BAB II

LANDASAN TEORI

2.1 Tinjauan Pustaka

Metode AHP telah banyak diterapkan untuk menangani berbagai macam persoalan. Misalnya dari jurnal yang ditulis oleh Bevilacqua dan Braglia pada tahun 2000 yang berjudul The Analytic Hierarchy Process Applied to Maintenance Strategy Selection ,berisi mengenai penerapan AHP untuk pemilihan strategi maintenance yang terbaik bagi perusahaan berdasarkan lima buah kriteria. Dari jurnal tersebut metode AHP memungkinkan pengambilan keputusan dengan lebih menyeluruh karena AHP mampu mengolah alternatif dalam jumlah yang besar secara efisien.

Dalam jurnal yang ditulis oleh Kang dan Lee pada tahun 2006 yang berjudul AHP-Based Decision-Making Process for Construction of Public Transportation City Model : Case Study of Jeju, Korea ,berisi mengenai penerapan AHP sebagai pembantu keputusan untuk pembangunan model transportasi umum. Jumlah kriteria yang digunakan dalam penerapan metode AHP ini adalah 4 buah kriteria. Alternatif yang ada berjumlah 3 buah dan dibandingkan berdasarkan tiap kriteria. Dari penerapan metode AHP ini ditemukan beberapa alternatif yang memiliki bobot yang besar dimana alternatif yang memiliki bobot evaluasi yang besar dianggap merupakan solusi yang terbaik. Dalam jurnal ini disimpulkan bahwa metode ini melakukan analisis multikriteria dan mencerminkan opini pakar. Metode AHP juga mudah dimanfaatkan oleh perencana guna pengambilan keputusan.

Dalam jurnal yang ditulis oleh Karpak dan Bayazit pada tahun 2005 yang berjudul An AHP Application in Vendor Selection, berisi mengenai penerapan metode AHP pada pemilihan vendor berdasarkan 3 buah kriteria. Hasil penjumlahan dari tiap perbandingan kriteria terhadap seluruh alternatif merupakan

hasil akhir. Dari jurnal tersebut disimpulkan bahwa dengan menggunakan metode AHP, pengambilan keputusan yang rumit yang dikarenakan oleh permasalan multiobjektif yang mana dapat bersifat kuantitatif maupun kualitatif dapat dikerjakan menggunakan metode AHP. Pengambilan keputusan tanpa menggunakan metode tertentu menyebabkan pengambilan keputusan tidak menyeluruh karena keterbatasan manusia dalam memproses informasi dalam jumlah yang besar. Dalam jurnal tersebut juga disebutkan bahwa kelemahan dari metode ini adalah AHP mengasumsikan kebebasan linear dari kriteria dan alternatif.

Dalam jurnal yang ditulis Teknomo yang berjudul Penggunaan Metode Analytic Hierarchy Process dalam Menganalisa Faktor-Faktor yang Mempengaruhi Pemilihan Moda ke Kampus, metode AHP digunakan untuk menganalisa faktor-faktor yang mempengaruhi moda ke kampus. Kriteria yang dipakai dalam penelitian tersebut adalah keamanan, kenyamanan, biaya dan waktu. Sedangan alternatif yang digunakan adalah kost, mobil pribadi, parkiran, sepeda motor, angkutan kampus dan angkutan umum. Dari hasil analisis sensitivitas / mengubah bobot dari masing-masing faktor sehingga bobot dari moda berubah, kita dapat melihat perubahan untuk tiap faktor yang berubah dan dapat digunakan untuk membantu penarikan suatu kebijakan.

Dalam jurnal yang ditulis oleh Surwaningsih dan Surwatuti yang berjudul Analytic Hierarchy Process (AHP) Dalam Pengawasan Laju Kebutuhan Obat**,** berisi mengenai penggunaan metode AHP dalam pengawasan laju kebutuhan obat terdapat 4 buah kriteria dan 3 buah alternatif. Dari jurnal tersebut disimpulkan bahwa dengan menggunakan metode AHP proses perbandingan alternatif dapat dilakukan lebih cepat dan akurat, proses perbandingan dapat dihitung secara simultan meskipun dengan jumlah alternatif yang besar dan pada akhirnya diperoleh solusi berupa alternatif solusi yang telah diprioritaskan.

Dalam jurnal yang ditulis Arifin berjudul Penerapan Metode Analytical Hierarchy Process (AHP) Untuk Menentukan Sisa Hasil Usaha Pada Koperasi

Pegawai Negeri, berisi mengenai penerapan metode AHP untuk menentukan sisa hasil usaha pada koprasi pegawai negri berdasarkan pada 4 buah kriteria. Dari hasil penghitungan manual dan penghitungan menggunakan perangkat lunak terdapat sedikit perbedaan hasil keluaran yang diakibatkan pembulatan angka dibelakang koma. Dari jurnal tersebut disimpulkan bahwa perhitungan sisa hasil usaha dapat diproses dengan singkat, akurat dan juga dapat menghindari kemungkinan kesalahan perhitungan untuk hasil pembagian tiap-tiap jenis SHU. Hasil akhir dari metode AHP adalah suatu angka yang mencerminkan bobot dari tiap-tiap alternatif, dimana bobot tersebut merupakan jumlah dari nilai dari bobot kriteria untuk masing-masing alternatif. Penggunaan metode AHP dalam perangka lunak mempermudah pengambilan keputusan secara cepat dan akurat.

Dari beberapa jurnal mengenai penerapan metode AHP guna membantu dan menentukan pengambilan keputusan dapat disimpulkan bahwa metode AHP merupakan metode yang dapat menangani masalah pembobotan kompleks dengan jumlah kriteria dan alternatif yang besar. Pengambilan keputusan yang dilakukan dengan metode AHP lebih menyeluruh karena memperhitungkan seluruh kriteria yang ada meskipun kriteria tersebut tidak terlalu signifikan.

2.2 Landasan Teori

AHP adalah teori pengukuran yang digunakan untuk memperoleh rasio dari perbandingan diskrit dan kontinu dimana perbandingan mungkin diambil berdasarkan pengukuran aktual atau dari skala dasar yang mencerminkan preferensi (Saaty, 1987 : 161). Metode AHP melakukan perbandingan bobot suatu kriteria yang dimiliki suatu objek terhadap kriteria lain yang dimiliki oleh objek yang sama.

Sangatlah mustahil bagi pembuat keputusan untuk menyadari semua faktor dalam pengambilan keputusan yang rumit, tanpa metode pendukung pengambilan keputusan seperti AHP, manajer mungkin hanya mendasarkan keputusan mereka pada sebagian dari kriteria yang dianggap penting tanpa memperdulikan kriteria

lainnya (Bayazit, Karpak, 2005 : 21). Seseorang mungkin membuat keputusan hanya dengan mendasarkan pada beberapa kriteria saja, namun dengan demikian bisa saja beberapa kriteria yang seharusnya penting dan dapat mempengaruhi keputusan menjadi terabaikan. Seseorang memiliki batasan dalam memutuskan bila mereka dihadapkan pada permasalahan dengan kriteria yang terlalu banyak sehingga mereka memerlukan suatu cara khusus untuk membantu pengambilan keputusan.

Untuk membuat keputusan dalam cara yang terorganisir untuk menghasilkan prioritas keputusan perlu diuraikan dengan mendefinisikan masalah, membuat hirarki yang terdiri dari goal/ tujuan, kriteria dan alternatif/ penyelesaian, membuat matriks berpasangan/ pairwise untuk melakukan perbandingan elemen kriteria sehingga memperoleh nilai prioritas, dimana nilai prioritas tersebut dapat digunakan untuk menghitung bobot yang dimiliki oleh masing-masing alternatif (Saaty, 2008 : 85).

Berdasarkan kriteria yang ada, Metode AHP membutuhkan pemberian preferensi diberikan sebanyak (n x (n-1)) / 2 kali dengan n adalah jumlah dari kriteria yang ada. Pada contoh terdapat 5 kriteria maka pemberian preferensi dilakukan sebanyak (5 x (5-1)) / 2 = 10 kali. Pemberian preferensi dilakukan dengan membandingkan tiap kriteria dengan kriteria lain.

Untuk membuat perbandingan, diperlukan skala angka yang menunjukkan seberapa besar suatu elemen lebih penting atau dominan jika dibandingkan dengan elemen lain yang berkaitan dengan kriteria (Saaty, 2008 : 85). Skala angka merupakan nilai dari kepentingan suatu elemen dibandingkan dengan nilai kepentingan elemen pembaginya. Semakin besarnya skala angka menunjukan bahwa suatu elemen memiliki nilai kepentingan yang semakin besar atau lebih dominan.

Preferensi subjektif pengguna terhadap kriteria akan menjadi inputan bagi metode AHP. Preferensi pengguna dihasilkan dengan cara membandingkan

tingkat kepentingan sebuah kriteria terhadap tingkat kepentingan kriteria lainnya. Nilai kepentingan suatu elemen dapat dilihat dari gambar dibawah ini.

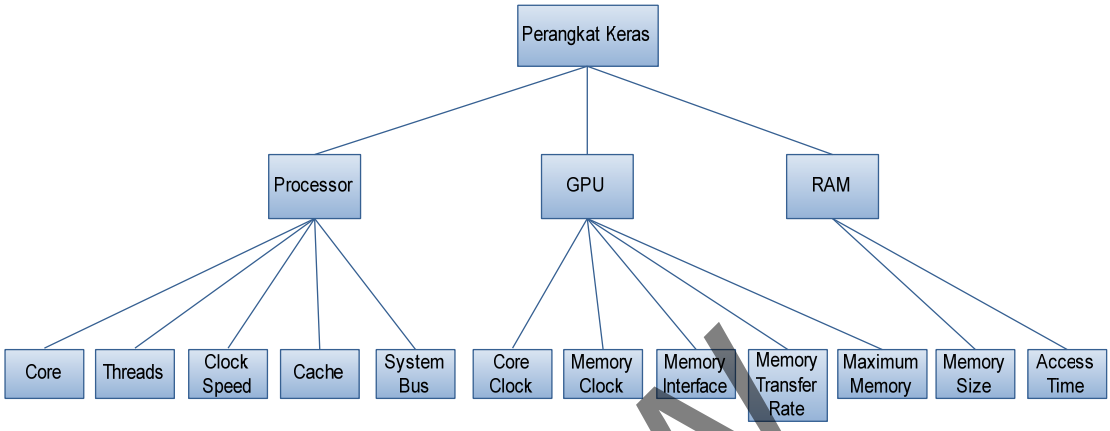
Intensity of Importance	*Definition*	*Explanation*
1	Equal Importance	Two activities contribute equally to the objective
2	Weak or slight	
3	Moderate importance	Experience and judgement slightly favour one activity over another
4	Moderate plus	
5	Strong importance	Experience and judgement strongly favour one activity over another
6	Strong plus	
7	Very strong or demonstrated importance	An activity is favoured very strongly over another; its dominance demonstrated in practice
8	Very, very strong	
9	Extreme importance	The evidence favouring one activity over another is of the highest possible order of affirmation
Reciprocals of above	If activity *i* has one of the above non-zero numbers assigned to it when compared with activity *j*, then *j* has the reciprocal value when compared with *i*	A reasonable assumption
1.1–1.9	If the activities are very close	May be difficult to assign the best value but when compared with other contrasting activities the size of the small numbers would not be too noticeable, yet they can still indicate the relative importance of the activities.

Gambar 2.1 Tingkat Kepentingan (T.L. Saaty, 2008)

Dari hasil perbandingan akan didapatkan beberapa nilai yang disebut vektor prioritas atau prioritas lokal dari kriteria dimana nilai tersebut mencerminkan tingkat kepentingan suatu kriteria dibandingkan dengan tingkat kepentingan keseluruhan kriteria yang ada dan nilai tersebut dinormalkan ke dalam bentuk persentase. Pada tahap ini nilai dari prioritas global sama dengan nilai dari prioritas lokal.

Tiap alternatif harus memiliki kriteria yang sama agar dapat dibandingkan. Tiap alternatif dibandingkan dengan alternatif lain secara berpasangan berdasarkan kriterianya sehingga akan menghasilkan prioritas lokal dari alternatif. Proses pembobotan dilanjutkan dengan mengalikan vektor prioritas / prioritas lokal dari kriteria dengan prioritas lokal dari alternatif sehingga menghasilkan

prioritas global dari alternatif. Pada hirarki ini nilai prioritas lokal berbeda dengan nilai dari prioritas global.



Gambar 2.2 Hirarki AHP Untuk Kasus Pemilihan Perangkat Keras

Jadi pada umumnya prosedur penerapan metode AHP adalah memilih kriteria dan alternatif, pembobotan preferensi, melakukan perbandingan berpasangan, mendapatkan bobot global dan lokal. Proses tersebut dilakukan untuk tiap kriteria dan alternatif. Preferensi juga dapat dihitung rasio konsistensinya guna mengetahui apakah pemberian preferensi yang dilakukan bersifat konsisten atau tidak konsisten.

AHP mempunyai beberapa landasan :

1. Perbandingan timbal balik : pengambilan keputusan berdasarkan perbandingan preferensi pengambil keputusan, jika preferensi A terhadap B adalah 1 : 2 maka A lebih disukai ½ kali daripada B dan preferensi B terhadap A harus 2 : 1 atau B lebih disukai 2 kali dariapada A.

2. Homogenitas : preferensi sebagai pembanding memiliki kesamaan agar dapat dibandingan.

3. Ketergantungan : ketergantungan terhadap tingkat di atasnya, misalnya ketergantungan alternatif yang berada dibawah suatu kriteria.

4. Ekspetasi : hasil dari metode AHP ini merupakan ekspektasi yang didasarkan oleh preferensi pengguna berdasarkan pada keseluruhan kriteria.

Beberapa prinsip dari AHP adalah :

1. Dekomposisi : memecah persoalan menjadi unsur-unsur yang lebih kecil yaitu kriteria dan alternatif kemudian disusun menjadi sebuah hirarki, hasil yang lebih akurat akan diperoleh dengan memecah elemen menjadi lebih kecil.

2. Penilaian komparatif : penilaian dengan perbandingan matriks perbandingan berpasangan atau pairwise.

3. Sintesis atau penyimpulan prioritas : menggunakan nilai eigen untuk menentukan bobot dimana bobot tersebut merupakan hasil perbandingan dari keseluruhan bobot.

4. Konsistensi logis : pengukuran konsistensi terhadap preferensi menggunakan nilai rasio konsistensi dimana nilai tersebut digunakan untuk mengukur seberapa besar ketidakkonsistenan preferensi pengambil keputusan. Ketidakkonsistenan yang dimiliki pengambil keputusan masih dapat ditolerir apabila nilai rasio konsistensi tidak lebih dari 0,1.

BAB III

Analisis dan Perancangan Sistem

Materi yang digunakan sebagai referensi adalah beberapa jurnal ilmiah mengenai penerapan metode AHP terhadap kasus tertentu. Teori dasar dari metode AHP didapatkan dari berbagai jurnal yang ditulis oleh pencipta metode AHP yaitu Thomas L. Saaty.

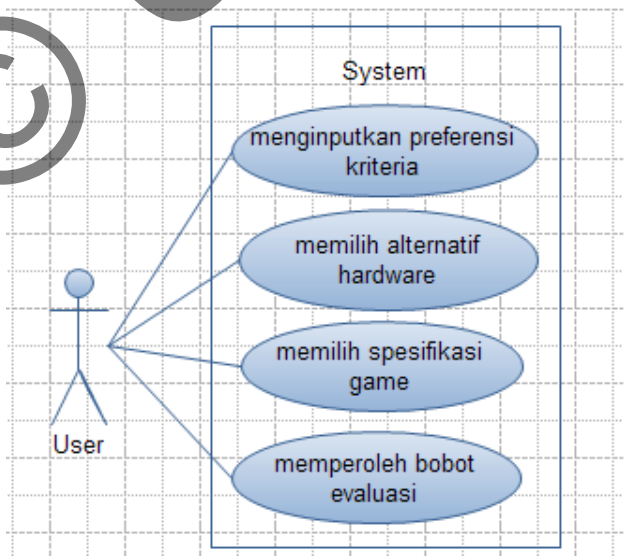
Objek yang digunakan dalam melakukan riset yaitu data mengenai processor, GPU dan RAM yang diperoleh dari form website di bawah ini :

http://www.intel.com

http://www.geforce.com

http://www.hardwaresecrets.com

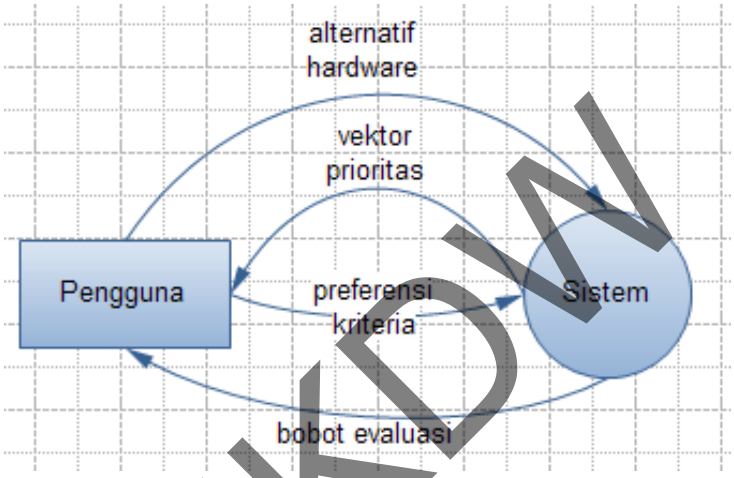
3.1 Use Case Diagram



Gambar 3.1 Use Case Diagram

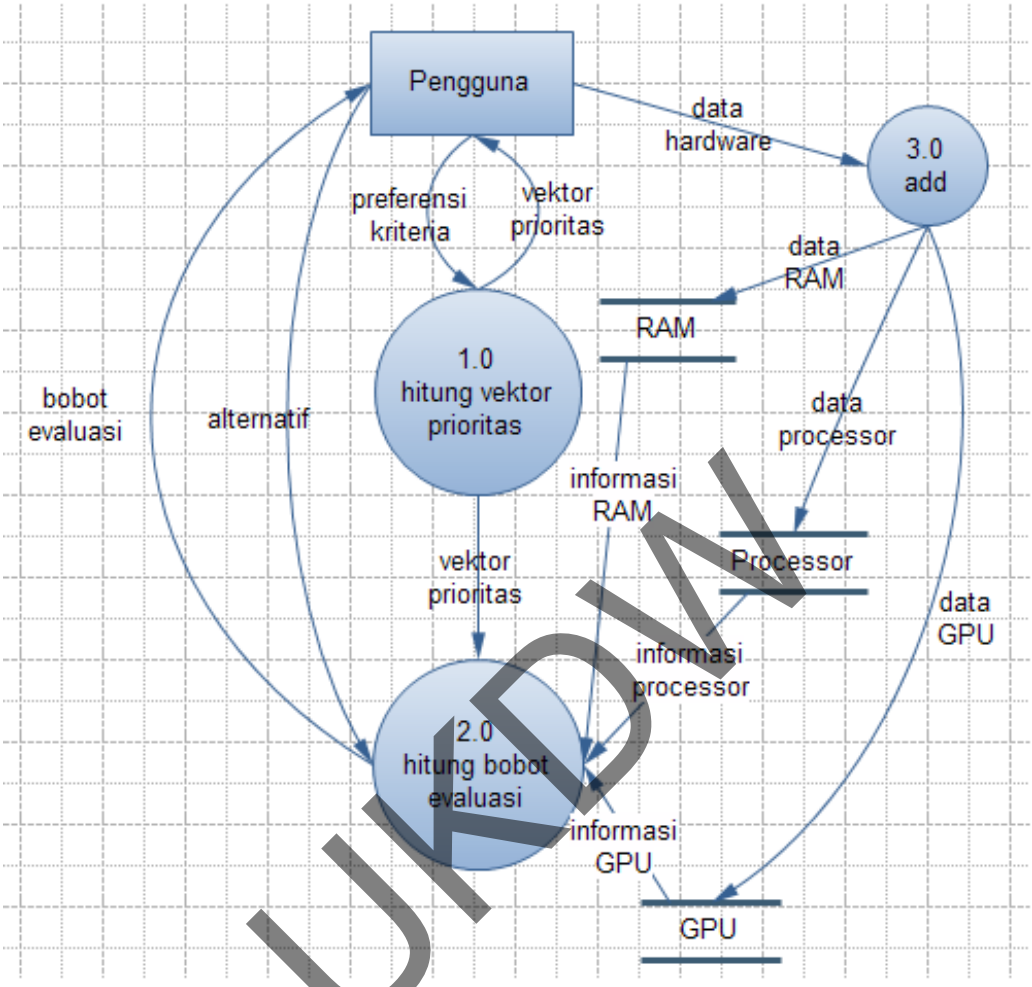
Pengguna menginputkan preferensinya terhadap kriteria-kriteria yang dimiliki perangkat keras. Pengguna memilih beberapa perangkat keras berupa processor, RAM dan GPU yang akan dibandingkan. Sistem akan memproses inputan pengguna, melakukan perhitungan dan menghasilkan bobot evaluasi dari tiap perangkat keras.

3.2 Data Flow Diagram



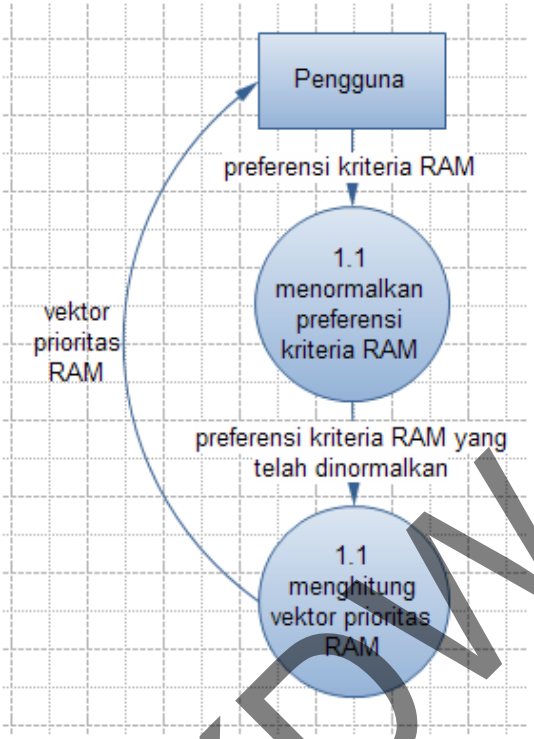
Gambar 3.2 Data Flow Diagram Level 0

Pengguna memberi input berupa preferensi terhadap kriteria processor, GPU, RAM dan perangkat keras ke sistem dan sistem akan menghasilkan vektor priotitas processor, RAM, GPU dan perangkat keras. Pengguna memilih alternatif untuk processor, RAM, GPU dan sistem akan menghasilkan bobot evaluasi processor, RAM, GPU dan perangkat keras.

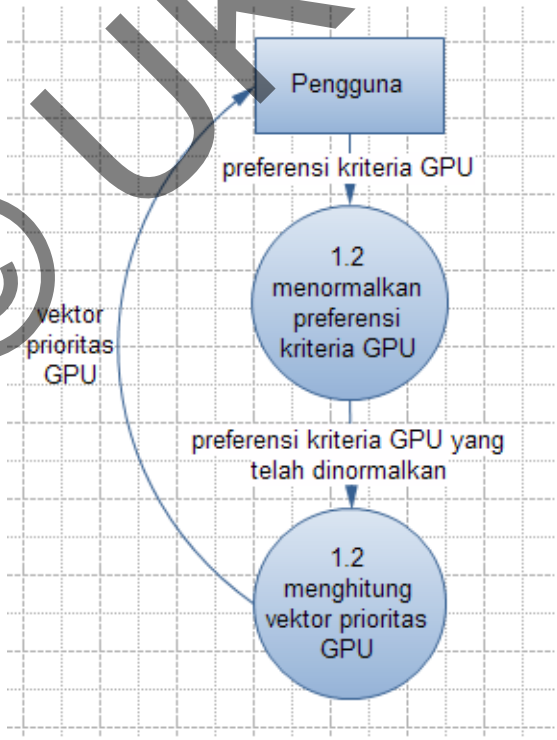


Gambar 3.3 Data Flow Diagram Level 1

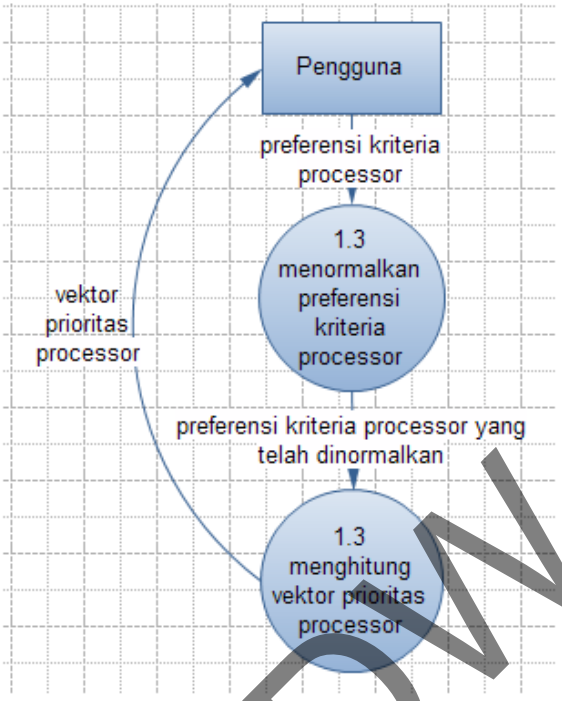
Pengguna memberi preferensi kriteria untuk menghitung vektor prioritas. Pengguna memilih alternatif dan sistem akan mengambil informasi mengenai perangkat keras yang dimiliki oleh alternatif. Bobot evaluasi akan dihitung menggunakan vektor prioritas dan informasi perangkat keras.



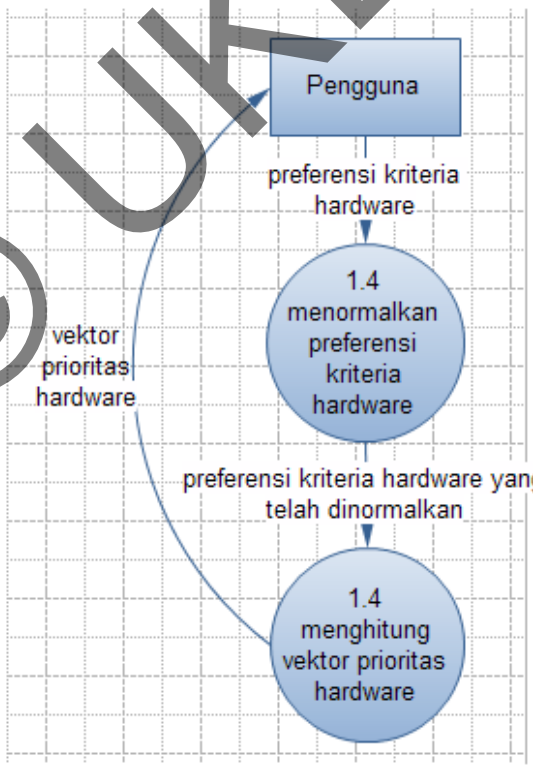
Tabel 3.4 Data Flow Diagram Level 2 Hitung Vektor Prioritas RAM



Tabel 3.5 Data Flow Diagram Level 2 Hitung Vektor Prioritas GPU

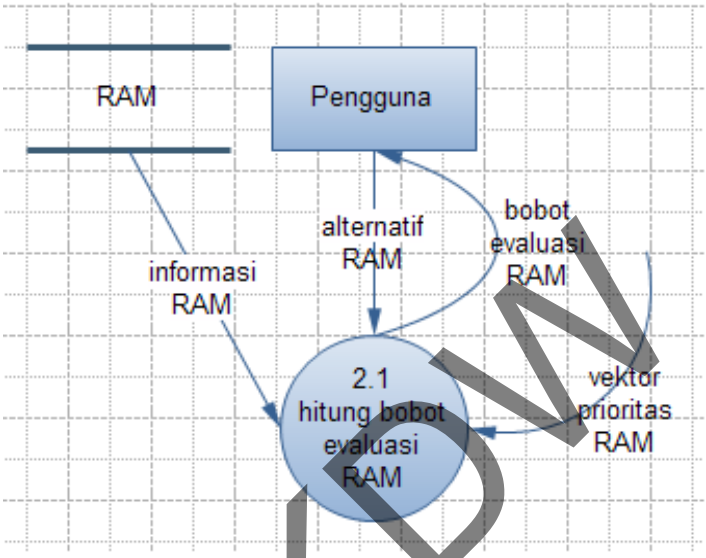


Tabel 3.6 Data Flow Diagram Level 2 Hitung Vektor Prioritas Processor

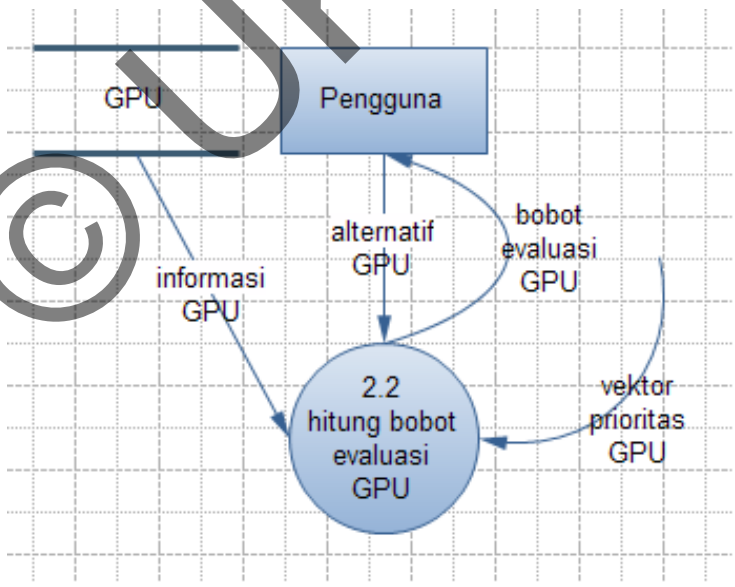


Tabel 3.7 Data Flow Diagram Level 2 Hitung Vektor Prioritas Hardware

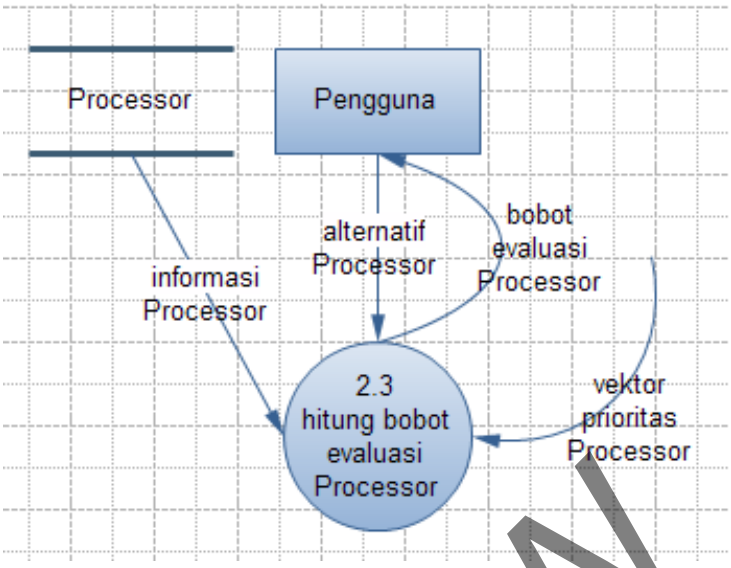
Penghitungan vektor kriteria dilakukan dengan terlebih dahulu menormalkan matriks preferensi kriteria pengguna. Nilai preferensi yang terdapat pada matriks dijumlahkan dan dibagi dengan jumlah kriteria sehingga menghasilkan vektor kriteria.



Tabel 3.8 Data Flow Diagram Level 2 Hitung Bobot Evaluasi RAM

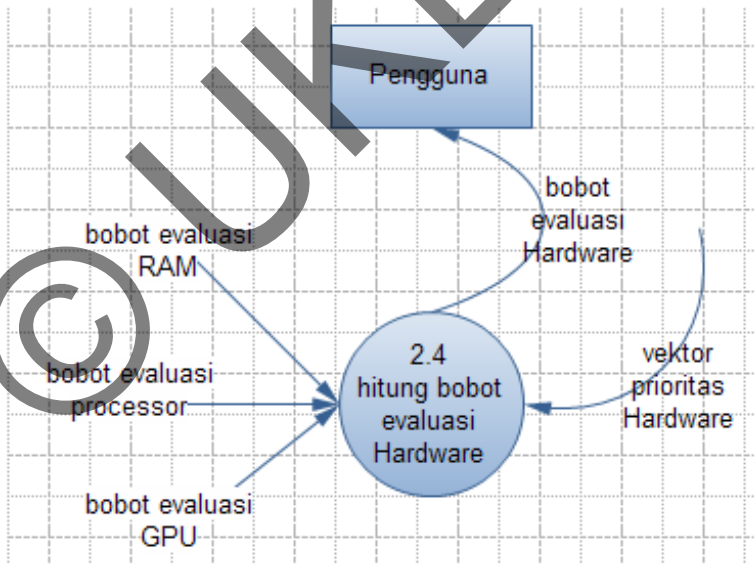


Tabel 3.9 Data Flow Diagram Level 2 Hitung Bobot Evaluasi GPU



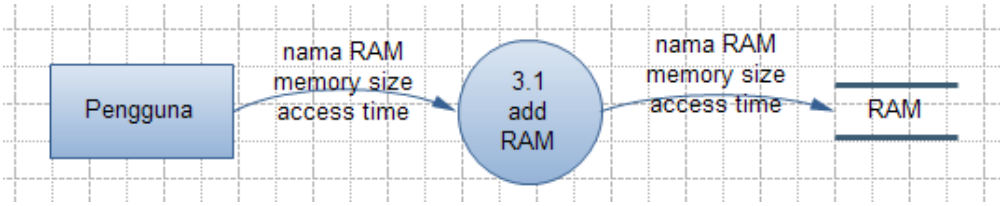
Tabel 3.10 Data Flow Diagram Level 2 Hitung Bobot Evaluasi Processor

Pengguna memilih alternatif dan sistem akan mengambil, informasi dari alternatif yang terdapat di database dan vektor prioritas yang telah dihitung.

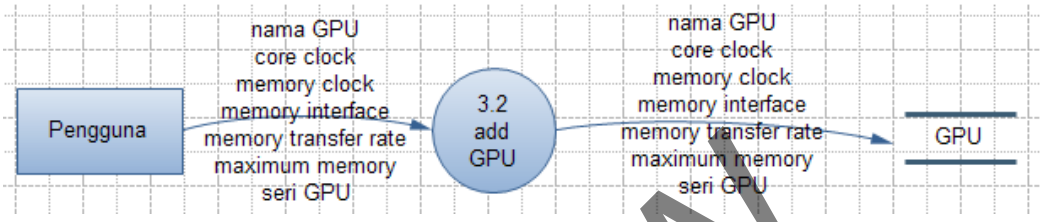


Tabel 3.11 Data Flow Diagram Level 2 Hitung Bobot Evaluasi Hardware

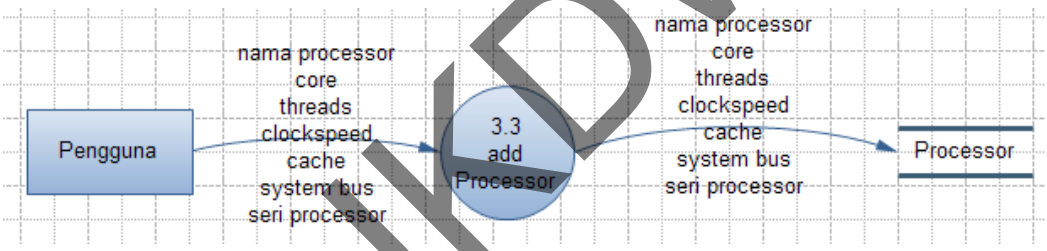
Sistem akan menghitung bobot evaluasi hardware menggunakan vektor prioritas hardware, bobot evaluasi RAM, bobot evaluasi GPU dan bobot evaluasi processor.



Tabel 3.12 Data Flow Diagram Level 2 Add RAM



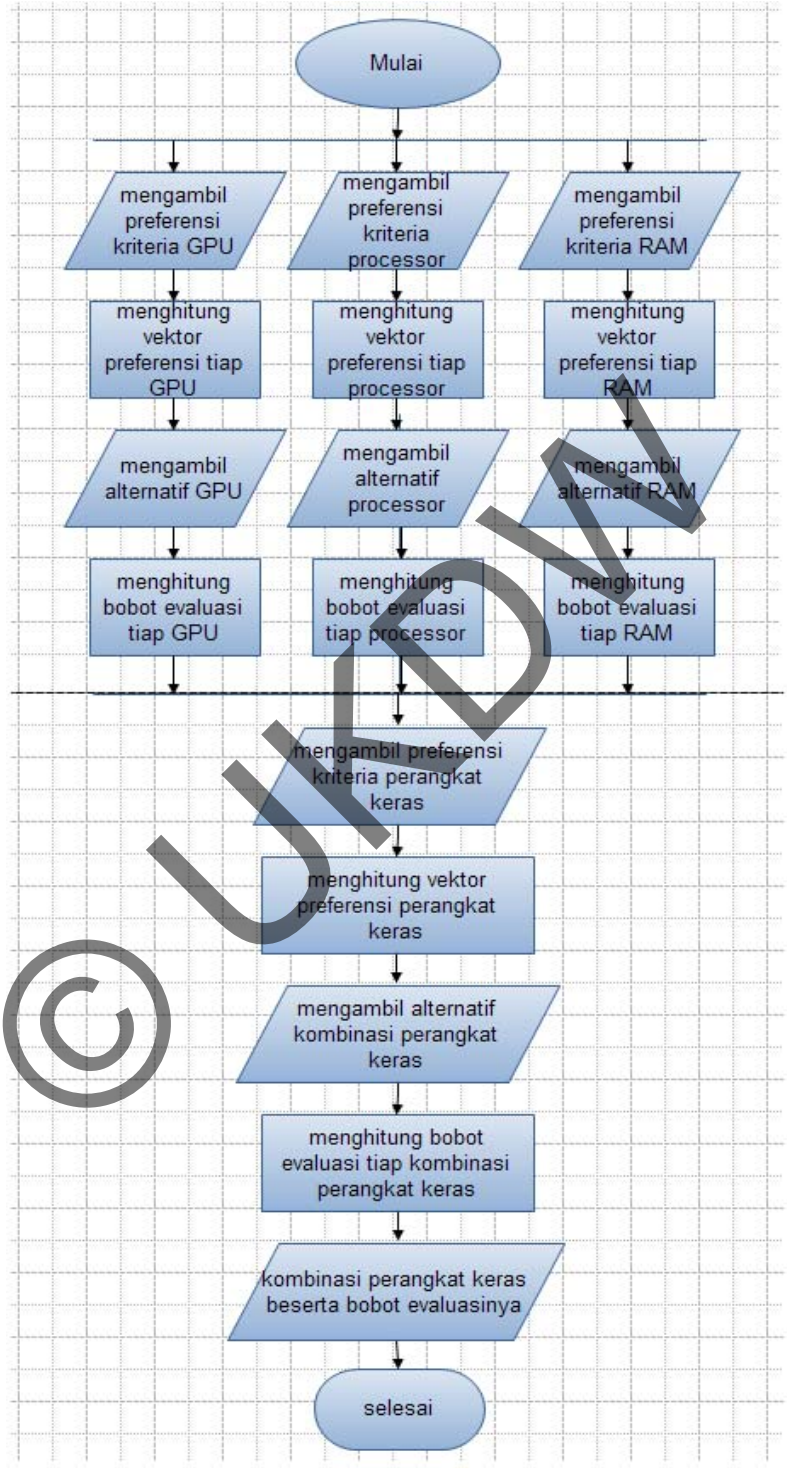
Tabel 3.13 Data Flow Diagram Level 2 Add GPU



Tabel 3.14 Data Flow Diagram Level 2 Add Processor

Pengguna menginputkan data processor, GPU dan RAM yang berupa nama dan nilai yang dimiliki kriterianya kemudian akan disimpan di database.

3.3 Flowchart

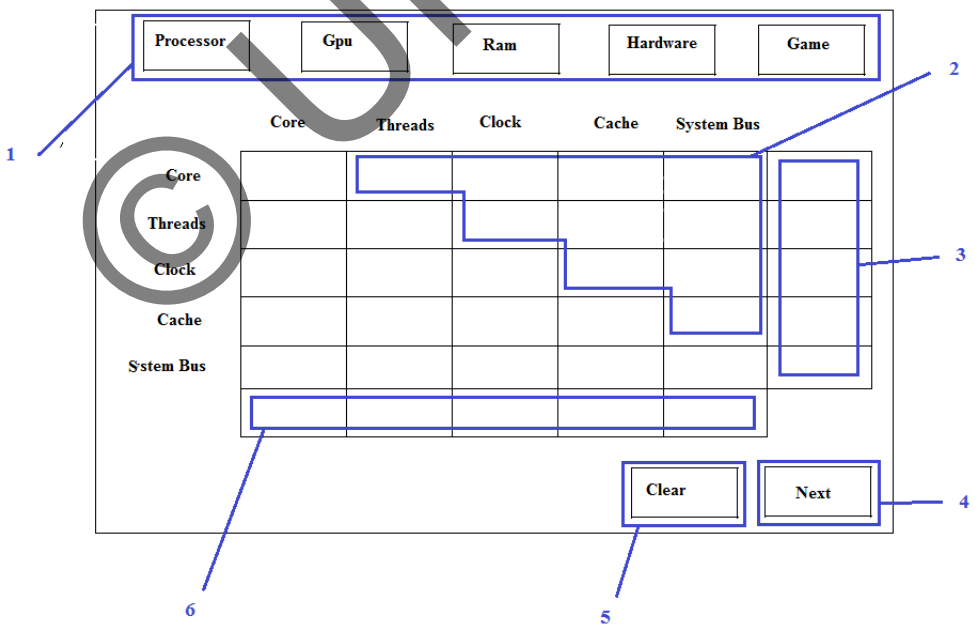


Gambar 3.15 Flowchart Proses Program

Pengguna memberi input yang berupa preferensi terhadap kriteria yang dimiliki oleh processor, RAM dan GPU. Sistem akan menghitung bobot dari tiap kriteria. Pengguna memilih processor, RAM atau GPU yang ingin dibandingkan. Pengguna tidak perlu menginputkan preferensi terhadap alternatif yang telah dipilih karena akan diisi secara otomatis oleh sistem menggunakan data yang terdapat pada database. Setelah proses tersebut dilakukan kepada processor RAM dan GPU. Pengguna menginputkan preferensi mereka terhadap perangkat keras yang berupa processor, GPU dan RAM. Sistem akan menghitung bobot dari tiap kriteria dan sistem akan mengkombinasikan seluruh processor, RAM dan GPU yang ada kemudian memberikan bobot evaluasi dari tiap kombinasi sebagai keluaran.

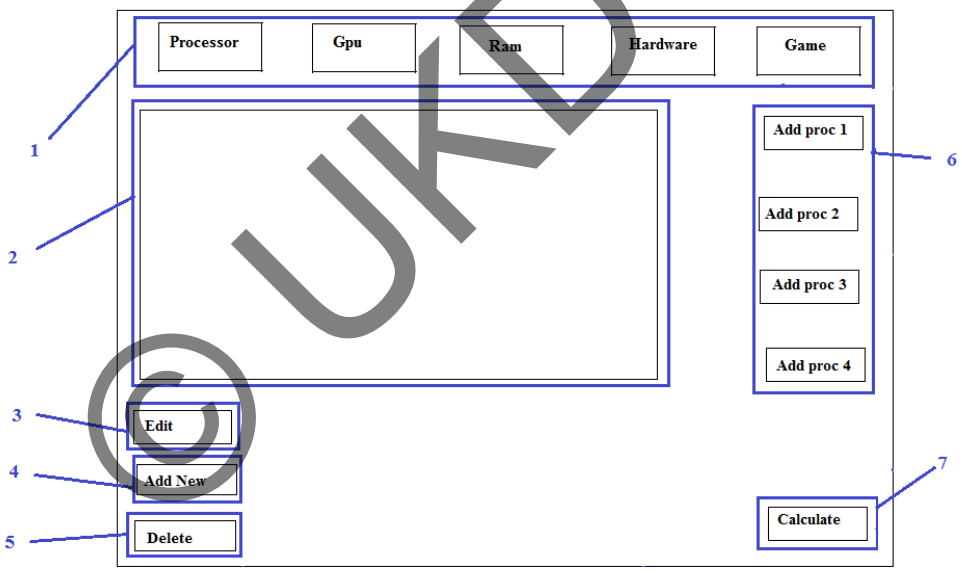
3.4 Mockup

Berikut merupakan mockup dari tiap form aplikasi yang akan dibangun beserta penjelasan mengenai fungsi dari tiap komponennya :



Gambar 3.16 Mockup Form Kriteria Processor

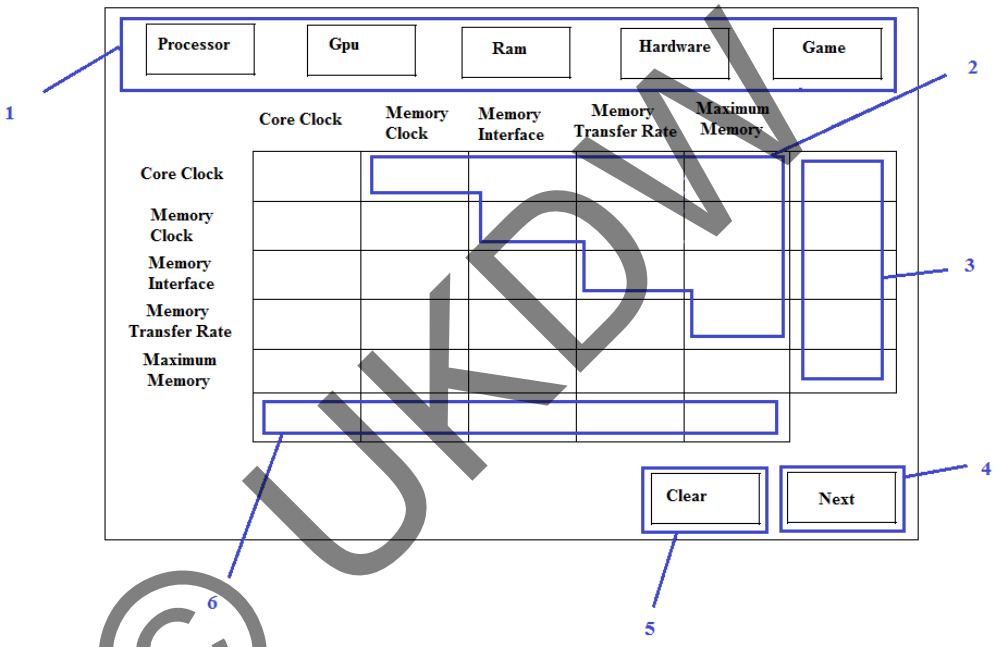
1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel dimana pengguna dapat memberikan inputan berupa preferensi terhadap kriteria dari processor
3. Kolom keluaran yang berisi penjumlahan inputan pengguna secara horizontal
4. Tombol untuk melakukan penghitungan bila seluruh tabel telah terisi dan berpindah ke form alternatif processor
5. Tombol untuk menghapus inputan preferensi pengguna
6. Kolom keluaran yang berisi penjumlahan inputan pengguna secara vertikal



Gambar 3.17 Mockup Form Alternatif Processor

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel yang berisi daftar processor yang berisi nama processor, jumlah core, threads, clock, cache dan system bus yang dimiliki.

3. Tombol untuk memunculkan form edit processor
4. Tombol untuk memunculkan form add processor
5. Tombol untuk menghapus sebuah processor
6. Tombol untuk memilih processor yang akan dibandingkan
7. Tombol untuk melakukan perbandingan dari tiap processor yang telah dipilih dan akan menghasilkan bobot evaluasi



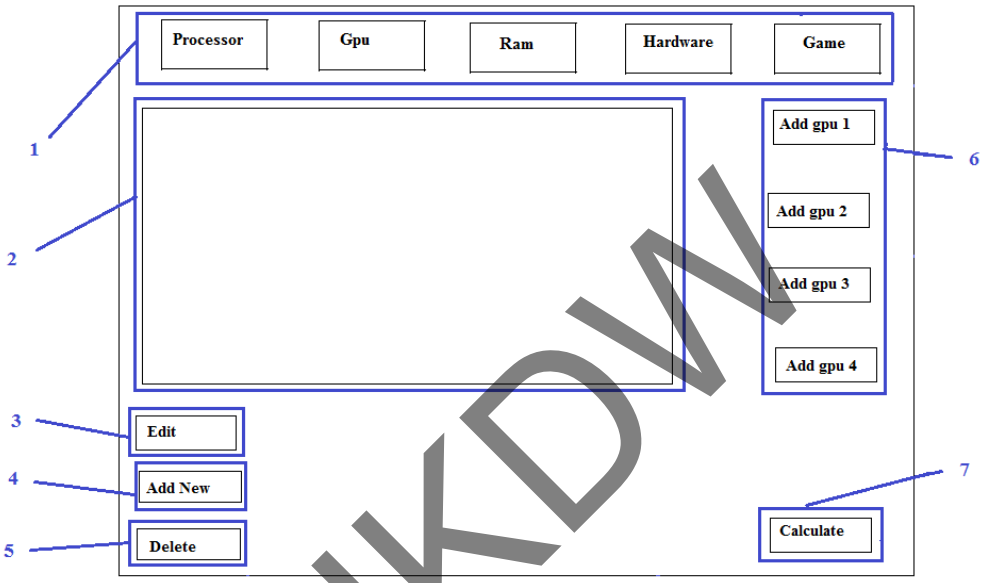
Gambar 3.18 Mockup Form Kriteria GPU

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel dimana pengguna dapat memberikan inputan berupa preferensi terhadap kriteria dari GPU
3. Kolom keluaran yang berisi penjumlahan inputan pengguna secara horizontal

4. Tombol untuk melakukan penghitungan bila seluruh tabel telah terisi dan berpindah ke form alternatif GPU

5. Tombol untuk menghapus inputan preferensi pengguna

6. Kolom keluaran yang berisi penjumlahan inputan pengguna secara vertikal



Gambar 3.19 Mockup Form Alternatif GPU

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)

2. Tabel yang berisi daftar processor yang berisi nama GPU, core clock, memory clock, memory interface, memory transfer rate dan maximum memory yang dimiliki.

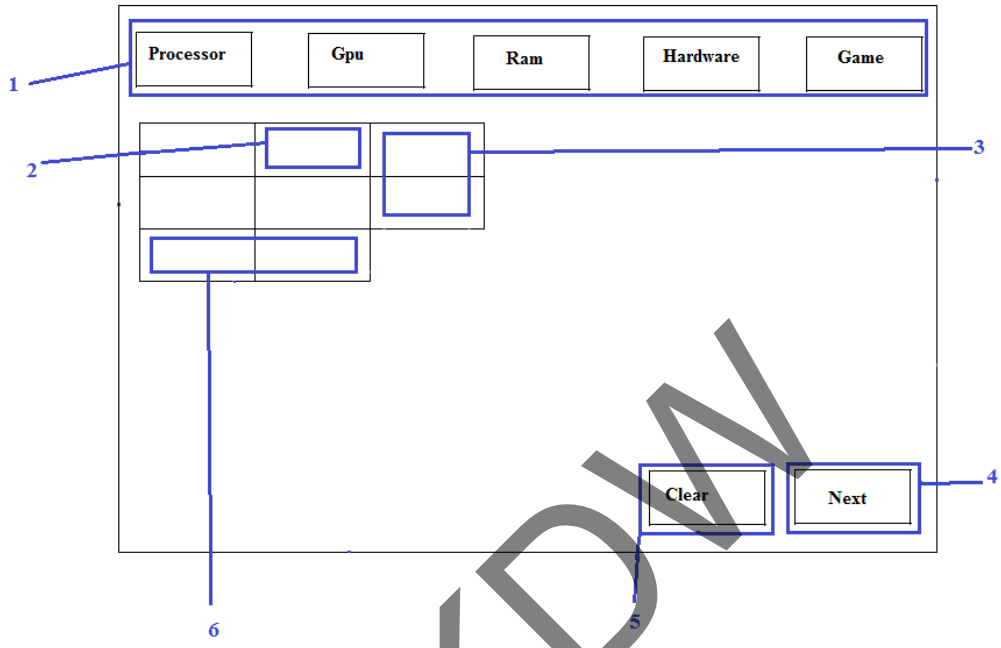
3. Tombol untuk memunculkan form fdit GPU

4. Tombol untuk memunculkan form add GPU

5. Tombol untuk menghapus sebuah GPU

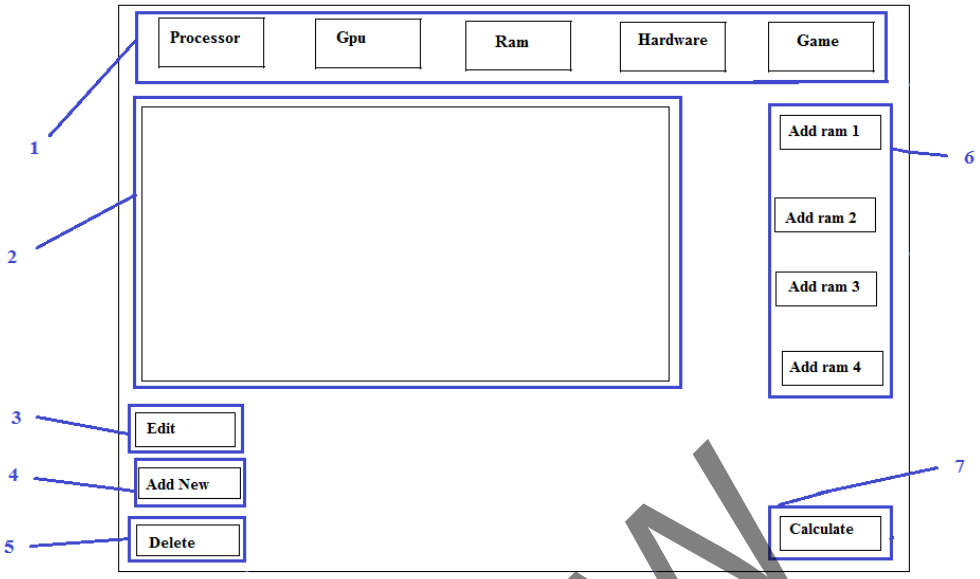
6. Tombol untuk memilih GPU yang akan dibandingkan

7. Tombol untuk melakukan perbandingan dari tiap GPU yang telah dipilih dan akan menghasilkan bobot evaluasi



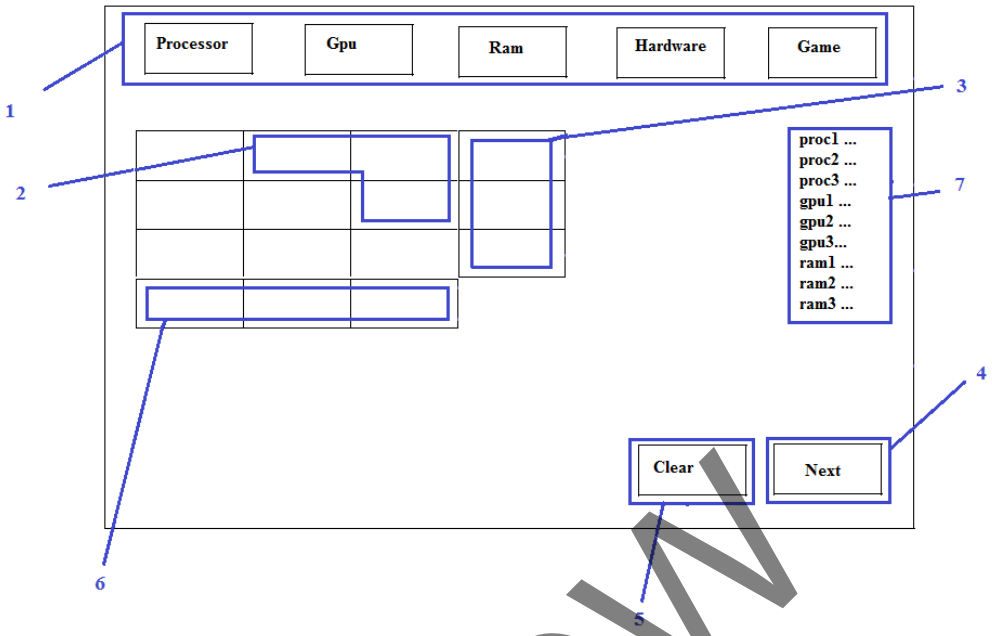
Gambar 3.20 Mockup Form Kriteria RAM

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel dimana pengguna dapat memberikan inputan berupa preferensi terhadap kriteria dari RAM
3. Kolom keluaran yang berisi penjumlahan inputan pengguna secara horizontal
4. Tombol untuk melakukan penghitungan bila seluruh tabel telah terisi dan berpindah ke form alternatif RAM
5. Tombol untuk menghapus inputan preferensi pengguna
6. Kolom keluaran yang berisi penjumlahan inputan pengguna secara vertikal



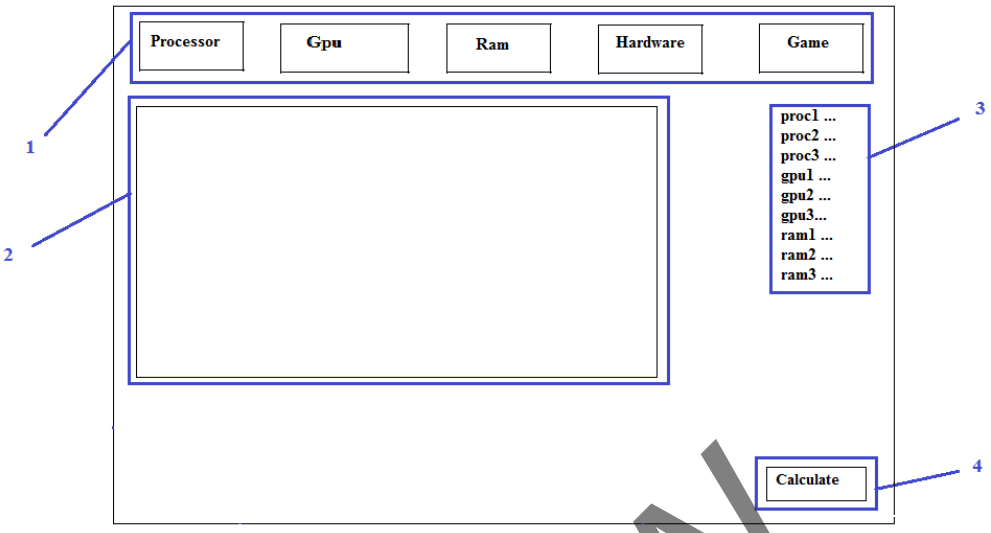
Gambar 3.21 Mockup Form Alternatif RAM

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel yang berisi daftar processor yang berisi nama RAM, acces time dan memory size yang dimiliki.
3. Tombol untuk memunculkan form edit RAM
4. Tombol untuk memunculkan form add RAM
5. Tombol untuk menghapus sebuah RAM
6. Tombol untuk memilih RAM yang akan dibandingkan
7. Tombol untuk melakukan perbandingan dari tiap RAM yang telah dipilih dan akan menghasilkan bobot evaluasi



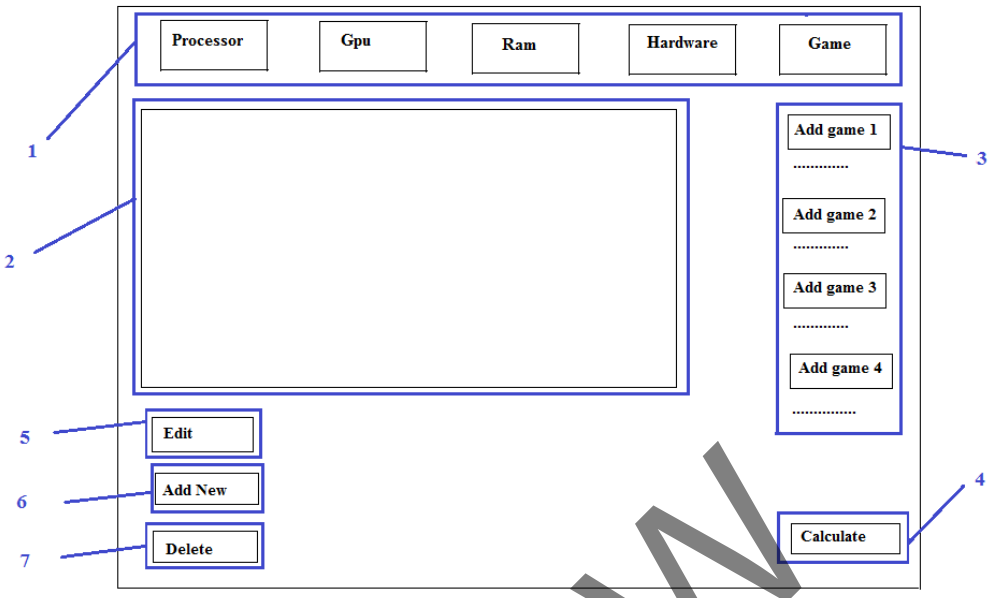
Gambar 3.22 Mockup Form Kriteria Hardware

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel dimana pengguna dapat memberikan inputan berupa preferensi terhadap kriteria dari perangat keras
3. Kolom keluaran yang berisi penjumlahan inputan pengguna secara horizontal
4. Tombol untuk melakukan penghitungan bila seluruh tabel telah terisi dan berpindah ke form alternatif hardware
5. Tombol untuk menghapus inputan preferensi pengguna
6. Kolom keluaran yang berisi penjumlahan inputan pengguna secara vertikal
7. Nama dari perangkat keras yang telah dipilih beserta bobotnya



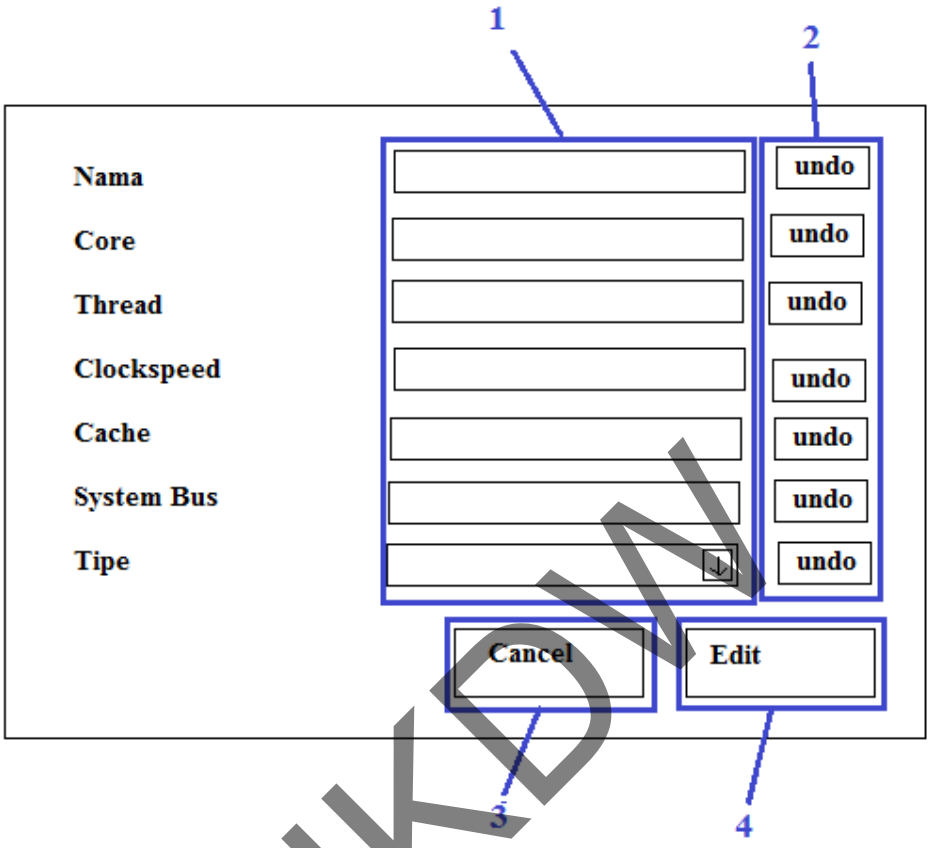
Gambar 3.23 Mockup Form Alternatif Hardware

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel yang berisi kombinasi processor, RAM dan GPU beserta bobot evaluasinya
3. Daftar processor, GPU dan RAM yang telah dipilih beserta bobot evaluasi yang dimiliki
4. Tombol untuk melakukan kombinasi dari processor, RAM dan GPU dan menghasilkan nilai dari tiap kombinasi



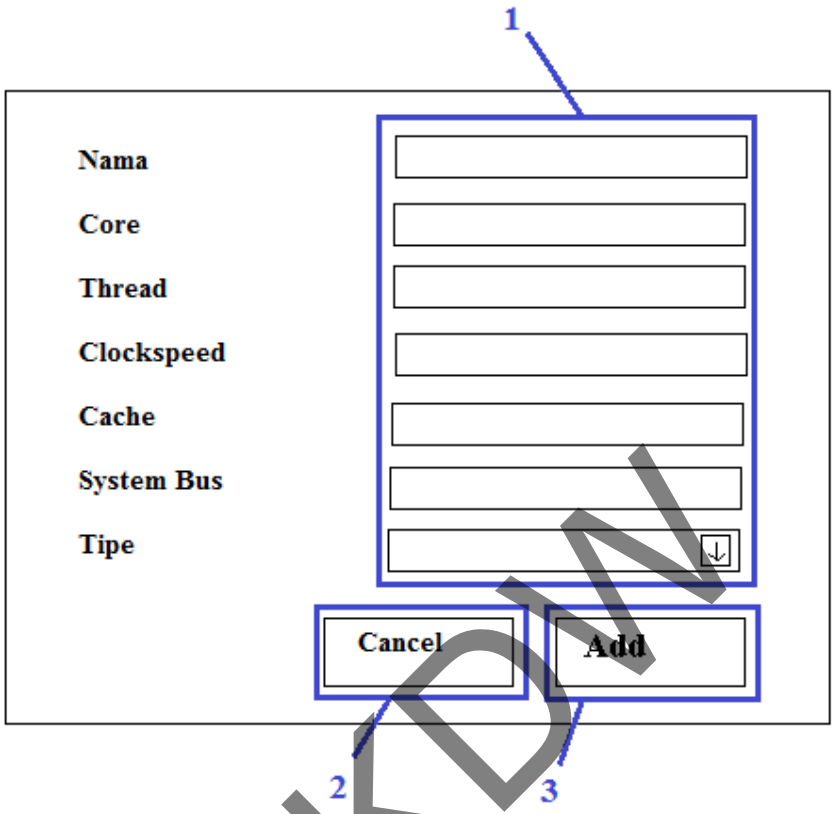
Gambar 3.24 Mockup Form Game

1. Tombol untuk berpindah ke form lain (form kriteria processor, form kriteria GPU, form kriteria RAM, form kriteria hardware, form game)
2. Tabel yang berisi daftar game beserta spesifikasinya
3. Tombol untuk melakukan penambahan game sebagai spesifikasi
4. Tombol untuk memunculkan form edit game
5. Tombol untuk memunculkan form add game
6. Tombol untuk menghapus sebuah data game



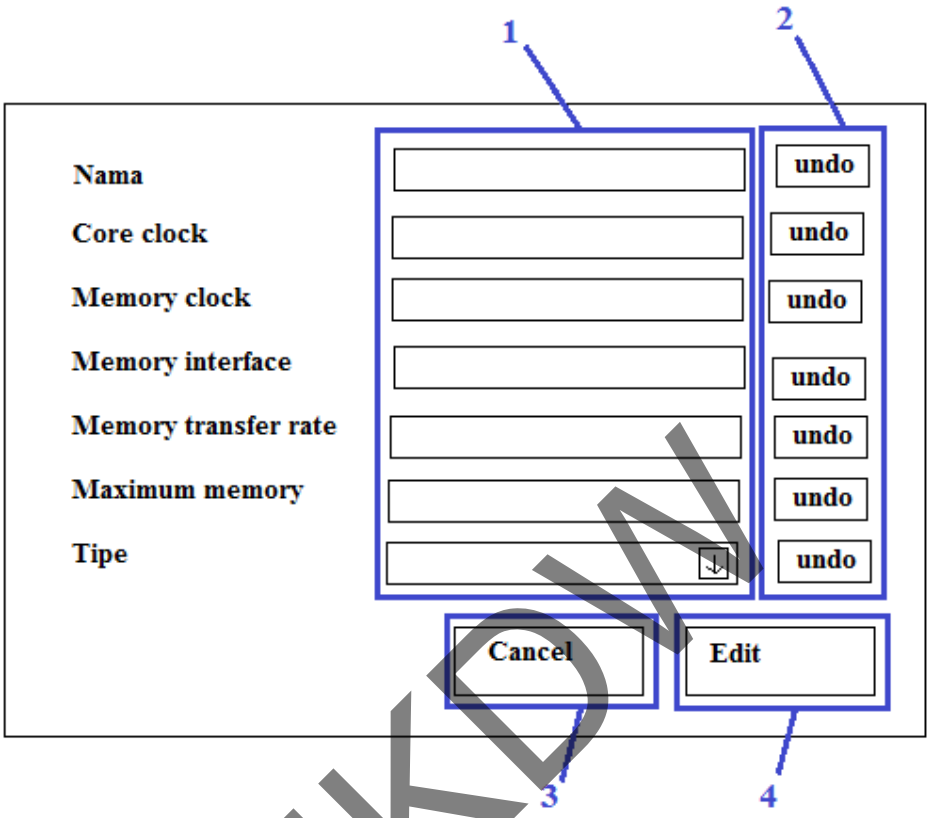
Gambar 3.25 Mockup Form Edit Processor

1. Textbox untuk menuliskan inputan nama processor, core, thread, clockspeed, cache, system bus, tipe processor
2. Tombol untuk mengatur ulang inputan seperti semula
3. Tombol untuk membatalkan edit data
4. Tombol untuk melakukan edit data



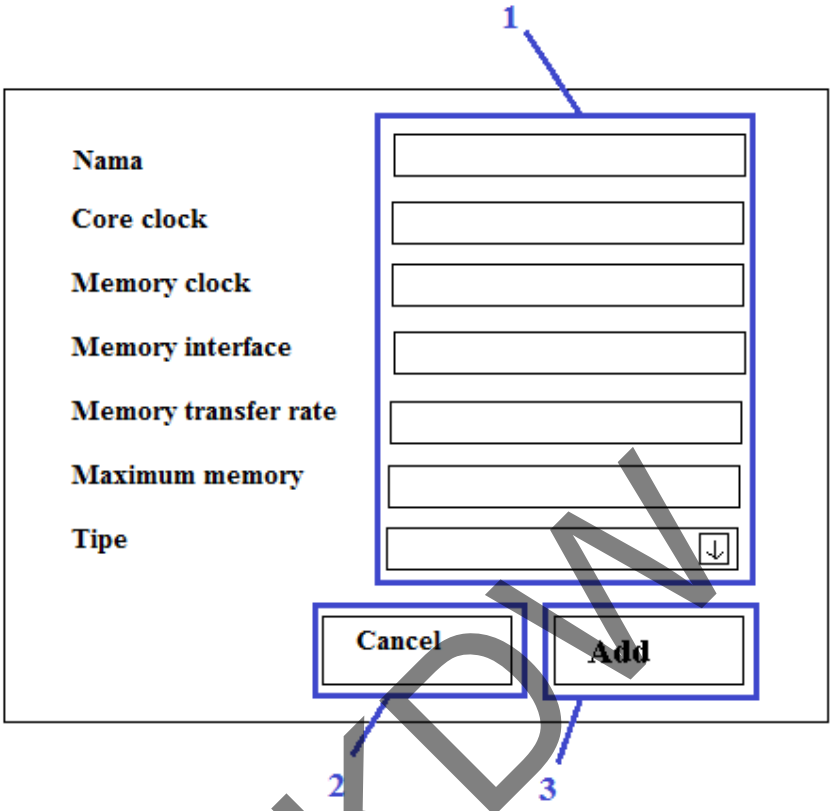
Gambar 3.26 Mockup Form Add Processor

1. Textbox untuk menuliskan inputan nama processor, core, thread, clockspeed, cache, system bus, tipe processor
2. Tombol untuk membatalkan penambahan data
3. Tombol untuk melakukan penambahan data



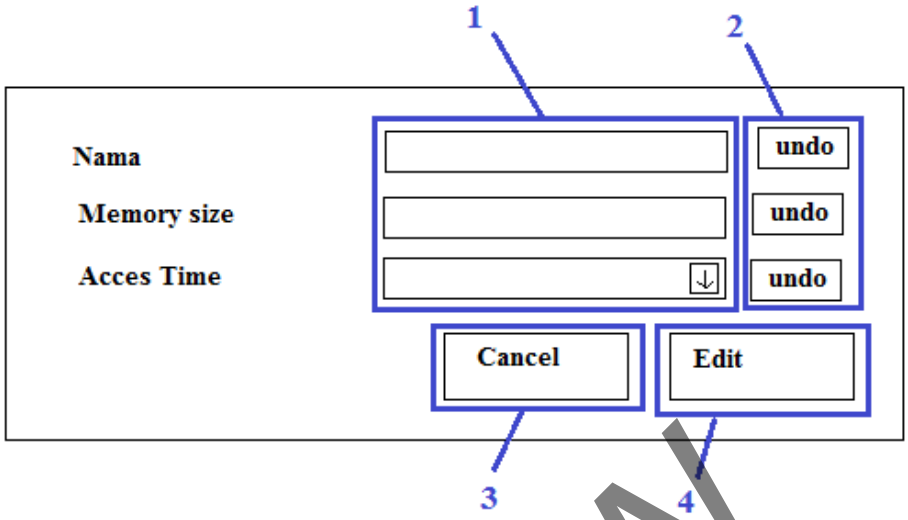
Gambar 3.27 Mockup Form Edit GPU

1. Textbox untuk menuliskan inputan nama GPU, core clock, memory clock, memory interface, memory transfer rate, maximum memory dan tipe GPU
2. Tombol untuk mengatur ulang inputan seperti semula
3. Tombol untuk membatalkan edit data
4. Tombol untuk melakukan edit data



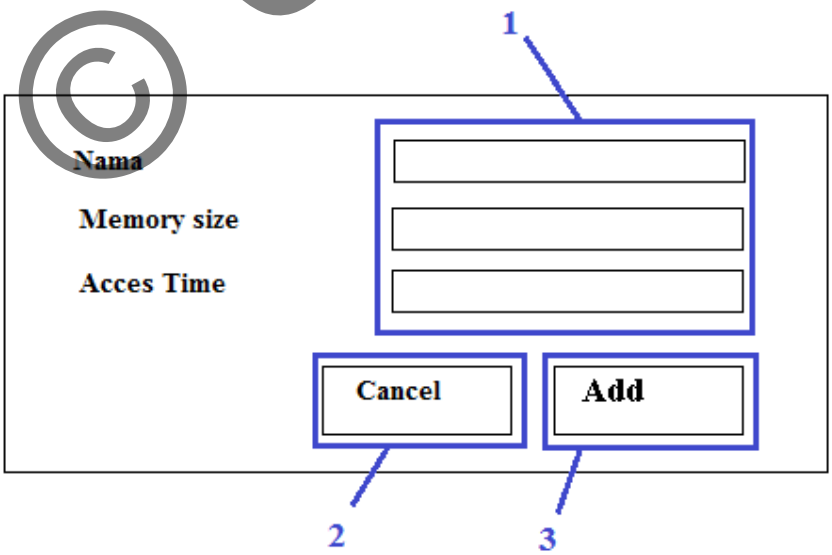
Gambar 3.28 Mockup Form Add GPU

1. Textbox untuk menuliskan inputan nama GPU, core clock, memory clock, memory interface, memory transfer rate, maximum memory dan tipe GPU
2. Tombol untuk membatalkan penambahan data
3. Tombol untuk melakukan penambahan data



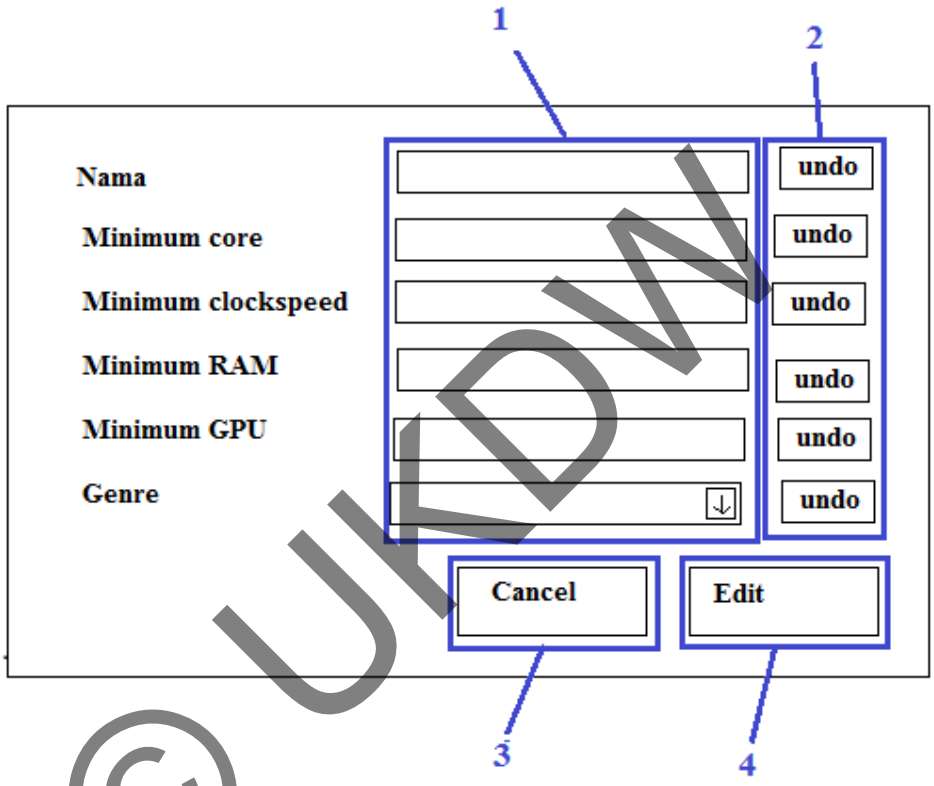
Gambar 3.29 Mockup Form Edit RAM

1. Textbox untuk menuliskan inputan nama RAM, memory size dan acces time
2. Tombol untuk mengatur ulang inputan seperti semula
3. Tombol untuk membatalkan edit data
4. Tombol untuk melakukan edit data



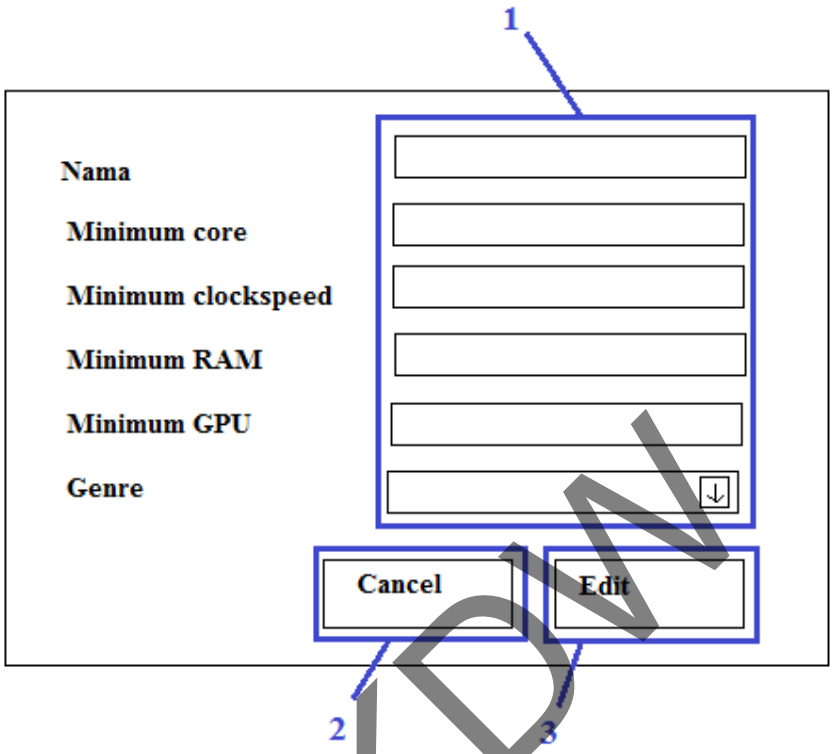
Gambar 3.30 Mockup Form Add RAM

1. Textbox untuk menuliskan inputan nama RAM, memory size dan acces time
2. Tombol untuk membatalkan penambahan data
3. Tombol untuk melakukan penambahan data



Gambar 3.31 Mockup Form Edit Game

1. Textbox untuk menuliskan inputan nama game, minimum core, minimum clockspeed, minimum RAM, minimum GPU dan genre
2. Tombol untuk mengatur ulang inputan seperti semula
3. Tombol untuk membatalkan edit data
4. Tombol untuk melakukan edit data



Gambar 3.32 Mockup Form Add Game

1. Textbox untuk menuliskan inputan nama game, minimum core, minimum clockspeed, minimum RAM, minimum GPU dan genre
2. Tombol untuk membatalkan penambahan data
3. Tombol untuk melakukan penambahan data

BAB IV

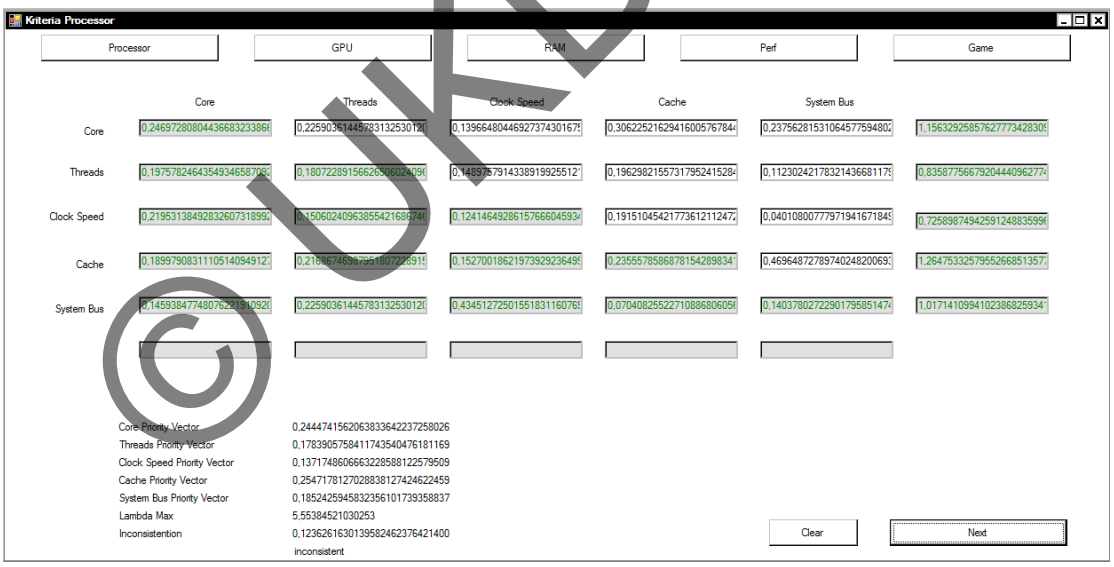
IMPLEMENTASI DAN ANALISIS SISTEM

4.1 Implementasi Sistem

4.1.1 Antarmuka Program

Antarmuka program terdiri dari beberapa form dan form tersebut dapat dibagi menjadi 4 jenis yaitu form untuk menginputkan preferensi kriteria pengguna, form alternatif, form edit dan form add.

Pada tiap form kriteria dan alternatif bagian atas terdapat tombol untuk berpindah ke form lainnya.

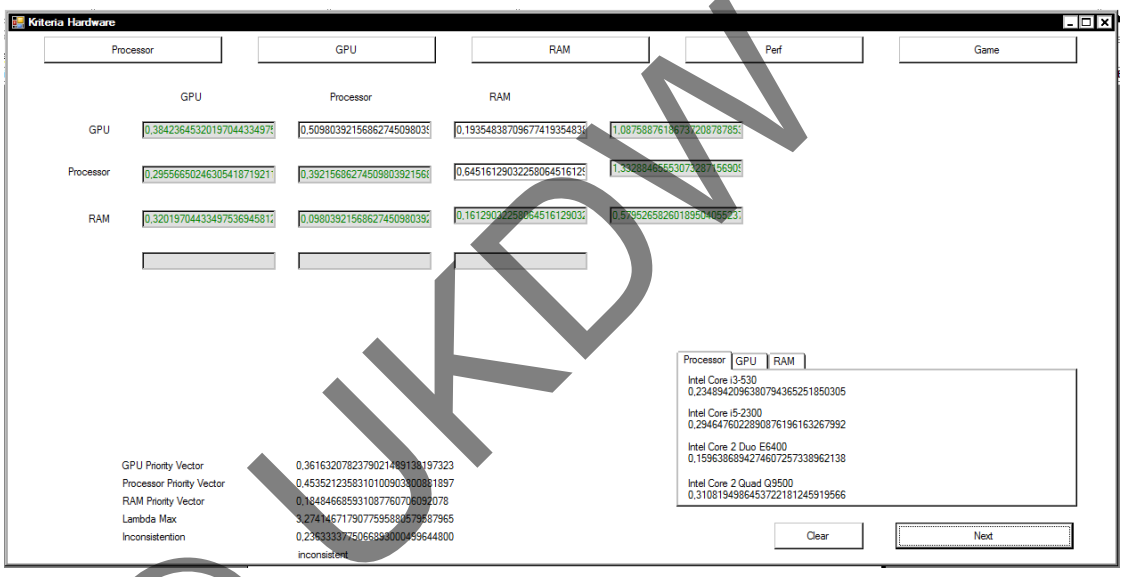


Gambar 4.1 Form Kriteria Processor

Pada form kriteria terdapat beberapa textbox yang berisi perbandingan preferensi kriteria. Pada form kriteria processor dan form kriteria GPU terdapat lebih banyak textbox untuk menginputkan preferensi kriteria karena processor dan

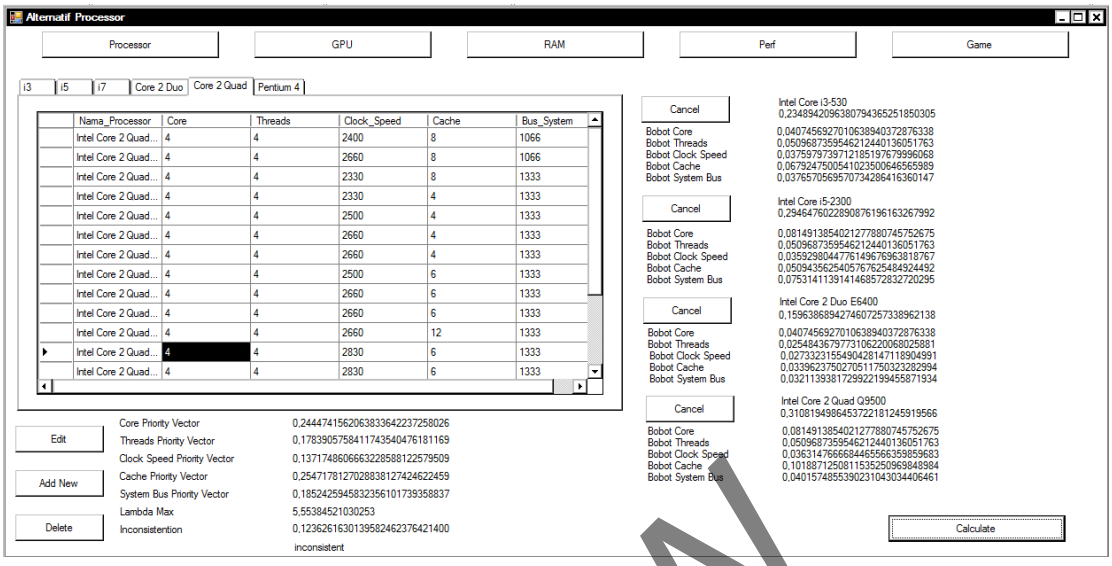
GPU memiliki jumlah kriteria yang lebih banyak yaitu berjumlah 5 dibanding dengan RAM yang berjumlah 2 buah dan hardware yang berjumlah 3 buah.
Textbox yang berada di bagian paling bawah berfungsi untuk membantu normalisasi tabel secara vertikal. Textbox yang berada di bagian paling kanan berfungsi untuk membantu percarian eigen vektor yang nantinya akan digunakan untuk mencari preferensi kriteria.

Pada bagian kiri bawah terdapat label yang berisi vektor prioritas tiap kriteria dan rasio konsistensi dimana bila nilainya lebih dari 0,1 maka inputan preferensi pengguna dinyatakan tidak konsisten.



Gambar 4.2 Form Kriteria Hardware

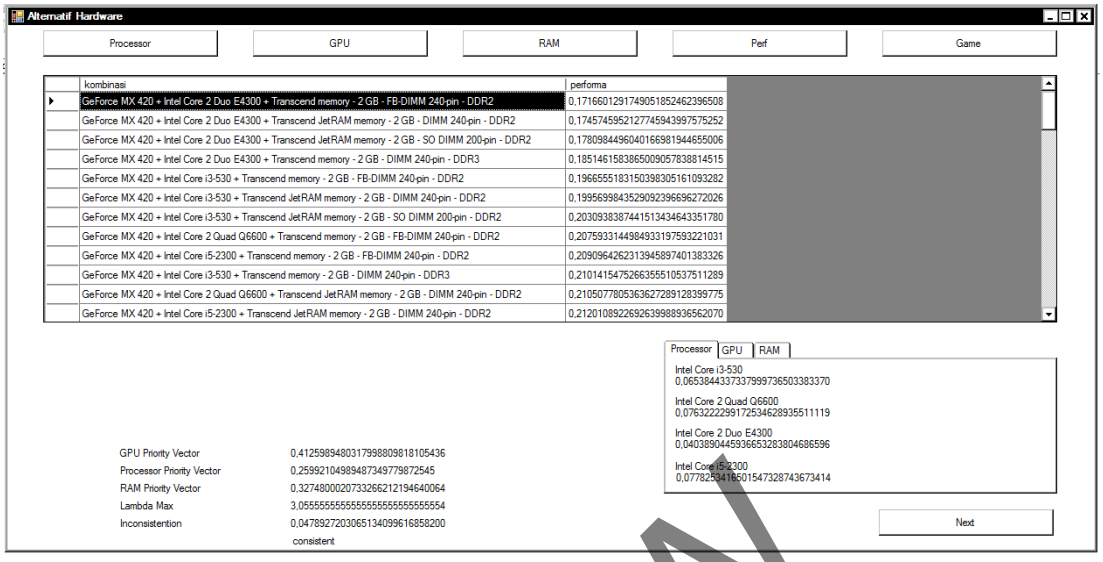
Khusus pada form kriteria hardware terdapat tabcontrol yang berisi vektor prioritas dari tiap processor, RAM dan GPU. Pada bagian kanan bawah terdapat tombol untuk menghapus seluruh inputan preferensi kriteria dan tombol untuk memulai melakukan penghitungan preferensi kriteria bila seluruh textbox telah terisi dan bila penghitungan. Ketika preferensi kriteria telah dilakukan dan tombol ditekan maka form alternatif akan muncul.



Gambar 4.3 Form Alternatif Processor

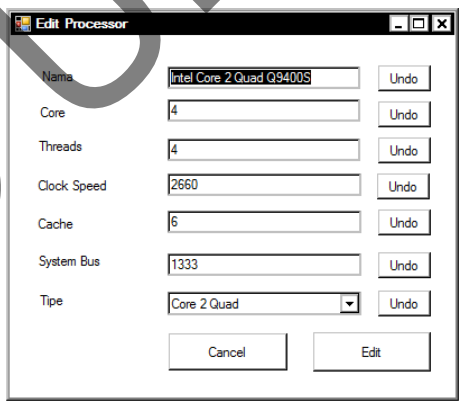
Pada bagian kiri atas form alternatif processor, GPU dan RAM terdapat tabcontrol yang didalamnya terdapat tabel yang berisi daftar processor, GPU dan RAM. Di sebelah kanan dari tabcontrol terdapat beberapa tombol dan label dimana tombol tersebut digunakan untuk memilih processor, GPU atau RAM yang ingin dibandingkan. Bila tombol tersebut ditekan maka perangkat keras yang namanya ditunjuk di tabel akan terpilih dan bila tombol ditekan lagi, perangkat keras tersebut akan dihilangkan dari daftar. Label yang ada dibawah tombol berisi bobot evaluasi dari tiap perangkat keras yang dipilih.

Pada bagian kiri bawah form alternatif processor, GPU dan RAM terdapat tombol edit, add dan delete yang berfungsi memunculkan form edit, add dan melakukan penghapusan data perangkat keras yang ditunjuk pada tabel. Pada bagian kanan bawah terdapat tombol untuk melakukan penghitungan bobot evaluasi dari perangkat keras yang telah dipilih.



Gambar 4.4 Form Alternatif Hardware

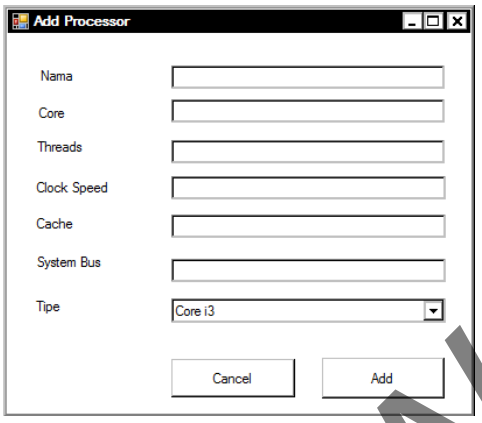
Pada form alternatif hardware, pemilihan alternatif dilakukan oleh sistem berdasarkan processor, GPU dan RAM yang telah dipilih oleh pengguna dan bila tombol yang terdapat disebelah kanan bawah ditekan maka sistem akan menampilkan kombinasi dari tiap perangkat keras dan sistem akan menghitung bobot evaluasi tiap kombinasi perangkat keras tersebut.



Gambar 4.5 Form Edit Processor

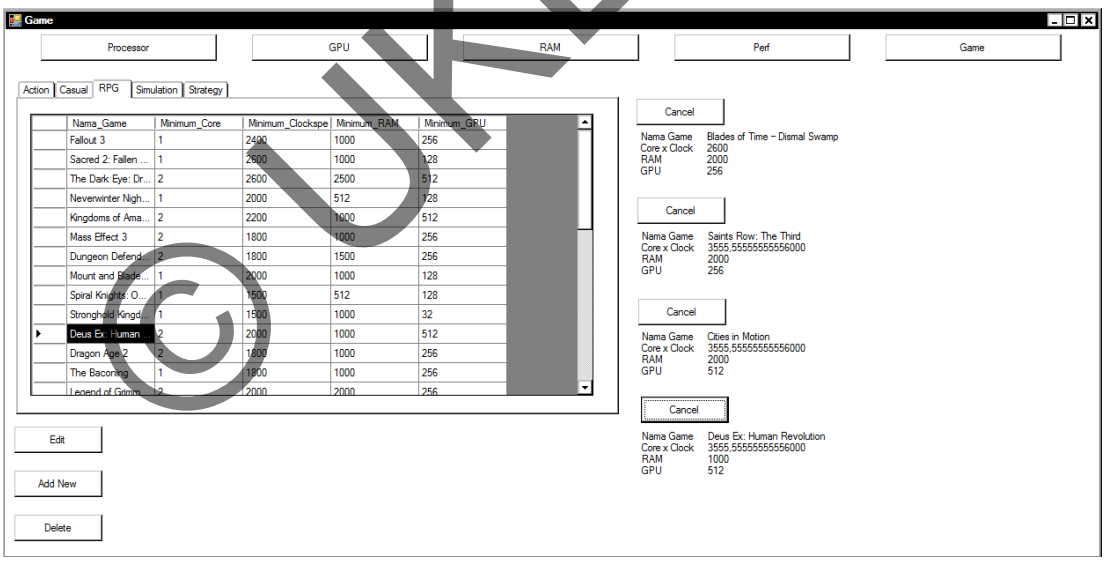
Pada form edit terdapat beberapa tekxtbox yang berisi nama perangkat keras, tipe dan kriteria. Tombol yang berada di sebelah kanan textbox merupakan tombol untuk mengubah tulisan dalam textbox menjadi seperti semula. Tombol

cancel digunakan untuk membatalkan perubahan data dan tombol edit digunakan untuk melakukan perubahan data.



Gambar 4.6 Form Add Processor

Pada form add terdapat beberapa textbox yang berisi nama perangkat keras, tipe dan kriteria. Tombol cancel digunakan untuk membatalkan penambahan data dan tombol edit digunakan untuk melakukan penambahan data.



Gambar 4.7 Form Game

Pada form game terdapat tabcontrol yang berisi data game dan di bagian bawahnya terdapat tombol untuk memunculkan form add game, form edit game dan tombol untuk melakukan penghapusan data game yang ditunjuk pada tabel.

Pada bagian kanan terdapat tombol untuk menambahkan game menjadi syarat minimum perangkat keras dan bila tombol tersebut ditekan ulang, proses tersebut akan dibatalkan.

4.1.2 Format Masukan

Masukan pada program dapat dilakukan dengan menggunakan keyboard untuk textbox dan dengan mouse untuk tombol, tab control dan combobox.

Pada form kriteria processor, form kriteria GPU, form kriteria RAM dan form kriteria hardware, masukan pengguna berupa preferensi kriteria dari keseluruhan processor, RAM, GPU dan hardware. Inputan preferensi kriteria yang dilakukan pengguna sebanyak (n x (n-1))/2 kali dengan n sebagai jumlah kriteria.

Langkah yang perlu dilakukan selanjutnya adalah menekan tombol next yang terdapat pada bagian kanan bawah form. Saat tombol ditekan sistem akan menghitung dan menghasilkan vektor prioritas dari tiap, lambda maximum dan tingkat inkonsistensi. Apabila inkonsistensi kurang dari 0,1 maka inputan preferensi pengguna dinyatakan tidak konsisten. Pengguna dapat mengisi ulang dengan terlebih dahulu menekan tombol clear. Apabila tombol next ditekan kembali maka form kriteria akan tertutup dan form alternatif akan muncul.

Pada form alternatif processor, RAM dan GPU terdapat tombol yang apabila ditekan akan menjalankan perintah untuk mencari posisi baris kursor dalam tabel berdasarkan tabcontrol yang sedang aktif dan data yang ditunjuk oleh kursor akan digunakan sistem sebagai masukan apabila tombol tersebut ditekan kembali. Tombol edit akan memunculkan form edit yang memungkinkan pengguna untuk mengubah data dalam database dengan mengisikan inputan pada tiap textbox yang tersedia. Dari tiap textbox tersebut akan dijalankan query sql yang berupa alter tabel. Tombol add akan memunculkan form add dimana pengguna dapat menmbahkan data baru dengan mengisikan inputan pada tiap textbox dan sistem akan menjalankan query sql yang berupa insert tabel

berdasarkan inputan pengguna. Tombol delete akan menghapus data dari baris tabel yang ditunjuk dengan kursor.

Pada form game pengguna dapat memilih spesifikasi minimum sistem berdasarkan spesefikasi game dengan menekan tombol add game di sebelah kanan.

Pada form alternatif hardware hanya terdapat sebuah tombol yang berfungsi untuk membuat kombinasi dari tiap processor, GPU dan RAM dan menghitung bobot evaluasi dari tiap kombinasi perangkat keras tersebut.

4.1.3 Bentuk Keluaran

Pada tiap form kriteria, keluaran dari program terdapat pada beberapa textbox yang sama dengan textbox untuk inputan preferensi kriteria pengguna.

Inputan preferensi kriteria akan diproses oleh sistem dengan menjalankan suatu fungsi yang bertujuan agar sistem dapat membaca tanda garis miring sebagai operasi pembagian.

Inti dari fungsi tersebut adalah mengolah input dari pengguna dengan cara memasukan inputan pengguna yang berformat string ke array kemudian mencari posisi tanda garis miring. Angka yang terletak di kiri tanda garis miring akan dibagi dengan angka yang terletak di kanan tanda garis miring. Hasil bagi dari angka tersebut ditampilkan pada textbox untuk melengkapi matriks perbandingan berpasangan.

Keluaran lainnya dari form kriteria adalah vektor prioritas masing-masing kriteria yang mencerminkan persentase tiap prioritas dibandingkan kriteria lainnya, lambda maximum dan rasio konsistensi. Rasio konsistensi merupakan nilai yang mencerminkan seberapa besar inputan preferensi kriteria pengguna tidak konsisten.

Pada form alternatif processor, RAM dan GPU terdapat keluaran berupa bobot evaluasi dari tiap alternatif. Bobot evaluasi mencerminkan seberapa cocok kriteria dari alternatif yang ada terhadap alternatif lainnya.

Pada form alternatif hardware keluaran berupa kombinasi tiap processor, GPU dan RAM beserta bobot evaluasinya yang dilakukan dengan melakukan looping/perulangan untuk tiap processor, GPU dan RAM. Pada tiap perulangan terjadi query insert database untuk menyimpan kombinasi nama dan penjumlahan bobot evaluasi dari kombinasi hardware. Pada akhir proses perulangan data dari kombinasi hardware beserta jumlah bobot evaluasinya diurutkan dan ditampilkan dalam datagrid kemudian seluruh data kombinasi hardware dihapus agar pada proses kombinasi hardware selanjutnya, kombinasi hardware yang sebelumnya telah dilakukan tidak muncul kembali.

4.1.4 Implementasi Metode AHP

Implementasi metode AHP dalam program yang terdapat pada bentuk inputan berupa perbandingan preferensi pengguna mengenai tingkat kepentingan kriteria menggunakan matriks perbandingan berpasangan.

Tabel 4.1 Matriks Perbandingan Berpasangan

	Core	Threads	Clock	Cache	Bus	total
Core	1	**2**	**1/2**	**5**	**7**	
Threads	1/2	1	**1/4**	**1**	**4**	
Clock	2	4	1	**6**	**8**	
Cache	1/5	1	1/6	1	**3**	
Bus	1/7	1/4	1/8	1/3	1	
Total	3,842..	8,25	2,041..	13,333..	23	

Matriks perbandingan berpasangan dinormalkan dengan cara membagi seluruh elemen matriks dengan jumlah total tiap kriteria secara vertikal sehingga menghasilkan matriks dengan nilai yang berbeda.

Tabel 4.2 Normalisasi Matriks

	Core	Threads	Clock	Cache	Bus	total
Core	0,260..	0,242..	0,244..	0,375	0,304..	**1,426..**
Threads	0,130..	0,121..	0,122..	0,075	0,173..	**0,622..**
Clock	0,520..	0,484..	0,489..	0,45	0,347..	**2,292..**
Cache	0,052	0,121..	0,081..	0,075	0,130..	**0,460..**
Bus	0,037..	0,030..	0,061..	0,025	0,043..	**0,197..**
Total	1	1	1	1	1	

Langkah selanjutnya adalah penghitungan vektor prioritas dengan menjumlahkan tiap angka yang terdapat dalam textbox yang telah dinormalkan secara horizontal kemudian bagi dengan jumlah kriteria dan hasilnya diubah menjadi bentuk persentase sehingga dari kasus diatas akan menghasilkan vektor prioritas sebagai berikut.

Tabel 4.3 Menghitung Vektor Prioritas

Nama Vektor Prioritas	**Perhitungan**	**Hasil**
Vektor prioritas core	1,426.. /5	**0,285..**
Vektor prioritas threads	0,622.. /5	**0,124..**
Vektor prioritas clock	2,292.. /5	**0,458..**
Vektor prioritas cache	0,460.. /5	**0,092..**
Vektor prioritas bus	0,197.. /5	**0,039..**

Dalam metode AHP juga terdapat rasio konsistensi yang menunjukan seberapa besar tingkat ketidakkonsistenan inputan preferensi pengguna.Rasio konsistensi dapat dihitung dengan membagi indeks konsistensi dengan random indeks. Indeks konsistensi dapat dihitung dengan terlebih dahulu menghitung

lambda maximum. Lambda maksimum dapat diperoleh dengan menjumlahkan hasil kali dari kedua tabel diatas, kemudian dibagi dengan jumlah kriteria.

Tabel 4.4 Menghitung Lambda Maksimum

Total 1	Total 2	Hasil	Lambda Masimum
1,426..	3,842..	5,478..	
0,622..	8,25	5,131..	
2,292..	2,041..)	4,677..	
0,460..	13,33..)	6,131..	
0,197..	23	4,531	
		25,948..	25,948.. / 5 = 5,189..

Langkah selanjutnya adalah menghitung indeks konsistensi atau CI yang diperoleh dengan mengurangi lambda maksimum dengan jumlah kriteria kemudian dibagi dengan jumlah kriteria dikurangi satu.

$$C.I. = \frac{\lambda \text{ maksimum} - n}{n - 1}$$

Gambar 4.8 Indeks Konsistensi (Teknomo, 1999)

Untuk lambda maksimum bernilai 5,18 dan kriteria berjumlah 5, indeks konsistensi yang dihasilkan adalah 0,047.

Tabel 4.5 Random Indeks (Teknomo, 1999)

n	1	2	3	4	5	6	7	8	9	10
R.I.	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

Random indeks atau RI merupakan sebuah nilai yang digunakan sebagai pembagi indeks konsistensi agar dapat menghasilkan rasio konsistensi. Nilai dari random indeks tergantung dari jumlah kriteria.

$$C.R. = \frac{C.I.}{R.I.}$$

Gambar 4.9 Rasio Konsistensi (Teknomo, 1999)

Pada kasus diatas kriteria berjumlah lima sehingga random indeks bernilai 1,12 dan rasio konsistensi bernilai 0,042 yang diperoleh dengan membagi 0,047 (indeks konsistensi) dengan 1,12 (random indeks). Bila rasio konsistensi kurang dari 0,1 maka inputan preferensi pengguna tidak konsisten.

Langkah selanjutnya yang dilakukan adalah pemilihan alternatif. Seharusnya pada metode AHP pengguna diminta memberi perbandingan bobot dari tiap kriteria yang dimiliki tiap alternatif tetapi karena sistem telah memiliki data dari tiap alternatif yang memungkinkan untuk melakukan perbandingan yang konsisten / memiliki rasio konsistensi nol, maka pengguna tidak perlu melakukan penginputan preferensi lagi, cukup dengan mengubah nilai dari alternatif menjadi bentuk persentase.

Tabel 4. 6 Data Alternatif

Nama	Core	Threads	Clock	Cache	Bus
Core 2 Duo E4300	2	2	1800	2	800
i3-560	2	4	3300	4	1250
i3-2100T	2	4	2500	3	2500
i7-860	4	8	2800	8	1250

Tabel 4. 7 Faktor Bobot

	Core	Threads	Clock	Cache	Bus
E4300	0,2	1/9	18/104	2/17	8/58
i3-560	0,2	2/9	33/104	4/17	25/116
i3-2100T	0,2	2/9	25/104	3/17	25/58
i7-860	0,4	4/9	8/104	9/17	25/116

Bobot evaluasi dapat dihitung dengan mengalikan vektor prioritas dan faktor bobot kemudian dijumlahkan berdasarkan alternatif.

Bobot Evaluasi Core

vektor prioritas = 0,285..

E4300 = 0,2 X 0,285.. = 0,057...

i3-560= 0,2 X 0,285.. = 0,057...

i3-2100T = 0,2 X 0,285.. = 0,057...

i7-860 = 0,4 X 0,285.. = 0,114...

Bobot Evaluasi Threads

vektor prioritas = 0,124..

E4300 = (1/9) X 0,124.. = 0,013...

i3-560= (2/9) X 0,124.. = 0,027...

i3-2100T = (2/9) X 0,124.. = 0,027...

i7-860 = (4/9) X 0,124.. = 0,055...

Bobot Evaluasi Clock

vektor prioritas = 0,458..

E4300 = (18/104) X 0,458.. = 0,079...

i3-560= (33/104) X 0,485.. = 0,145...

i3-2100T = (25/104) X 0,485.. = 0,116...

i7-860 = (28/104) X 0,485.. = 0,130...

Bobot Evaluasi Cache

vektor prioritas = 0,092..

E4300 = (2/17) X 0,092.. = 0,010...

i3-560= (4/17) X 0,092... = 0,021...

i3-2100T = (3/17) X 0,092.. = 0,016...

i7-860 = (8/17) X 0,092.. = 0,043...

Bobot Evaluasi Bus

vektor prioritas = 0,039..

E4300 = (8/58) X 0,039.. = 0,005...

i3-560= (25/116) X 0,039.. = 0,008...

i3-2100T = (25/58) X 0,039.. = 0,016...

i7-860 = (25/116) X 0,039.. = 0,008...

Bobot Evaluasi E4300 =

0,057... + 0,013... + 0,079... + 0,010... + 0,005... = 0,164...

Bobot Evaluasi i3-560 =

0,057... + 0,027... + 0,145... + 0,021... + 0,008... = 0,258...

Bobot Evaluasi i3-2100T =

0,057.. + 0,027.. + 0,116... + 0,016...+ 0,016... = 0,232...

Bobot Evaluasi i7-860 =

0,114... + 0,055... + 0,130... + 0,043... + 0,008... = 0,35...

4.2 Analisis Sistem

4.2.1 Analisis Program

Pada program, proses penghitungan vektor prioritas yang terjadi pada form kriteria dan bobot evaluasi alternatif terjadi secara cepat karena pada dasarnya sistem hanya melakukan operasi aritmatika terhadap inputan pengguna dan data dari database saja. Waktu yang dibutuhkan untuk berpindah dari satu form ke lainnya terbilang cukup singkat meskipun untuk pertama kali membuka suatu form akan terjadi sedikit delay karena program melakukan inisialisasi objek untuk pertama kali dan pada saat pertama kali form alternatif dan game terbuka sistem melakukan query sql untuk menampilkan tabel hardware dan game yang berasal dari database.

Pada halaman alternatif hardware, proses untuk membuat kombinasi perangkat keras terdapat delay karena terjadi proses perulangan untuk

mengkombinasikan processor, GPU, RAM dan query insert database sebanyak 64 kali.

Kelebihan dari program adalah mampu menyelesaikan permasalahan pengambilan keputusan pemilihan kombinasi processor, GPU dan RAM sesuai kebutuhan pengguna karena pengambilan keputusan melibatkan preferensi pengguna terhadap kriteria dari tiap perangkat keras, pengguna juga dapat mengetahui apakah input preferensi yang dilakukan telah konsisten atau tidak. Sistem juga mengijinkan pengguna untuk melakukan penambahan, penghapusan dan perubahan data dari alternatif yang disimpan di database. Sistem yang dibangun menyederhanakan metode untuk menginputkan preferensi dari alternatif yang seharusnya dilakukan secara manual menjadi dilakukan secara otomatis pada saat pemilihan alternatif.

Kekurangan dari program adalah bentuk user interface untuk penginputan preferensi dan langkah-langkah menjalankan program akan membingungkan untuk pengguna dan metode penginputan preferensi yang membutuhkan banyak waktu untuk kriteria yang berjumlah besar. Kekurangan lainnya adalah pengguna tidak dapat menambahkan dan menampilkan tipe processor dan GPU baru dikarenakan oleh tiap tipe hardware ditampilkan dengan datagrid yang berbeda dan tidak memungkinkan hal tersebut, ukuran default dari tabel yang terdapat dalam datagrid cukup kecil sehingga pengguna perlu untuk memperbesar lebar tabel secara manual agar data yang panjang dapat terbaca, jumlah maksimum dari tiap alternatif dari processor, ram dan gpu yang dapat dipilih hanya 4 saja.

4.2.2 Analisis Hasil

Tabel 4.8 Matriks Perbandingan Berpasangan Processor

	Core	Threads	Clockspeed	Cache	System Bus
Core	1	2	4	6	1
Treads	1/2	1	2	3	1/2
Clockspeed	1/4	1/2	1	3/2	1/4
Cache	1/6	1/3	2/3	1	1/6
System Bus	1	2	1/4	6	1
Vektor Prioritas Core = 0,342857 Vektor Prioritas Threads = 0,171428 Vektor Prioritas Clockspeed = 0,08571 Vektor Prioritas Cache = 0,05714 Vektor Prioritas Bus System = 0,342857 Lambda Maximum = 5 Rasio Konsistensi = 0					

Pada saat penghitungan bobot dari tiap kriteria, bila preferensi A dibanding dengan C sama dengan perbandingan preferensi A dibanding dengan B dikali dengan prebandingan preferensi B dibanding dengan C, rasio konsistensi yang dihasilkan adalah nol. Bila lambda maksimum bernilai sama dengan jumlah kriteria, maka rasio konsistensi pasti bernilai nol. Misalnya berdasarkan tabel di atas, core dibanding cache bernilai 6, core dibanding threads bernilai 2, threads dibanding cache bernilai 3.

Bila perbandingan kriteria pada tiap baris atau kolom equivalen dengan perbandingan kriteria pada tiap baris atau kolom lainnya, maka dapat dipastikan bahwa rasio konsistensi bernilai nol. Misalnya berdasarkan tabel diatas, perbandingan kriteria pada tabel pertama adalah 1 : 2 : 4 : 6 : 1 yang mana equivalen dengan perbandingan kriteria pada tabel ke dua yaitu 1/2 : 1 : 2 : 3 : 1/2 dan hal tersebut berlaku untuk tiap baris dan kolom.

Tabel 4.9 Menghitung Vektor Prioritas Dengan Menormalkan Kolom

	Core
Core	1
Treads	½
Clockspeed	¼
Cache	1/6
System Bus	1
Total	2,916
Vektor Prioritas Core = 1 : 2,916 = 0,342857 Vektor Prioritas Threads = 1/2 : 2,916 = 0,171428 Vektor Prioritas Clockspeed = 1/4 : 2,916 = 0,08571 Vektor Prioritas Cache = 1/6 : 2,916 = 0,05714 Vektor Prioritas Bus System = 1: 2,916 = 0,342857	

Untuk perbandingan kriteria yang menghasilkan rasio konsistensi nol, vektor prioritas dapat dihitung dengan menormalkan salah satu kolom saja. Misalnya pada tabel diatas, vektor prioritas dapat diperoleh dengan menormalkan kolom core saja.

Tabel 4.10 Perubahan Vektor Prioritas

	Core	Threads	Clockspeed	Cache	System Bus
Core	1	2	4	6 →7	1
Treads	1/2	1	2	3	1/2
Clockspeed	1/4	1/2	1	3/2	1/4
Cache	1/6	1/3	2/3	1	1/6
System Bus	1	2	4	6	1
Vektor Prioritas Core : 0,342857 → 0,350525 Vektor Prioritas Threads : 0,171428 → 0,16798 Vektor Prioritas Clockspeed : 0,08571 → 0,08492 Vektor Prioritas Cache : 0,05714 → 0,05497 Vektor Prioritas Bus System : 0,342857 → 0,33971					

Lambda Maximum : 5,0035 Rasio Konsistensi : 0,00078

Pada metode AHP, perbandingan suatu kriteria dari tiap kriteria mempengaruhi seluruh vektor prioritas yang dimiliki seluruh kriteria. Pada tabel diatas, nilai perbandingan core terhadap cache diubah dari 6 menjadi 7 dan vektor prioritas yang dimiliki tiap kriteria juga ikut berubah.

Tabel 4.11 Detail Perubahan Vektor Prioritas

Nama Kriteria	Vektor Prioritas Awal	Vektor Prioritas Akhir	Vektor Prioritas Akhir / Awal
Core	0,342857	0,350525	1,022371
Threads	0,171428	0,16798	0,97993
Clockspeed	0,08571	0,08492	0,99098
Cache	0,05714	0,05497	0,96202
Bus System	0,34285	0,33971	0,9908

Dari tabel diatas peningkatan preferensi core terhadap cache menyebabkan vektor prioritas core saja yang mengalami penambahan sedangkan vektor prioritas yang dimiliki oleh kriteria lain mengalami penurunan.

Tabel 4.12 Matriks Perbandingan Berpasangan RAM

	Memory Size	Access Speed
Memory Size	1	3
Access Speed	1/3	1
Vektor Prioritas Memory Size : 0,75 Vektor Prioritas Acces Speed : 0,25 Lambda Maximum : 2 Rasio Konsistensi : 0		

Untuk kriteria yang berjumlah dua, rasio konsistensi yang dihasilkan selalu bernilai nol.

Tabel 4.13 Data Alternatif Processor

Alternatif	Core	Threads	Clock Speed	Cache	System Bus
Core 2 Duo E7400	2	2	2800	3	1066
i3 560	2	4	3330	4	1250
i3 2120	2	4	3330	3	2500
i7 880	4	8	3060	8	1250
Total	10	18	12520	18	6066

Penghitungan bobot evaluasi dari alternatif dilakukan berdasarkan data yang berasal dari database dimana rasio konsistensinya dari perbandingan alternatif pasti bernilai nol. Dalam kasus tersebut faktor bobot dapat diperoleh dengan menormalkan kriteria dari tiap alternatif.

Tabel 4.14 Faktor Bobot Processor

Alternatif	Faktor Bobot Core	Faktor Bobot Threads	Faktor Bobot Clock Speed	Faktor Bobot Cache	Faktor Bobot System Bus
Core 2 Duo E7400	2/10	2/18	2800/12520	3/18	1066/6066
i3 560	2/10	4/18	3330/12520	4/18	1250/6066
i3 2120	2/10	4/18	3300/12520	3/18	2500/6066
i7 880	4/10	8/18	3060/12520	8/18	1250/6066

Bobot evaluasi diperoleh dari mengalikan faktor bobot dengan vektor prioritas. Dalam kasus di bawah, vektor prioritas dari tiap kriteria memiliki nilai yang sama. Seluruh faktor bobot dan bobot evaluasi yang dimiliki oleh alternatif dapat mencerminkan data yang terdapat pada tabel alternatif, misalkan berdasarkan tabel di bawah, processor i7 880 memiliki nilai core dua kali lebih

besar dibanding processor lainnya, maka faktor bobot dan bobot evaluasi processor i7 880 juga lebih besar dua kali dibanding processor lainnya. Hal tersebut juga berlaku untuk tiap kriteria dan alternatif lainnya.

Pada tabel dibawah processor Core 2 Duo E7400 memiliki bobot evaluasi yang paling rendah karena memiliki core, threads, clockspeed, cache dan system bus yang paling rendah. Processor i7 880 memiliki bobot evaluasi yang paling tinggi karena core, threads dan cachenya jauh lebih besar dari yang dimiliki alternatif lain. Processor i3 560 memiliki cache yang 4/3 kali lebih besar dari i3 2120 tetapi system bus yang dimiliki i3 2120 dua kali lebih besar, karena bobot dari tiap kriteria adalah sama, bobot evaluasi i3 2120 menjadi sedikit lebih besar dari pada i3 560.

Tabel 4.15 Penghitungan Bobot Evaluasi Dengan Vektor Prioritas Yang Sama

	Vektor Prioritas	Alternatif	Bobot Evaluasi
Core	0,2	Core 2 Duo E7400	0,04
		i3 560	0,04
		i3 2120	0,04
		i7 880	0,08
Threads	0,2	Core 2 Duo E7400	0,02222
		i3 560	0,04444
		i3 2120	0,04444
		i7 880	0,08888
Clockspeed	0,2	Core 2 Duo E7400	0,04483
		i3 560	0,05332
		i3 2120	0,05284
		i7 880	0,04899
Cache	0,2	Core 2 Duo E7400	0,03333
		i3 560	0,04444
		i3 2120	0,03333
		i7 880	0,08888

System Bus	0,2	Core 2 Duo E7400	0,0351
		i3 560	0,04121
		i3 2120	0,08242
		i7 880	0,04121

Bobot Evaluasi Core 2 Duo E7400 = 0,04 + 0,02222 + 0,04483 + 0,03333 + 0,0351 = 0,175538

Bobot Evaluasi i3 560 = 0,04 + 0,04444 + 0,05332 + 0,04444 + 0,04121 = 0,22342

Bobot Evaluasi i3 2120 = 0,04 +0,04444 + 0,05284 + 0,03333 + 0,08242 = 0,25304

Bobot Evaluasi i7 880 = 0,08 + 0,04448 + 0,04899 + 0,08888 + 0,04121 = 0,034799

Tabel 4.16 Pengaruh Baris Dan Kolom Dalam Vektor Prioritas

	Core	Threads	Clockspeed	Cache	System Bus
Core	1	5	5	5	5
Treads	1/5	1	1	1	1
Clockspeed	1/5	1	1	1	1
Cache	1/5	1	1	1	1
System Bus	1/5	1	1	1	1

Vektor Prioritas Core : 0,5555

Vektor Prioritas Threads : 0,1111

Vektor Prioritas Clockspeed : 0,1111

Vektor Prioritas Cache : 0,1111

Vektor Prioritas Bus System : 0,1111

Pada perbandingan bobot kriteria, jika nilai preferensi suatu kriteria secara horizontal semakin besar maka vektor prioritas kriteria tersebut semakin besar, jika nilai preferensi suatu kriteria secara vertikal semakin kecil, maka vektor prioritas kriteria tersebut semakin besar.

Pada tabel dibawah, vektor prioritas dari bus system ditingkatkan secara drastis, hal tersebut menyebabkan processor yang memiliki bus system yang

tinggi menjadi lebih dominan. Processor i3 2120 memiliki bobot evaluasi yang paling tinggi mengalahkan processor lainnya, bahkan i7 880 yang memiliki bobot core, thread dan cache yang lebih besar. Hal tersebut terjadi karena inputan preferensi pengguna mencerminkan bahwa pengguna ingin mencari processor dengan system bus yang tinggi dan processor i3 2120 memiliki bus system dua kali lebih besar dari processor lainnya.

Tabel 4.17 Penghitungan Bobot Evaluasi Dengan Vektor Prioritas System Bus yang Besar

	Vektor Prioritas	Alternatif	Bobot Evaluasi
Core	0,111	Core 2 Duo E7400	0,0222
		i3 560	0,0222
		i3 2120	0,0222
		i7 880	0,0444
Threads	0,111	Core 2 Duo E7400	0,01234
		i3 560	0,02469
		i3 2120	0,02469
		i7 880	0,04938
Clockspeed	0,111	Core 2 Duo E7400	0,0249
		i3 560	0,02962
		i3 2120	0,02936
		i7 880	0,02722
Cache	0,111	Core 2 Duo E7400	0,01851
		i3 560	0,02469
		i3 2120	0,01851
		i7 880	0,04938
System Bus	0,555	Core 2 Duo E7400	0,09729
		i3 560	0,01148
		i3 2120	0,22896
		i7 880	0,11448

Bobot Evaluasi E7400 = 0,0222 + 0,01234 + 0,0249 + 0,01851 + 0,09729 = 0,1756

Bobot Evaluasi i3 560 = 0,0222 + 0,02469 + 0,02962 + 0,02469 + 0,01148 = 0,2157

Bobot Evaluasi i3 2120 = 0,0222 + 0,02469 + 0,02936 + 0,01851 + 0,22896 = 0,32375

Bobot Evaluasi i7 880 = 0,0444 + 0,04938 + 0,02722 + 0,04938 + 0,11448 = 0,2849

Tabel 4.18 Hasil Percobaan Dengan Berbagai Preferensi Pengguna

Core/ Threads	Core/ Clock speed	Core/ Cache	Core/ System Bus	Threads/ Clock Speed	Threads/ Cache	Threads/ System Bus	Clock Speed/ Cache	Clock Speed/ System Bus	Cache/ system Bus	Aternatif	Bobot Evaluasi
1	1	1	1	1	1	1	1	1	1	i7 880	0,3479
										i3 2120	0,253
										i3 560	0,2234
										E7400	0,1755
1	1	1	1/5	1	1	1/5	1	1/5	1/5	i3 2120	0,3237
										i7 880	0,2849
										i3 560	0,2157
										E7400	0,1756
2	4	6	1	2	3	1/2	3/2	1/4	1/6	i7 880	0,3303
										i3 2120	0,2801
										i3 560	0,2128
										E7400	0,176
1	2	1/5	3	1	1/7	4	1/4	3	7	i7 880	0,4025
										i3 560	0,2236
										i3 2120	0,2024
										E7400	0,1716
1	4	1/3	5	3	1	7	1/7	2	7	i7 880	0,4107
										i3 560	0,2198
										i3 2120	0,206
										E7400	0,1631
4	2	7	7	1	2	3	4	5	1	i7 880	0,3623
										i3 2120	0,2804
										i3 560	0,22105
										E7400	0,1878
1	1/2	1/3	1	1/3	1/3	1/2	1/4	1/3	4	i7 880	0,3621
										i3 2120	0,2376
										i3 560	0,2239
										E7400	0,1763
8	2	2	7	1/7	1/2	1	3	3	1	i7 880	0,3346
										i3 2120	0,2336
										i3 560	0,2243
										E7400	0,1958

Dari tabel diatas i7 880 memiliki kemungkinan untuk menjadi peringkat pertama yang paling besar karena memiliki kriteria yang lebih baik dibanding processor lainnya. Processor i3 2120 dan i3 560 memiliki kriteria yang hampir sama, hanya berbeda di cache dan system bus. Bila pengguna menginginkan cache yang besar dan tidak terlalu menghiraukan system bus maka processor i3 560 akan sedikit lebih unggul dari i3 2120. Bila pengguna menginginkan system bus yang besar dan tidak terlalu menghiraukan cache maka processor i3 2120 akan sedikit lebih unggul dari i3 560. Pada kasus di atas processor Core 2 Duo selalu berada pada posisi paling akhir karena semua kriterianya lebih rendah daripada processor lainnya.

LAMPIRAN

‘Form1’

```
Imports System.Data.SqlClient

Public Class Form1
    Dim nextcounter As Integer
    Public xclockspeed(3) As Decimal

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        proc12.Text = ""
        proc13.Text = ""
        proc14.Text = ""
        proc15.Text = ""
        proc23.Text = ""
        proc24.Text = ""
        proc25.Text = ""
        proc34.Text = ""
        proc35.Text = ""
        proc45.Text = ""
        proc61.Text = ""
        proc62.Text = ""
        proc63.Text = ""
        proc64.Text = ""
        proc65.Text = ""
        proc21.Text = ""
        proc31.Text = ""
        proc41.Text = ""
        proc51.Text = ""
        proc32.Text = ""
        proc42.Text = ""
        proc52.Text = ""
        proc43.Text = ""
        proc53.Text = ""
        proc54.Text = ""
        proc16.Text = ""
        proc26.Text = ""
        proc36.Text = ""
        proc46.Text = ""
        proc56.Text = ""

        proc12.ReadOnly = False
        proc13.ReadOnly = False
        proc14.ReadOnly = False
        proc15.ReadOnly = False
        proc23.ReadOnly = False
        proc24.ReadOnly = False
        proc25.ReadOnly = False
        proc34.ReadOnly = False
        proc35.ReadOnly = False
        proc45.ReadOnly = False
        proc11.Text = "1"
        proc22.Text = "1"
        proc33.Text = "1"
        proc44.Text = "1"
        proc55.Text = "1"
        nextcounter = 0
        vektorcore.Text = ""
```

```
        vektorthreads.Text = ""
        vektorclockspeed.Text = ""
        vektorcache.Text = ""
        vektorsystembus.Text = ""
        proclamdamax.Text = ""
        konsistensi.Text = ""
        prockonsistensi.Text = ""

    End Sub

    Function hitung(ByVal q)
        Dim a(50) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(25) As Char
        Dim pem As String = ""
        Dim pen As String = ""
        Dim penyebut(25) As Char
        Dim hasil As Decimal

        Try
            panjang = q.Length
            For x = 0 To (panjang - 1)
                a(x) = q(x)
                If a(x) = "/" Then
                    b = x
                End If
            Next
            If b = 0 Then
                Return q
            Else
                For x = 0 To (b - 1)
                    pembilang(x) = q(x)
                    pem = pem + pembilang(x)
                Next
                For x = (b + 1) To (panjang - 1)
                    penyebut(x) = q(x)
                    pen = pen + penyebut(x)
                Next
                hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
                q = hasil
                Return q
            End If

        Catch exc As Exception
            Console.ReadLine()
        Finally
            Console.WriteLine()
        End Try

    End Function

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        'txtbox dibagi dengan txtbox plg bawah = d normal kan
        'bobot dr kriteria = djmlhin ksamping/kriteria
        'lambdamax= jumlah dr semua txtbox plg bawah x plg samping
        'CI= ((lambdamax-n)/n-1)  CR=CI/RI  n=5  RI=1,12
        'CI= ((lambdamax-5)/4)/1,12
        If nextcounter = 3 Then
            Try
                Form1x.vektorcore.Text = vektorcore.Text
```

```
                Form1x.vektorthreads.Text = vektorthreads.Text
                Form1x.vektorclockspeed.Text = vektorclockspeed.Text
                Form1x.vektorcache.Text = vektorcache.Text
                Form1x.vektorsystembus.Text = vektorsystembus.Text
                Form1x.proclamdamax.Text = proclamdamax.Text
                Form1x.prockonsistensi.Text = prockonsistensi.Text
                Form1x.konsistensi.Text = konsistensi.Text
                Me.Hide()
                Form1x.Show()

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 2 Then
            Try
                proc11.Text = Convert.ToDecimal(proc11.Text) /
Convert.ToDecimal(proc61.Text)
                proc21.Text = Convert.ToDecimal(proc21.Text) /
Convert.ToDecimal(proc61.Text)
                proc31.Text = Convert.ToDecimal(proc31.Text) /
Convert.ToDecimal(proc61.Text)
                proc41.Text = Convert.ToDecimal(proc41.Text) /
Convert.ToDecimal(proc61.Text)
                proc51.Text = Convert.ToDecimal(proc51.Text) /
Convert.ToDecimal(proc61.Text)
                proc12.Text = Convert.ToDecimal(proc12.Text) /
Convert.ToDecimal(proc62.Text)
                proc22.Text = Convert.ToDecimal(proc22.Text) /
Convert.ToDecimal(proc62.Text)
                proc32.Text = Convert.ToDecimal(proc32.Text) /
Convert.ToDecimal(proc62.Text)
                proc42.Text = Convert.ToDecimal(proc42.Text) /
Convert.ToDecimal(proc62.Text)
                proc52.Text = Convert.ToDecimal(proc52.Text) /
Convert.ToDecimal(proc62.Text)
                proc13.Text = Convert.ToDecimal(proc13.Text) /
Convert.ToDecimal(proc63.Text)
                proc23.Text = Convert.ToDecimal(proc23.Text) /
Convert.ToDecimal(proc63.Text)
                proc33.Text = Convert.ToDecimal(proc33.Text) /
Convert.ToDecimal(proc63.Text)
                proc43.Text = Convert.ToDecimal(proc43.Text) /
Convert.ToDecimal(proc63.Text)
                proc53.Text = Convert.ToDecimal(proc53.Text) /
Convert.ToDecimal(proc63.Text)
                proc14.Text = Convert.ToDecimal(proc14.Text) /
Convert.ToDecimal(proc64.Text)
                proc24.Text = Convert.ToDecimal(proc24.Text) /
Convert.ToDecimal(proc64.Text)
                proc34.Text = Convert.ToDecimal(proc34.Text) /
Convert.ToDecimal(proc64.Text)
                proc44.Text = Convert.ToDecimal(proc44.Text) /
Convert.ToDecimal(proc64.Text)
                proc54.Text = Convert.ToDecimal(proc54.Text) /
Convert.ToDecimal(proc64.Text)
                proc15.Text = Convert.ToDecimal(proc15.Text) /
Convert.ToDecimal(proc65.Text)
                proc25.Text = Convert.ToDecimal(proc25.Text) /
Convert.ToDecimal(proc65.Text)
```

```
                proc35.Text = Convert.ToDecimal(proc35.Text) /
Convert.ToDecimal(proc65.Text)
                proc45.Text = Convert.ToDecimal(proc45.Text) /
Convert.ToDecimal(proc65.Text)
                proc55.Text = Convert.ToDecimal(proc55.Text) /
Convert.ToDecimal(proc65.Text)

                vektorcore.Text = (Convert.ToDecimal(proc11.Text) +
Convert.ToDecimal(proc12.Text) + Convert.ToDecimal(proc13.Text) +
Convert.ToDecimal(proc14.Text) + Convert.ToDecimal(proc15.Text)) * (1 / 5)
                vektorthreads.Text = (Convert.ToDecimal(proc21.Text) +
Convert.ToDecimal(proc22.Text) + Convert.ToDecimal(proc23.Text) +
Convert.ToDecimal(proc24.Text) + Convert.ToDecimal(proc25.Text)) * (1 / 5)
                vektorclockspeed.Text = (Convert.ToDecimal(proc31.Text) +
Convert.ToDecimal(proc32.Text) + Convert.ToDecimal(proc33.Text) +
Convert.ToDecimal(proc34.Text) + Convert.ToDecimal(proc35.Text)) * (1 / 5)
                vektorcache.Text = (Convert.ToDecimal(proc41.Text) +
Convert.ToDecimal(proc42.Text) + Convert.ToDecimal(proc43.Text) +
Convert.ToDecimal(proc44.Text) + Convert.ToDecimal(proc45.Text)) * (1 / 5)
                vektorsystembus.Text = (Convert.ToDecimal(proc51.Text) +
Convert.ToDecimal(proc52.Text) + Convert.ToDecimal(proc53.Text) +
Convert.ToDecimal(proc54.Text) + Convert.ToDecimal(proc55.Text)) * (1 / 5)

                Dim vektorpembagi As Decimal = Convert.ToDecimal(vektorcore.Text) +
Convert.ToDecimal(vektorthreads.Text) + Convert.ToDecimal(vektorclockspeed.Text) +
Convert.ToDecimal(vektorcache.Text) + Convert.ToDecimal(vektorsystembus.Text)
                vektorcore.Text = (Convert.ToDecimal(vektorcore.Text) /
vektorpembagi).ToString
                vektorthreads.Text = (Convert.ToDecimal(vektorthreads.Text) /
vektorpembagi).ToString
                vektorclockspeed.Text = (Convert.ToDecimal(vektorclockspeed.Text) /
vektorpembagi).ToString
                vektorcache.Text = (Convert.ToDecimal(vektorcache.Text) /
vektorpembagi).ToString
                vektorsystembus.Text = (Convert.ToDecimal(vektorsystembus.Text) /
vektorpembagi).ToString
                vektorcore.Show()
                vektorthreads.Show()
                vektorclockspeed.Show()
                vektorcache.Show()
                vektorsystembus.Show()

                proc16.Text = Convert.ToDecimal(proc11.Text) +
Convert.ToDecimal(proc12.Text) + Convert.ToDecimal(proc13.Text) +
Convert.ToDecimal(proc14.Text) + Convert.ToDecimal(proc15.Text)
                proc26.Text = Convert.ToDecimal(proc21.Text) +
Convert.ToDecimal(proc22.Text) + Convert.ToDecimal(proc23.Text) +
Convert.ToDecimal(proc24.Text) + Convert.ToDecimal(proc25.Text)
                proc36.Text = Convert.ToDecimal(proc31.Text) +
Convert.ToDecimal(proc32.Text) + Convert.ToDecimal(proc33.Text) +
Convert.ToDecimal(proc34.Text) + Convert.ToDecimal(proc35.Text)
                proc46.Text = Convert.ToDecimal(proc41.Text) +
Convert.ToDecimal(proc42.Text) + Convert.ToDecimal(proc43.Text) +
Convert.ToDecimal(proc44.Text) + Convert.ToDecimal(proc45.Text)
                proc56.Text = Convert.ToDecimal(proc51.Text) +
Convert.ToDecimal(proc52.Text) + Convert.ToDecimal(proc53.Text) +
Convert.ToDecimal(proc54.Text) + Convert.ToDecimal(proc55.Text)

                proclamdamax.Text = (((Convert.ToDecimal(proc61.Text) *
Convert.ToDecimal(proc16.Text) / 5) + (Convert.ToDecimal(proc62.Text) *
Convert.ToDecimal(proc26.Text) / 5) + (Convert.ToDecimal(proc63.Text) *
Convert.ToDecimal(proc36.Text) / 5) + (Convert.ToDecimal(proc64.Text) *
```

```
Convert.ToDecimal(proc46.Text) / 5) + (Convert.ToDecimal(proc65.Text) *
Convert.ToDecimal(proc56.Text) / 5)).ToString)
                prockonsistensi.Text = (((((Convert.ToDecimal(proclamdamax.Text) - 5)
/ 4 / 112) * 100).ToString))
                proclamdamax.Text = +(proclamdamax.Text)
                prockonsistensi.Text = ((prockonsistensi.Text).ToString)

                If ((prockonsistensi.Text) > (1 / 10)) Then
                    konsistensi.Text = " inconsistent"
                Else
                    konsistensi.Text = " consistent"
                End If
                proclamdamax.Show()
                prockonsistensi.Show()
                konsistensi.Show()
                proc61.Text = ""
                proc62.Text = ""
                proc63.Text = ""
                proc64.Text = ""
                proc65.Text = ""
                nextcounter = 3

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 0 Then
            'semua txtbox diisi
            Try
                proc12.Text = hitung(proc12.Text)
                proc13.Text = hitung(proc13.Text)
                proc14.Text = hitung(proc14.Text)
                proc15.Text = hitung(proc15.Text)
                proc23.Text = hitung(proc23.Text)
                proc24.Text = hitung(proc24.Text)
                proc25.Text = hitung(proc25.Text)
                proc34.Text = hitung(proc34.Text)
                proc35.Text = hitung(proc35.Text)
                proc45.Text = hitung(proc45.Text)
                proc21.Text = 1 / Convert.ToDecimal(proc12.Text)
                proc31.Text = 1 / Convert.ToDecimal(proc13.Text)
                proc41.Text = 1 / Convert.ToDecimal(proc14.Text)
                proc51.Text = 1 / Convert.ToDecimal(proc15.Text)
                proc32.Text = 1 / Convert.ToDecimal(proc23.Text)
                proc42.Text = 1 / Convert.ToDecimal(proc24.Text)
                proc52.Text = 1 / Convert.ToDecimal(proc25.Text)
                proc43.Text = 1 / Convert.ToDecimal(proc34.Text)
                proc53.Text = 1 / Convert.ToDecimal(proc35.Text)
                proc54.Text = 1 / Convert.ToDecimal(proc45.Text)
                'bag bawah diisi
                proc61.Text = Convert.ToDecimal(proc11.Text) +
Convert.ToDecimal(proc21.Text) + Convert.ToDecimal(proc31.Text) +
Convert.ToDecimal(proc41.Text) + Convert.ToDecimal(proc51.Text)
                proc62.Text = Convert.ToDecimal(proc12.Text) +
Convert.ToDecimal(proc22.Text) + Convert.ToDecimal(proc32.Text) +
Convert.ToDecimal(proc42.Text) + Convert.ToDecimal(proc52.Text)
                proc63.Text = Convert.ToDecimal(proc13.Text) +
Convert.ToDecimal(proc23.Text) + Convert.ToDecimal(proc33.Text) +
Convert.ToDecimal(proc43.Text) + Convert.ToDecimal(proc53.Text)
```

```
                proc64.Text = Convert.ToDecimal(proc14.Text) +
Convert.ToDecimal(proc24.Text) + Convert.ToDecimal(proc34.Text) +
Convert.ToDecimal(proc44.Text) + Convert.ToDecimal(proc54.Text)
                proc65.Text = Convert.ToDecimal(proc15.Text) +
Convert.ToDecimal(proc25.Text) + Convert.ToDecimal(proc35.Text) +
Convert.ToDecimal(proc45.Text) + Convert.ToDecimal(proc55.Text)
                proc12.ReadOnly = True
                proc13.ReadOnly = True
                proc14.ReadOnly = True
                proc15.ReadOnly = True
                proc23.ReadOnly = True
                proc24.ReadOnly = True
                proc25.ReadOnly = True
                proc34.ReadOnly = True
                proc35.ReadOnly = True
                proc45.ReadOnly = True
                'vektor preferensi=kriteria dikalikan scr horizontal, di akar n,
dibagi dengan jmlh vektor lain

                'vektorcore.Text = (Convert.ToDecimal(proc11.Text) *
Convert.ToDecimal(proc12.Text) * Convert.ToDecimal(proc13.Text) *
Convert.ToDecimal(proc14.Text) * Convert.ToDecimal(proc15.Text)) ^ (1 / 5)
                'vektorthreads.Text = (Convert.ToDecimal(proc21.Text) *
Convert.ToDecimal(proc22.Text) * Convert.ToDecimal(proc23.Text) *
Convert.ToDecimal(proc24.Text) * Convert.ToDecimal(proc25.Text)) ^ (1 / 5)
                'vektorclockspeed.Text = (Convert.ToDecimal(proc31.Text) *
Convert.ToDecimal(proc32.Text) * Convert.ToDecimal(proc33.Text) *
Convert.ToDecimal(proc34.Text) * Convert.ToDecimal(proc35.Text)) ^ (1 / 5)
                'vektorcache.Text = (Convert.ToDecimal(proc41.Text) *
Convert.ToDecimal(proc42.Text) * Convert.ToDecimal(proc43.Text) *
Convert.ToDecimal(proc44.Text) * Convert.ToDecimal(proc45.Text)) ^ (1 / 5)
                'vektorsystembus.Text = (Convert.ToDecimal(proc51.Text) *
Convert.ToDecimal(proc52.Text) * Convert.ToDecimal(proc53.Text) *
Convert.ToDecimal(proc54.Text) * Convert.ToDecimal(proc55.Text)) ^ (1 / 5)

                nextcounter = 2

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        End If
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
```

```
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

    End Sub
End Class
```

‘Form1x’

```
Imports System.Data.SqlClient

Public Class Form1x

    Dim xnamaproc(3) As String
    Dim xcore(3) As Decimal
    Dim xthreads(3) As Decimal
    Public xclockspeed(3) As Decimal
    Dim xcache(3) As Decimal
    Dim xsystembus(3) As Decimal
    Dim performaproc(3) As Decimal

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim ds2 As DataSet = New DataSet()
    Dim ds3 As DataSet = New DataSet()
    Dim ds4 As DataSet = New DataSet()
    Dim ds5 As DataSet = New DataSet()
    Dim ds6 As DataSet = New DataSet()
    Dim ds7 As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    'counter
    Dim counter1 As Integer = 0
    Dim counter2 As Integer = 0
    Dim counter3 As Integer = 0
    Dim counter4 As Integer = 0

    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Core i3'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds, "Processor")
        dt = ds.Tables("Processor")
```

```
        Me.DataGridView1.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Core i5'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds2, "Processor")
        dt = ds2.Tables("Processor")
        Me.DataGridView2.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Core i7'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds3, "Processor")
        dt = ds3.Tables("Processor")
        Me.DataGridView3.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Core 2 Duo'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds4, "Processor")
        dt = ds4.Tables("Processor")
        Me.DataGridView4.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Core 2 Quad'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds5, "Processor")
        dt = ds5.Tables("Processor")
        Me.DataGridView5.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Pentium 4'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds6, "Processor")
        dt = ds6.Tables("Processor")
        Me.DataGridView6.DataSource = dt

        Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System from
Processor where Seri_Processor = 'Pentium D'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds7, "Processor")
        dt = ds7.Tables("Processor")
        Me.DataGridView7.DataSource = dt

        proc1.Text = ""
        proc2.Text = ""
        proc3.Text = ""
        proc4.Text = ""

    End Sub


    Private Sub Choose_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addproc1.Click
        Dim rows As Integer
        performaproc1.Text = ""
```

```
        If counter1 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView1.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView2.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView3.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView4.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView5.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
```

```
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView6.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamaproc(0) = DataGridView7.Rows(rows).Cells(0).Value
                xcore(0) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xthreads(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xclockspeed(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xcache(0) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xsystembus(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                proc1.Text = xnamaproc(0)
            End If
            counter1 = 1
            addproc1.Text = "Cancel"
        ElseIf counter1 = 1 Then
            xnamaproc(0) = ""
            xcore(0) = 0
            xthreads(0) = 0
            xclockspeed(0) = 0
            xcache(0) = 0
            xsystembus(0) = 0
            proc1.Text = ""
            performaproc1.Text = ""
            xcore0.Text = ""
            xthreads0.Text = ""
            xclockspeed0.Text = ""
            xcache0.Text = ""
            xsystembus0.Text = ""
            addproc1.Text = "Add Proc 1"
            counter1 = 0
        End If

        proc1.Show()
    End Sub

    Private Sub addgpu2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addproc2.Click
        Dim rows As Integer
        performaproc2.Text = ""
        'aaa
        If counter2 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView1.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
```

```
                xcache(1) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView2.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView3.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView4.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView5.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView6.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
```

```
                xsystembus(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamaproc(1) = DataGridView7.Rows(rows).Cells(0).Value
                xcore(1) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xthreads(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xclockspeed(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xcache(1) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xsystembus(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                proc2.Text = xnamaproc(1)
            End If
            counter2 = 1
            addproc2.Text = "Cancel"
        ElseIf counter2 = 1 Then
            xnamaproc(1) = ""
            xcore(1) = 0
            xthreads(1) = 0
            xclockspeed(1) = 0
            xcache(1) = 0
            xsystembus(1) = 0
            proc2.Text = ""
            performaproc2.Text = ""
            xcore1.Text = ""
            xthreads1.Text = ""
            xclockspeed1.Text = ""
            xcache1.Text = ""
            xsystembus1.Text = ""
            addproc2.Text = "Add Proc 2"
            counter2 = 0
        End If
        proc2.Show()
    End Sub

    Private Sub addgpu3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addproc3.Click
        Dim rows As Integer
        performaproc3.Text = ""

        If counter3 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView1.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView2.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
```

```
                xclockspeed(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView3.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView4.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView5.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView6.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xcache(2) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamaproc(2) = DataGridView7.Rows(rows).Cells(0).Value
                xcore(2) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xthreads(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xclockspeed(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
```

```
                xcache(2) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xsystembus(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                proc3.Text = xnamaproc(2)
            End If
            counter3 = 1
            addproc3.Text = "Cancel"
        ElseIf counter3 = 1 Then
            xnamaproc(2) = ""
            xcore(2) = 0
            xthreads(2) = 0
            xclockspeed(2) = 0
            xcache(2) = 0
            xsystembus(2) = 0
            proc3.Text = ""
            performaproc3.Text = ""
            xcore2.Text = ""
            xthreads2.Text = ""
            xclockspeed2.Text = ""
            xcache2.Text = ""
            xsystembus2.Text = ""
            addproc3.Text = "Add Proc 3"
            counter3 = 0
        End If
        proc3.Show()
    End Sub

    Private Sub addgpu4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addproc4.Click
        Dim rows As Integer
        performaproc4.Text = ""

        If counter4 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView1.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView2.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView3.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
```

```
                xthreads(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView4.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView5.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView6.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamaproc(3) = DataGridView7.Rows(rows).Cells(0).Value
                xcore(3) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xthreads(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xclockspeed(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xcache(3) = Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xsystembus(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                proc4.Text = xnamaproc(3)
            End If
            counter4 = 1
            addproc4.Text = "Cancel"
        ElseIf counter4 = 1 Then
            xnamaproc(3) = ""
            xcore(3) = 0
```

```
            xthreads(3) = 0
            xclockspeed(3) = 0
            xcache(3) = 0
            xsystembus(3) = 0
            proc4.Text = ""
            performaproc4.Text = ""
            xcore3.Text = ""
            xthreads3.Text = ""
            xclockspeed3.Text = ""
            xcache3.Text = ""
            xsystembus3.Text = ""
            addproc4.Text = "Add Proc 4"
            counter4 = 0
        End If

        proc4.Show()
    End Sub

    Private Sub Calculate_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Calculate.Click
        'corexclock, amdahl
        ''f=1/n
        'tiap core speedup 1/((1-f)+(f/n))
        '1/((1-1/n)+(1/n/n))
        '1/((n/n-1/n)+(1/(n^2)))
        '1/(((n-1)/n)+(1/(n^2)))
        '1/((((n^2)-n)/n^2)+(1/(n^2))))
        '1/(((n^2)-n+1)/(n^2))
        '(n^2)/((n^2)-n+1)
        'total speedup n core ((n^2)/((n^2)-n+1))^n
        Form4x.c(1) = ((((xcore(0)) * (xcore(0))) / (((xcore(0)) * (xcore(0))) -
(xcore(0)) + 1)) ^ (xcore(0))) * (xclockspeed(0))
        Form4x.c(2) = ((((xcore(1)) * (xcore(1))) / (((xcore(1)) * (xcore(1))) -
(xcore(1)) + 1)) ^ (xcore(1))) * (xclockspeed(1))
        Form4x.c(3) = ((((xcore(2)) * (xcore(2))) / (((xcore(2)) * (xcore(2))) -
(xcore(2)) + 1)) ^ (xcore(2))) * (xclockspeed(2))
        Form4x.c(4) = ((((xcore(3)) * (xcore(3))) / (((xcore(3)) * (xcore(3))) -
(xcore(3)) + 1)) ^ (xcore(3))) * (xclockspeed(3))

        'karena barang yg dibandingkan dr db = konsisten, nilai kriteria1 barang=
nilai kriteria1/ jumlah nilai1 semua pembanding x vektor preferensi1
        'nilai barang= nilai1 + nilai2 + ... + nilain

        xcore0.Text = Convert.ToDecimal(vektorcore.Text) * (xcore(0) / (xcore(0) +
xcore(1) + xcore(2) + xcore(3)))
        xcore1.Text = Convert.ToDecimal(vektorcore.Text) * (xcore(1) / (xcore(0) +
xcore(1) + xcore(2) + xcore(3)))
        xcore2.Text = Convert.ToDecimal(vektorcore.Text) * (xcore(2) / (xcore(0) +
xcore(1) + xcore(2) + xcore(3)))
        xcore3.Text = Convert.ToDecimal(vektorcore.Text) * (xcore(3) / (xcore(0) +
xcore(1) + xcore(2) + xcore(3)))
        xthreads0.Text = Convert.ToDecimal(vektorthreads.Text) * (xthreads(0) /
(xthreads(0) + xthreads(1) + xthreads(2) + xthreads(3)))
        xthreads1.Text = Convert.ToDecimal(vektorthreads.Text) * (xthreads(1) /
(xthreads(0) + xthreads(1) + xthreads(2) + xthreads(3)))
        xthreads2.Text = Convert.ToDecimal(vektorthreads.Text) * (xthreads(2) /
(xthreads(0) + xthreads(1) + xthreads(2) + xthreads(3)))
        xthreads3.Text = Convert.ToDecimal(vektorthreads.Text) * (xthreads(3) /
(xthreads(0) + xthreads(1) + xthreads(2) + xthreads(3)))
        xclockspeed0.Text = Convert.ToDecimal(vektorclockspeed.Text) * (xclockspeed(0)
/ (xclockspeed(0) + xclockspeed(1) + xclockspeed(2) + xclockspeed(3)))
```

```
        xclockspeed1.Text = Convert.ToDecimal(vektorclockspeed.Text) * (xclockspeed(1)
/ (xclockspeed(0) + xclockspeed(1) + xclockspeed(2) + xclockspeed(3)))
        xclockspeed2.Text = Convert.ToDecimal(vektorclockspeed.Text) * (xclockspeed(2)
/ (xclockspeed(0) + xclockspeed(1) + xclockspeed(2) + xclockspeed(3)))
        xclockspeed3.Text = Convert.ToDecimal(vektorclockspeed.Text) * (xclockspeed(3)
/ (xclockspeed(0) + xclockspeed(1) + xclockspeed(2) + xclockspeed(3)))
        xcache0.Text = Convert.ToDecimal(vektorcache.Text) * (xcache(0) / (xcache(0) +
xcache(1) + xcache(2) + xcache(3)))
        xcache1.Text = Convert.ToDecimal(vektorcache.Text) * (xcache(1) / (xcache(0) +
xcache(1) + xcache(2) + xcache(3)))
        xcache2.Text = Convert.ToDecimal(vektorcache.Text) * (xcache(2) / (xcache(0) +
xcache(1) + xcache(2) + xcache(3)))
        xcache3.Text = Convert.ToDecimal(vektorcache.Text) * (xcache(3) / (xcache(0) +
xcache(1) + xcache(2) + xcache(3)))
        xsystembus0.Text = Convert.ToDecimal(vektorsystembus.Text) * (xsystembus(0) /
(xsystembus(0) + xsystembus(1) + xsystembus(2) + xsystembus(3)))
        xsystembus1.Text = Convert.ToDecimal(vektorsystembus.Text) * (xsystembus(1) /
(xsystembus(0) + xsystembus(1) + xsystembus(2) + xsystembus(3)))
        xsystembus2.Text = Convert.ToDecimal(vektorsystembus.Text) * (xsystembus(2) /
(xsystembus(0) + xsystembus(1) + xsystembus(2) + xsystembus(3)))
        xsystembus3.Text = Convert.ToDecimal(vektorsystembus.Text) * (xsystembus(3) /
(xsystembus(0) + xsystembus(1) + xsystembus(2) + xsystembus(3)))

        performaproc(0) = Convert.ToDecimal(xcore0.Text) +
Convert.ToDecimal(xthreads0.Text) + Convert.ToDecimal(xclockspeed0.Text) +
Convert.ToDecimal(xcache0.Text) + Convert.ToDecimal(xsystembus0.Text)
        performaproc(1) = Convert.ToDecimal(xcore1.Text) +
Convert.ToDecimal(xthreads1.Text) + Convert.ToDecimal(xclockspeed1.Text) +
Convert.ToDecimal(xcache1.Text) + Convert.ToDecimal(xsystembus1.Text)
        performaproc(2) = Convert.ToDecimal(xcore2.Text) +
Convert.ToDecimal(xthreads2.Text) + Convert.ToDecimal(xclockspeed2.Text) +
Convert.ToDecimal(xcache2.Text) + Convert.ToDecimal(xsystembus2.Text)
        performaproc(3) = Convert.ToDecimal(xcore3.Text) +
Convert.ToDecimal(xthreads3.Text) + Convert.ToDecimal(xclockspeed3.Text) +
Convert.ToDecimal(xcache3.Text) + Convert.ToDecimal(xsystembus3.Text)

        performaproc1.Text = performaproc(0)
        performaproc2.Text = performaproc(1)
        performaproc3.Text = performaproc(2)
        performaproc4.Text = performaproc(3)
        performaproc1.Show()
        performaproc2.Show()
        performaproc3.Show()
        performaproc4.Show()
        xcore0.Show()
        xcore1.Show()
        xcore2.Show()
        xcore3.Show()
        xthreads0.Show()
        xthreads1.Show()
        xthreads2.Show()
        xthreads3.Show()
        xclockspeed0.Show()
        xclockspeed1.Show()
        xclockspeed2.Show()
        xclockspeed3.Show()
        xcache0.Show()
        xcache1.Show()
        xcache2.Show()
        xcache3.Show()
        xsystembus0.Show()
        xsystembus1.Show()
```

```
        xsystembus2.Show()
        xsystembus3.Show()

        Form4.pproc1.Text = performaproc1.Text
        Form4.pproc2.Text = performaproc2.Text
        Form4.pproc3.Text = performaproc3.Text
        Form4.pproc4.Text = performaproc4.Text
        Form4.nproc1.Text = proc1.Text
        Form4.nproc2.Text = proc2.Text
        Form4.nproc3.Text = proc3.Text
        Form4.nproc4.Text = proc4.Text

        Form4x.pproc1.Text = performaproc1.Text
        Form4x.pproc2.Text = performaproc2.Text
        Form4x.pproc3.Text = performaproc3.Text
        Form4x.pproc4.Text = performaproc4.Text
        Form4x.nproc1.Text = proc1.Text
        Form4x.nproc2.Text = proc2.Text
        Form4x.nproc3.Text = proc3.Text
        Form4x.nproc4.Text = proc4.Text

    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Form5x.Show()
        Me.Close()
    End Sub


    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Dim rows As Integer
        Dim namadelete As String

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            namadelete = DataGridView1.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
```

```
            Me.adapt.Fill(ds, "Processor")
            dt = ds.Tables("Processor")
            con.Close()

            ds.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Core i3'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "Processor")
            dt = ds.Tables("Processor")
            Me.DataGridView1.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            namadelete = DataGridView2.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds2, "Processor")
            dt = ds2.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds2.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Core i5'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds2, "Processor")
            dt = ds2.Tables("Processor")
            Me.DataGridView2.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            namadelete = DataGridView3.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds3, "Processor")
            dt = ds3.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds3.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Core i7'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds3, "Processor")
            dt = ds3.Tables("Processor")
            Me.DataGridView3.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 3 Then
```

```
            rows = DataGridView4.CurrentCellAddress.Y
            namadelete = DataGridView4.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds4, "Processor")
            dt = ds4.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds4.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Core 2 Duo'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds4, "Processor")
            dt = ds4.Tables("Processor")
            Me.DataGridView4.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 4 Then
            rows = DataGridView5.CurrentCellAddress.Y
            namadelete = DataGridView5.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds5, "Processor")
            dt = ds5.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds5.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Core 2 Quad'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds5, "Processor")
            dt = ds5.Tables("Processor")
            Me.DataGridView5.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 5 Then
            rows = DataGridView6.CurrentCellAddress.Y
            namadelete = DataGridView6.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds6, "Processor")
            dt = ds6.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()
```

```
            ds6.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Pentium 4'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds6, "Processor")
            dt = ds6.Tables("Processor")
            Me.DataGridView6.DataSource = dt


        ElseIf TabControl2.SelectedIndex = 6 Then
            rows = DataGridView7.CurrentCellAddress.Y
            namadelete = DataGridView7.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Processor where Nama_Processor like '" + namadelete
+ "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds7, "Processor")
            dt = ds7.Tables("Processor")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds7.Clear()
            Me.sql = "SELECT Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System
from Processor where Seri_Processor = 'Pentium D'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds7, "Processor")
            dt = ds7.Tables("Processor")
            Me.DataGridView7.DataSource = dt
        End If

    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        Dim rows As Integer

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            Form5.namaedit = DataGridView1.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView1.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView1.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView1.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView1.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView1.Rows(rows).Cells(5).Value
            Form5.tipe = 0
        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            Form5.namaedit = DataGridView2.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView2.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView2.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView2.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView2.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView2.Rows(rows).Cells(5).Value
            Form5.tipe = 1
        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            Form5.namaedit = DataGridView3.Rows(rows).Cells(0).Value
```

```
            Form5.coreedit = DataGridView3.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView3.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView3.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView3.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView3.Rows(rows).Cells(5).Value
            Form5.tipe = 2
        ElseIf TabControl2.SelectedIndex = 3 Then
            rows = DataGridView4.CurrentCellAddress.Y
            Form5.namaedit = DataGridView4.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView4.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView4.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView4.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView4.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView4.Rows(rows).Cells(5).Value
            Form5.tipe = 3
        ElseIf TabControl2.SelectedIndex = 4 Then
            rows = DataGridView5.CurrentCellAddress.Y
            Form5.namaedit = DataGridView5.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView5.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView5.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView5.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView5.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView5.Rows(rows).Cells(5).Value
            Form5.tipe = 4
        ElseIf TabControl2.SelectedIndex = 5 Then
            rows = DataGridView6.CurrentCellAddress.Y
            Form5.namaedit = DataGridView6.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView6.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView6.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView6.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView6.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView6.Rows(rows).Cells(5).Value
            Form5.tipe = 5

        ElseIf TabControl2.SelectedIndex = 6 Then
            rows = DataGridView7.CurrentCellAddress.Y
            Form5.namaedit = DataGridView7.Rows(rows).Cells(0).Value
            Form5.coreedit = DataGridView7.Rows(rows).Cells(1).Value
            Form5.threadsedit = DataGridView7.Rows(rows).Cells(2).Value
            Form5.clockspeededit = DataGridView7.Rows(rows).Cells(3).Value
            Form5.cacheedit = DataGridView7.Rows(rows).Cells(4).Value
            Form5.systembusedit = DataGridView7.Rows(rows).Cells(5).Value
            Form5.tipe = 6
        End If

        Form5.Show()
        Me.Close()
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        Form1.Show()
        Me.Hide()
    End Sub

    Private Sub Button8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button8.Click
        Me.Hide()
        Form8.Show()
    End Sub

End Class
```

‘Form2’

```
Imports System.Data.SqlClient

Public Class Form2
    Dim nextcounter As Integer
    Dim xnamagpu(3) As String
    Dim xcoreclock(3) As Decimal
    Dim xmemoryclock(3) As Decimal
    Dim xmemoryinterface(3) As Decimal
    Dim xmemorytransferrate(3) As Decimal
    Public xmaximummemory(3) As Decimal
    Dim performagpu(3) As Decimal

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim ds2 As DataSet = New DataSet()
    Dim ds3 As DataSet = New DataSet()
    Dim ds4 As DataSet = New DataSet()
    Dim ds5 As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub cleargpu_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles cleargpu.Click
        gpu12.Text = ""
        gpu13.Text = ""
        gpu14.Text = ""
        gpu15.Text = ""
        gpu23.Text = ""
        gpu24.Text = ""
        gpu25.Text = ""
        gpu34.Text = ""
        gpu35.Text = ""
        gpu45.Text = ""
        gpu61.Text = ""
        gpu62.Text = ""
        gpu63.Text = ""
        gpu64.Text = ""
        gpu65.Text = ""
        gpu21.Text = ""
        gpu31.Text = ""
        gpu41.Text = ""
        gpu51.Text = ""
        gpu32.Text = ""
        gpu42.Text = ""
        gpu52.Text = ""
        gpu43.Text = ""
        gpu53.Text = ""
        gpu54.Text = ""
        gpu16.Text = ""
        gpu26.Text = ""
        gpu36.Text = ""
        gpu46.Text = ""
        gpu56.Text = ""
```

```
        gpu12.ReadOnly = False
        gpu13.ReadOnly = False
        gpu14.ReadOnly = False
        gpu15.ReadOnly = False
        gpu23.ReadOnly = False
        gpu24.ReadOnly = False
        gpu25.ReadOnly = False
        gpu34.ReadOnly = False
        gpu35.ReadOnly = False
        gpu45.ReadOnly = False
        gpu11.Text = "1"
        gpu22.Text = "1"
        gpu33.Text = "1"
        gpu44.Text = "1"
        gpu55.Text = "1"
        nextcounter = 0
        vektorcoreclock.Text = ""
        vektormemoryinterface.Text = ""
        vektormemorytransferrate.Text = ""
        vektormemoryclock.Text = ""
        vektormaximummemory.Text = ""
        gpulamdamax.Text = ""
        konsistensi.Text = ""
        gpukonsistensi.Text = ""
    End Sub

    Function hitung(ByVal q)
        Dim a(50) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(25) As Char
        Dim pem As String = ""
        Dim pen As String = ""
        Dim penyebut(25) As Char
        Dim hasil As Decimal

        panjang = q.Length
        For x = 0 To (panjang - 1)
            a(x) = q(x)
            If a(x) = "/" Then
                b = x
            End If
        Next
        If b = 0 Then
            Return q
        Else
            For x = 0 To (b - 1)
                pembilang(x) = q(x)
                pem = pem + pembilang(x)
            Next
            For x = (b + 1) To (panjang - 1)
                penyebut(x) = q(x)
                pen = pen + penyebut(x)
            Next
            hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
            q = hasil
            Return q
        End If
    End Function
```

```
    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        If nextcounter = 3 Then
            Try
                Form2x.vektorcoreclock.Text = vektorcoreclock.Text
                Form2x.vektormemoryclock.Text = vektormemoryclock.Text
                Form2x.vektormemoryinterface.Text = vektormemoryinterface.Text
                Form2x.vektormemorytransferrate.Text = vektormemorytransferrate.Text
                Form2x.vektormaximummemory.Text = vektormaximummemory.Text
                Form2x.gpulamdamax.Text = gpulamdamax.Text
                Form2x.gpukonsistensi.Text = gpukonsistensi.Text
                Form2x.konsistensi.Text = konsistensi.Text
                Me.Hide()
                Form2x.Show()

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 2 Then
            Try
                gpu11.Text = Convert.ToDecimal(gpu11.Text) /
Convert.ToDecimal(gpu61.Text)
                gpu21.Text = Convert.ToDecimal(gpu21.Text) /
Convert.ToDecimal(gpu61.Text)
                gpu31.Text = Convert.ToDecimal(gpu31.Text) /
Convert.ToDecimal(gpu61.Text)
                gpu41.Text = Convert.ToDecimal(gpu41.Text) /
Convert.ToDecimal(gpu61.Text)
                gpu51.Text = Convert.ToDecimal(gpu51.Text) /
Convert.ToDecimal(gpu61.Text)
                gpu12.Text = Convert.ToDecimal(gpu12.Text) /
Convert.ToDecimal(gpu62.Text)
                gpu22.Text = Convert.ToDecimal(gpu22.Text) /
Convert.ToDecimal(gpu62.Text)
                gpu32.Text = Convert.ToDecimal(gpu32.Text) /
Convert.ToDecimal(gpu62.Text)
                gpu42.Text = Convert.ToDecimal(gpu42.Text) /
Convert.ToDecimal(gpu62.Text)
                gpu52.Text = Convert.ToDecimal(gpu52.Text) /
Convert.ToDecimal(gpu62.Text)
                gpu13.Text = Convert.ToDecimal(gpu13.Text) /
Convert.ToDecimal(gpu63.Text)
                gpu23.Text = Convert.ToDecimal(gpu23.Text) /
Convert.ToDecimal(gpu63.Text)
                gpu33.Text = Convert.ToDecimal(gpu33.Text) /
Convert.ToDecimal(gpu63.Text)
                gpu43.Text = Convert.ToDecimal(gpu43.Text) /
Convert.ToDecimal(gpu63.Text)
                gpu53.Text = Convert.ToDecimal(gpu53.Text) /
Convert.ToDecimal(gpu63.Text)
                gpu14.Text = Convert.ToDecimal(gpu14.Text) /
Convert.ToDecimal(gpu64.Text)
                gpu24.Text = Convert.ToDecimal(gpu24.Text) /
Convert.ToDecimal(gpu64.Text)
                gpu34.Text = Convert.ToDecimal(gpu34.Text) /
Convert.ToDecimal(gpu64.Text)
                gpu44.Text = Convert.ToDecimal(gpu44.Text) /
Convert.ToDecimal(gpu64.Text)
```

```
                gpu54.Text = Convert.ToDecimal(gpu54.Text) /
Convert.ToDecimal(gpu64.Text)
                gpu15.Text = Convert.ToDecimal(gpu15.Text) /
Convert.ToDecimal(gpu65.Text)
                gpu25.Text = Convert.ToDecimal(gpu25.Text) /
Convert.ToDecimal(gpu65.Text)
                gpu35.Text = Convert.ToDecimal(gpu35.Text) /
Convert.ToDecimal(gpu65.Text)
                gpu45.Text = Convert.ToDecimal(gpu45.Text) /
Convert.ToDecimal(gpu65.Text)
                gpu55.Text = Convert.ToDecimal(gpu55.Text) /
Convert.ToDecimal(gpu65.Text)

                vektorcoreclock.Text = (Convert.ToDecimal(gpu11.Text) +
Convert.ToDecimal(gpu12.Text) + Convert.ToDecimal(gpu13.Text) +
Convert.ToDecimal(gpu14.Text) + Convert.ToDecimal(gpu15.Text)) * (1 / 5)
                vektormemoryclock.Text = (Convert.ToDecimal(gpu21.Text) +
Convert.ToDecimal(gpu22.Text) + Convert.ToDecimal(gpu23.Text) +
Convert.ToDecimal(gpu24.Text) + Convert.ToDecimal(gpu25.Text)) * (1 / 5)
                vektormemoryinterface.Text = (Convert.ToDecimal(gpu31.Text) +
Convert.ToDecimal(gpu32.Text) + Convert.ToDecimal(gpu33.Text) +
Convert.ToDecimal(gpu34.Text) + Convert.ToDecimal(gpu35.Text)) * (1 / 5)
                vektormemorytransferrate.Text = (Convert.ToDecimal(gpu41.Text) +
Convert.ToDecimal(gpu42.Text) + Convert.ToDecimal(gpu43.Text) +
Convert.ToDecimal(gpu44.Text) + Convert.ToDecimal(gpu45.Text)) * (1 / 5)
                vektormaximummemory.Text = (Convert.ToDecimal(gpu51.Text) +
Convert.ToDecimal(gpu52.Text) + Convert.ToDecimal(gpu53.Text) +
Convert.ToDecimal(gpu54.Text) + Convert.ToDecimal(gpu55.Text)) * (1 / 5)

                Dim vektorpembagi As Decimal = Convert.ToDecimal(vektorcoreclock.Text)
+ Convert.ToDecimal(vektormemoryclock.Text) +
Convert.ToDecimal(vektormemoryinterface.Text) +
Convert.ToDecimal(vektormemorytransferrate.Text) +
Convert.ToDecimal(vektormaximummemory.Text)
                vektorcoreclock.Text = (Convert.ToDecimal(vektorcoreclock.Text) /
vektorpembagi).ToString
                vektormemoryclock.Text = (Convert.ToDecimal(vektormemoryclock.Text) /
vektorpembagi).ToString
                vektormemoryinterface.Text =
(Convert.ToDecimal(vektormemoryinterface.Text) / vektorpembagi).ToString
                vektormemorytransferrate.Text =
(Convert.ToDecimal(vektormemorytransferrate.Text) / vektorpembagi).ToString
                vektormaximummemory.Text =
(Convert.ToDecimal(vektormaximummemory.Text) / vektorpembagi).ToString
                vektorcoreclock.Show()
                vektormemoryclock.Show()
                vektormemoryinterface.Show()
                vektormemorytransferrate.Show()
                vektormaximummemory.Show()

                gpu16.Text = Convert.ToDecimal(gpu11.Text) +
Convert.ToDecimal(gpu12.Text) + Convert.ToDecimal(gpu13.Text) +
Convert.ToDecimal(gpu14.Text) + Convert.ToDecimal(gpu15.Text)
                gpu26.Text = Convert.ToDecimal(gpu21.Text) +
Convert.ToDecimal(gpu22.Text) + Convert.ToDecimal(gpu23.Text) +
Convert.ToDecimal(gpu24.Text) + Convert.ToDecimal(gpu25.Text)
                gpu36.Text = Convert.ToDecimal(gpu31.Text) +
Convert.ToDecimal(gpu32.Text) + Convert.ToDecimal(gpu33.Text) +
Convert.ToDecimal(gpu34.Text) + Convert.ToDecimal(gpu35.Text)
                gpu46.Text = Convert.ToDecimal(gpu41.Text) +
Convert.ToDecimal(gpu42.Text) + Convert.ToDecimal(gpu43.Text) +
Convert.ToDecimal(gpu44.Text) + Convert.ToDecimal(gpu45.Text)
```

```
                gpu56.Text = Convert.ToDecimal(gpu51.Text) +
Convert.ToDecimal(gpu52.Text) + Convert.ToDecimal(gpu53.Text) +
Convert.ToDecimal(gpu54.Text) + Convert.ToDecimal(gpu55.Text)
                gpulamdamax.Text = (((Convert.ToDecimal(gpu61.Text) *
Convert.ToDecimal(gpu16.Text) / 5) + (Convert.ToDecimal(gpu62.Text) *
Convert.ToDecimal(gpu26.Text) / 5) + (Convert.ToDecimal(gpu63.Text) *
Convert.ToDecimal(gpu36.Text) / 5) + (Convert.ToDecimal(gpu64.Text) *
Convert.ToDecimal(gpu46.Text) / 5) + (Convert.ToDecimal(gpu65.Text) *
Convert.ToDecimal(gpu56.Text) / 5)).ToString)
                gpukonsistensi.Text = (((((Convert.ToDecimal(gpulamdamax.Text) - 5) /
4) / 112) * 100).ToString)
                gpulamdamax.Text = +(gpulamdamax.Text)
                gpukonsistensi.Text = ((gpukonsistensi.Text).ToString)

                If ((gpukonsistensi.Text) > (1 / 10)) Then
                    konsistensi.Text = " inconsistent"
                Else
                    konsistensi.Text = " consistent"
                End If
                gpulamdamax.Show()
                gpukonsistensi.Show()
                konsistensi.Show()
                gpu61.Text = ""
                gpu62.Text = ""
                gpu63.Text = ""
                gpu64.Text = ""
                gpu65.Text = ""
                nextcounter = 3

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 0 Then
            Try
                gpu12.Text = hitung(gpu12.Text)
                gpu13.Text = hitung(gpu13.Text)
                gpu14.Text = hitung(gpu14.Text)
                gpu15.Text = hitung(gpu15.Text)
                gpu23.Text = hitung(gpu23.Text)
                gpu24.Text = hitung(gpu24.Text)
                gpu25.Text = hitung(gpu25.Text)
                gpu34.Text = hitung(gpu34.Text)
                gpu35.Text = hitung(gpu35.Text)
                gpu45.Text = hitung(gpu45.Text)
                gpu21.Text = 1 / Convert.ToDecimal(gpu12.Text)
                gpu31.Text = 1 / Convert.ToDecimal(gpu13.Text)
                gpu41.Text = 1 / Convert.ToDecimal(gpu14.Text)
                gpu51.Text = 1 / Convert.ToDecimal(gpu15.Text)
                gpu32.Text = 1 / Convert.ToDecimal(gpu23.Text)
                gpu42.Text = 1 / Convert.ToDecimal(gpu24.Text)
                gpu52.Text = 1 / Convert.ToDecimal(gpu25.Text)
                gpu43.Text = 1 / Convert.ToDecimal(gpu34.Text)
                gpu53.Text = 1 / Convert.ToDecimal(gpu35.Text)
                gpu54.Text = 1 / Convert.ToDecimal(gpu45.Text)
                gpu61.Text = Convert.ToDecimal(gpu11.Text) +
Convert.ToDecimal(gpu21.Text) + Convert.ToDecimal(gpu31.Text) +
Convert.ToDecimal(gpu41.Text) + Convert.ToDecimal(gpu51.Text)
```

```
                gpu62.Text = Convert.ToDecimal(gpu12.Text) +
Convert.ToDecimal(gpu22.Text) + Convert.ToDecimal(gpu32.Text) +
Convert.ToDecimal(gpu42.Text) + Convert.ToDecimal(gpu52.Text)
                gpu63.Text = Convert.ToDecimal(gpu13.Text) +
Convert.ToDecimal(gpu23.Text) + Convert.ToDecimal(gpu33.Text) +
Convert.ToDecimal(gpu43.Text) + Convert.ToDecimal(gpu53.Text)
                gpu64.Text = Convert.ToDecimal(gpu14.Text) +
Convert.ToDecimal(gpu24.Text) + Convert.ToDecimal(gpu34.Text) +
Convert.ToDecimal(gpu44.Text) + Convert.ToDecimal(gpu54.Text)
                gpu65.Text = Convert.ToDecimal(gpu15.Text) +
Convert.ToDecimal(gpu25.Text) + Convert.ToDecimal(gpu35.Text) +
Convert.ToDecimal(gpu45.Text) + Convert.ToDecimal(gpu55.Text)
                gpu12.ReadOnly = True
                gpu13.ReadOnly = True
                gpu14.ReadOnly = True
                gpu15.ReadOnly = True
                gpu23.ReadOnly = True
                gpu24.ReadOnly = True
                gpu25.ReadOnly = True
                gpu34.ReadOnly = True
                gpu35.ReadOnly = True
                gpu45.ReadOnly = True

                'vektorcoreclock.Text = (Convert.ToDecimal(gpu11.Text) *
Convert.ToDecimal(gpu12.Text) * Convert.ToDecimal(gpu13.Text) *
Convert.ToDecimal(gpu14.Text) * Convert.ToDecimal(gpu15.Text)) ^ (1 / 5)
                'vektormemoryclock.Text = (Convert.ToDecimal(gpu21.Text) *
Convert.ToDecimal(gpu22.Text) * Convert.ToDecimal(gpu23.Text) *
Convert.ToDecimal(gpu24.Text) * Convert.ToDecimal(gpu25.Text)) ^ (1 / 5)
                'vektormemoryinterface.Text = (Convert.ToDecimal(gpu31.Text) *
Convert.ToDecimal(gpu32.Text) * Convert.ToDecimal(gpu33.Text) *
Convert.ToDecimal(gpu34.Text) * Convert.ToDecimal(gpu35.Text)) ^ (1 / 5)
                'vektormemorytransferrate.Text = (Convert.ToDecimal(gpu41.Text) *
Convert.ToDecimal(gpu42.Text) * Convert.ToDecimal(gpu43.Text) *
Convert.ToDecimal(gpu44.Text) * Convert.ToDecimal(gpu45.Text)) ^ (1 / 5)
                'vektormaximummemory.Text = (Convert.ToDecimal(gpu51.Text) *
Convert.ToDecimal(gpu52.Text) * Convert.ToDecimal(gpu53.Text) *
Convert.ToDecimal(gpu54.Text) * Convert.ToDecimal(gpu55.Text)) ^ (1 / 5)

                nextcounter = 2

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        End If

    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub
```

```
    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub Label11_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Label11.Click

    End Sub

    Private Sub Form2_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

    End Sub
End Class
```

‘Form2x’

```
Imports System.Data.SqlClient

Public Class Form2x
    Dim nextcounter As Integer
    Dim xnamagpu(3) As String
    Dim xcoreclock(3) As Decimal
    Dim xmemoryclock(3) As Decimal
    Dim xmemoryinterface(3) As Decimal
    Dim xmemorytransferrate(3) As Decimal
    Public xmaximummemory(3) As Decimal
    Dim performagpu(3) As Decimal

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim ds2 As DataSet = New DataSet()
    Dim ds3 As DataSet = New DataSet()
    Dim ds4 As DataSet = New DataSet()
    Dim ds5 As DataSet = New DataSet()
    Dim ds6 As DataSet = New DataSet()
    Dim ds7 As DataSet = New DataSet()
    Dim ds8 As DataSet = New DataSet()
    Dim ds9 As DataSet = New DataSet()
    Dim ds10 As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    'counter
    Dim counter1 As Integer = 0
    Dim counter2 As Integer = 0
    Dim counter3 As Integer = 0
```

```
    Dim counter4 As Integer = 0
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 4xx'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds, "GPU")
        dt = ds.Tables("GPU")
        Me.DataGridView1.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 5xx'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds2, "GPU")
        dt = ds2.Tables("GPU")
        Me.DataGridView2.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 6xx'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds3, "GPU")
        dt = ds3.Tables("GPU")
        Me.DataGridView3.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU  where Seri_GPU = 'GeForce 7xx'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds4, "GPU")
        dt = ds4.Tables("GPU")
        Me.DataGridView4.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 8xx'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds5, "GPU")
        dt = ds5.Tables("GPU")
        Me.DataGridView5.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 1x'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds6, "GPU")
        dt = ds6.Tables("GPU")
        Me.DataGridView6.DataSource = dt
```

```
        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 2x'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds7, "GPU")
        dt = ds7.Tables("GPU")
        Me.DataGridView7.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 3x'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds8, "GPU")
        dt = ds8.Tables("GPU")
        Me.DataGridView8.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 4x'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds9, "GPU")
        dt = ds9.Tables("GPU")
        Me.DataGridView9.DataSource = dt

        Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 5x'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds10, "GPU")
        dt = ds10.Tables("GPU")
        Me.DataGridView10.DataSource = dt

        gpu1.Text = ""
        gpu2.Text = ""
        gpu3.Text = ""
        gpu4.Text = ""
    End Sub

    Function hitung(ByVal q)
        Dim a(20) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(20) As Char
        Dim pem As String = ""
        Dim pen As String = ""
        Dim penyebut(20) As Char
        Dim hasil As Decimal

        panjang = q.Length
        For x = 0 To (panjang - 1)
            a(x) = q(x)
            If a(x) = "/" Then
                b = x
            End If
        Next
        If b = 0 Then
            Return q
        Else
```

```
            For x = 0 To (b - 1)
                pembilang(x) = q(x)
                pem = pem + pembilang(x)
            Next
            For x = (b + 1) To (panjang - 1)
                penyebut(x) = q(x)
                pen = pen + penyebut(x)
            Next
            hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
            q = hasil
            Return q
        End If
    End Function

    Private Sub Choose_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addgpu1.Click
        Dim rows As Integer
        performagpu1.Text = ""

        If counter1 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView1.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView2.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView3.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
```

```
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView4.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView5.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView6.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView7.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 7 Then
                rows = DataGridView8.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView8.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(1).Value)
```

```
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 8 Then
                rows = DataGridView9.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView9.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            ElseIf TabControl2.SelectedIndex = 9 Then
                rows = DataGridView10.CurrentCellAddress.Y
                xnamagpu(0) = DataGridView10.Rows(rows).Cells(0).Value
                xcoreclock(0) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(1).Value)
                xmemoryclock(0) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(2).Value)
                xmemoryinterface(0) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(3).Value)
                xmemorytransferrate(0) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(4).Value)
                xmaximummemory(0) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(5).Value)
                gpu1.Text = xnamagpu(0)
            End If
            counter1 = 1
            addgpu1.Text = "Cancel"
        ElseIf counter1 = 1 Then
            xnamagpu(0) = ""
            xcoreclock(0) = 0
            xmemoryclock(0) = 0
            xmemoryinterface(0) = 0
            xmemorytransferrate(0) = 0
            xmaximummemory(0) = 0
            gpu1.Text = ""
            performagpu1.Text = ""
            xcoreclock0.Text = ""
            xmemoryclock0.Text = ""
            xmemoryinterface0.Text = ""
            xmemorytransferrate0.Text = ""
            xmaximummemory0.Text = ""
            addgpu1.Text = "Add GPU 1"
            counter1 = 0
        End If

        gpu1.Show()

    End Sub
```

```
    Private Sub addgpu2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addgpu2.Click
        Dim rows As Integer
        performagpu2.Text = ""

        If counter2 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView1.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView2.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView3.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView4.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
```

```
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView5.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)

            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView6.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView7.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 7 Then
                rows = DataGridView8.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView8.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 8 Then
                rows = DataGridView9.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView9.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(1).Value)
```

```
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            ElseIf TabControl2.SelectedIndex = 9 Then
                rows = DataGridView10.CurrentCellAddress.Y
                xnamagpu(1) = DataGridView10.Rows(rows).Cells(0).Value
                xcoreclock(1) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(1).Value)
                xmemoryclock(1) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(2).Value)
                xmemoryinterface(1) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(3).Value)
                xmemorytransferrate(1) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(4).Value)
                xmaximummemory(1) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(5).Value)
                gpu2.Text = xnamagpu(1)
            End If
            counter2 = 1
            addgpu2.Text = "Cancel"
        ElseIf counter2 = 1 Then
            xnamagpu(1) = ""
            xcoreclock(1) = 0
            xmemoryclock(1) = 0
            xmemoryinterface(1) = 0
            xmemorytransferrate(1) = 0
            xmaximummemory(1) = 0
            gpu2.Text = ""
            performagpu2.Text = ""
            xcoreclock1.Text = ""
            xmemoryclock1.Text = ""
            xmemoryinterface1.Text = ""
            xmemorytransferrate1.Text = ""
            xmaximummemory1.Text = ""
            addgpu2.Text = "Add GPU 2"
            counter2 = 0
        End If

        gpu2.Show()
    End Sub

    Private Sub addgpu3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addgpu3.Click
        Dim rows As Integer
        performagpu3.Text = ""

        If counter3 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView1.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
```

```
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView2.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView3.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView4.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView5.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
```

```
            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView6.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView7.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 7 Then
                rows = DataGridView8.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView8.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 8 Then
                rows = DataGridView9.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView9.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(1).Value)
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)
            ElseIf TabControl2.SelectedIndex = 9 Then
                rows = DataGridView10.CurrentCellAddress.Y
                xnamagpu(2) = DataGridView10.Rows(rows).Cells(0).Value
                xcoreclock(2) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(1).Value)
```

```
                xmemoryclock(2) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(2).Value)
                xmemoryinterface(2) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(3).Value)
                xmemorytransferrate(2) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(4).Value)
                xmaximummemory(2) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(5).Value)
                gpu3.Text = xnamagpu(2)

            End If
            counter3 = 1
            addgpu3.Text = "Cancel"
        ElseIf counter3 = 1 Then
            xnamagpu(2) = ""
            xcoreclock(2) = 0
            xmemoryclock(2) = 0
            xmemoryinterface(2) = 0
            xmemorytransferrate(2) = 0
            xmaximummemory(2) = 0
            gpu3.Text = ""
            performagpu3.Text = ""
            xcoreclock2.Text = ""
            xmemoryclock2.Text = ""
            xmemoryinterface2.Text = ""
            xmemorytransferrate2.Text = ""
            xmaximummemory2.Text = ""
            addgpu3.Text = "Add GPU 3"
            counter3 = 0
        End If

        gpu3.Show()
    End Sub

    Private Sub addgpu4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addgpu4.Click
        Dim rows As Integer
        performagpu4.Text = ""

        If counter4 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView1.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView2.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value)
```

```
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView2.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView3.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView3.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView4.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView4.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView5.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView5.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)

            ElseIf TabControl2.SelectedIndex = 5 Then
                rows = DataGridView6.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView6.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(4).Value)
```

```
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView6.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 6 Then
                rows = DataGridView7.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView7.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView7.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 7 Then
                rows = DataGridView8.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView8.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView8.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 8 Then
                rows = DataGridView9.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView9.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView9.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)
            ElseIf TabControl2.SelectedIndex = 9 Then
                rows = DataGridView10.CurrentCellAddress.Y
                xnamagpu(3) = DataGridView10.Rows(rows).Cells(0).Value
                xcoreclock(3) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(1).Value)
                xmemoryclock(3) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(2).Value)
                xmemoryinterface(3) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(3).Value)
                xmemorytransferrate(3) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(4).Value)
                xmaximummemory(3) =
Convert.ToDecimal(DataGridView10.Rows(rows).Cells(5).Value)
                gpu4.Text = xnamagpu(3)


            End If
```

```
            counter4 = 1
            addgpu4.Text = "Cancel"
        ElseIf counter4 = 1 Then
            xnamagpu(3) = ""
            xcoreclock(3) = 0
            xmemoryclock(3) = 0
            xmemoryinterface(3) = 0
            xmemorytransferrate(3) = 0
            xmaximummemory(3) = 0
            gpu4.Text = ""
            performagpu4.Text = ""
            xcoreclock3.Text = ""
            xmemoryclock3.Text = ""
            xmemoryinterface3.Text = ""
            xmemorytransferrate3.Text = ""
            xmaximummemory3.Text = ""
            addgpu4.Text = "Add GPU 4"
            counter4 = 0
        End If

        gpu4.Show()
    End Sub

    Private Sub Calculate_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Calculate.Click
        Form4x.g(1) = Convert.ToDecimal(xmaximummemory(0))
        Form4x.g(2) = Convert.ToDecimal(xmaximummemory(1))
        Form4x.g(3) = Convert.ToDecimal(xmaximummemory(2))
        Form4x.g(4) = Convert.ToDecimal(xmaximummemory(3))

        xcoreclock0.Text = Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(0) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))
        xcoreclock1.Text = Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(1) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))
        xcoreclock2.Text = Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(2) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))
        xcoreclock3.Text = Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(3) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))
        xmemoryclock0.Text = Convert.ToDecimal(vektormemoryclock.Text) *
(xmemoryclock(0) / (xmemoryclock(0) + xmemoryclock(1) + xmemoryclock(2) +
xmemoryclock(3)))
        xmemoryclock1.Text = Convert.ToDecimal(vektormemoryclock.Text) *
(xmemoryclock(1) / (xmemoryclock(0) + xmemoryclock(1) + xmemoryclock(2) +
xmemoryclock(3)))
        xmemoryclock2.Text = Convert.ToDecimal(vektormemoryclock.Text) *
(xmemoryclock(2) / (xmemoryclock(0) + xmemoryclock(1) + xmemoryclock(2) +
xmemoryclock(3)))
        xmemoryclock3.Text = Convert.ToDecimal(vektormemoryclock.Text) *
(xmemoryclock(3) / (xmemoryclock(0) + xmemoryclock(1) + xmemoryclock(2) +
xmemoryclock(3)))
        xmemoryinterface0.Text = Convert.ToDecimal(vektormemoryinterface.Text) *
(xmemoryinterface(0) / (xmemoryinterface(0) + xmemoryinterface(1) +
xmemoryinterface(2) + xmemoryinterface(3)))
        xmemoryinterface1.Text = Convert.ToDecimal(vektormemoryinterface.Text) *
(xmemoryinterface(1) / (xmemoryinterface(0) + xmemoryinterface(1) +
xmemoryinterface(2) + xmemoryinterface(3)))
        xmemoryinterface2.Text = Convert.ToDecimal(vektormemoryinterface.Text) *
(xmemoryinterface(2) / (xmemoryinterface(0) + xmemoryinterface(1) +
xmemoryinterface(2) + xmemoryinterface(3)))
        xmemoryinterface3.Text = Convert.ToDecimal(vektormemoryinterface.Text) *
(xmemoryinterface(3) / (xmemoryinterface(0) + xmemoryinterface(1) +
xmemoryinterface(2) + xmemoryinterface(3)))
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        xmemorytransferrate0.Text = Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(0) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))
        xmemorytransferrate1.Text = Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(1) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))
        xmemorytransferrate2.Text = Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(2) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))
        xmemorytransferrate3.Text = Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(3) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))
        xmaximummemory0.Text = Convert.ToDecimal(vektormaximummemory.Text) *
(xmaximummemory(0) / (xmaximummemory(0) + xmaximummemory(1) + xmaximummemory(2) +
xmaximummemory(3)))
        xmaximummemory1.Text = Convert.ToDecimal(vektormaximummemory.Text) *
(xmaximummemory(1) / (xmaximummemory(0) + xmaximummemory(1) + xmaximummemory(2) +
xmaximummemory(3)))
        xmaximummemory2.Text = Convert.ToDecimal(vektormaximummemory.Text) *
(xmaximummemory(2) / (xmaximummemory(0) + xmaximummemory(1) + xmaximummemory(2) +
xmaximummemory(3)))
        xmaximummemory3.Text = Convert.ToDecimal(vektormaximummemory.Text) *
(xmaximummemory(3) / (xmaximummemory(0) + xmaximummemory(1) + xmaximummemory(2) +
xmaximummemory(3)))

        performagpu(0) = Convert.ToDecimal(xcoreclock0.Text) +
Convert.ToDecimal(xmemoryclock0.Text) + Convert.ToDecimal(xmemoryinterface0.Text) +
Convert.ToDecimal(xmemorytransferrate0.Text) + Convert.ToDecimal(xmaximummemory0.Text)
        performagpu(1) = Convert.ToDecimal(xcoreclock1.Text) +
Convert.ToDecimal(xmemoryclock1.Text) + Convert.ToDecimal(xmemoryinterface1.Text) +
Convert.ToDecimal(xmemorytransferrate1.Text) + Convert.ToDecimal(xmaximummemory1.Text)
        performagpu(2) = Convert.ToDecimal(xcoreclock2.Text) +
Convert.ToDecimal(xmemoryclock2.Text) + Convert.ToDecimal(xmemoryinterface2.Text) +
Convert.ToDecimal(xmemorytransferrate2.Text) + Convert.ToDecimal(xmaximummemory2.Text)
        performagpu(3) = Convert.ToDecimal(xcoreclock3.Text) +
Convert.ToDecimal(xmemoryclock3.Text) + Convert.ToDecimal(xmemoryinterface3.Text) +
Convert.ToDecimal(xmemorytransferrate3.Text) + Convert.ToDecimal(xmaximummemory3.Text)

        'performagpu(0) = ((Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(0) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))) +
(Convert.ToDecimal(vektormemoryclock.Text) * (xmemoryclock(0) / (xmemoryclock(0) +
xmemoryclock(1) + xmemoryclock(2) + xmemoryclock(3)))) +
(Convert.ToDecimal(vektormemoryinterface.Text) * (xmemoryinterface(0) /
(xmemoryinterface(0) + xmemoryinterface(1) + xmemoryinterface(2) +
xmemoryinterface(3)))) + (Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(0) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))) +
(Convert.ToDecimal(vektormaximummemory.Text) * (xmaximummemory(0) / (xmaximummemory(0)
+ xmaximummemory(1) + xmaximummemory(2) + xmaximummemory(3))))).ToString
        'performagpu(1) = ((Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(1) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))) +
(Convert.ToDecimal(vektormemoryclock.Text) * (xmemoryclock(1) / (xmemoryclock(0) +
xmemoryclock(1) + xmemoryclock(2) + xmemoryclock(3)))) +
(Convert.ToDecimal(vektormemoryinterface.Text) * (xmemoryinterface(1) /
(xmemoryinterface(0) + xmemoryinterface(1) + xmemoryinterface(2) +
xmemoryinterface(3)))) + (Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(1) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))) +
(Convert.ToDecimal(vektormaximummemory.Text) * (xmaximummemory(1) / (xmaximummemory(0)
+ xmaximummemory(1) + xmaximummemory(2) + xmaximummemory(3))))).ToString
        'performagpu(2) = ((Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(2) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))) +
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(Convert.ToDecimal(vektormemoryclock.Text) * (xmemoryclock(2) / (xmemoryclock(0) +
xmemoryclock(1) + xmemoryclock(2) + xmemoryclock(3)))) +
(Convert.ToDecimal(vektormemoryinterface.Text) * (xmemoryinterface(2) /
(xmemoryinterface(0) + xmemoryinterface(1) + xmemoryinterface(2) +
xmemoryinterface(3)))) + (Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(2) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))) +
(Convert.ToDecimal(vektormaximummemory.Text) * (xmaximummemory(2) / (xmaximummemory(0)
+ xmaximummemory(1) + xmaximummemory(2) + xmaximummemory(3)))))).ToString
        'performagpu(3) = ((Convert.ToDecimal(vektorcoreclock.Text) * (xcoreclock(3) /
(xcoreclock(0) + xcoreclock(1) + xcoreclock(2) + xcoreclock(3)))) +
(Convert.ToDecimal(vektormemoryclock.Text) * (xmemoryclock(3) / (xmemoryclock(0) +
xmemoryclock(1) + xmemoryclock(2) + xmemoryclock(3)))) +
(Convert.ToDecimal(vektormemoryinterface.Text) * (xmemoryinterface(3) /
(xmemoryinterface(0) + xmemoryinterface(1) + xmemoryinterface(2) +
xmemoryinterface(3)))) + (Convert.ToDecimal(vektormemorytransferrate.Text) *
(xmemorytransferrate(3) / (xmemorytransferrate(0) + xmemorytransferrate(1) +
xmemorytransferrate(2) + xmemorytransferrate(3)))) +
(Convert.ToDecimal(vektormaximummemory.Text) * (xmaximummemory(3) / (xmaximummemory(0)
+ xmaximummemory(1) + xmaximummemory(2) + xmaximummemory(3)))))).ToString
        'MessageBox.Show(performagpu(0).ToString + "  " + performagpu(1).ToString + "
" + performagpu(2).ToString + "  " + performagpu(3).ToString)

        performagpu1.Text = performagpu(0)
        performagpu2.Text = performagpu(1)
        performagpu3.Text = performagpu(2)
        performagpu4.Text = performagpu(3)
        performagpu1.Show()
        performagpu2.Show()
        performagpu3.Show()
        performagpu4.Show()
        xcoreclock0.Show()
        xcoreclock1.Show()
        xcoreclock2.Show()
        xcoreclock3.Show()
        xmemoryclock0.Show()
        xmemoryclock1.Show()
        xmemoryclock2.Show()
        xmemoryclock3.Show()
        xmemoryinterface0.Show()
        xmemoryinterface1.Show()
        xmemoryinterface2.Show()
        xmemoryinterface3.Show()
        xmemorytransferrate0.Show()
        xmemorytransferrate1.Show()
        xmemorytransferrate2.Show()
        xmemorytransferrate3.Show()
        xmaximummemory0.Show()
        xmaximummemory1.Show()
        xmaximummemory2.Show()
        xmaximummemory3.Show()

        Form4.pgpu1.Text = performagpu1.Text
        Form4.pgpu2.Text = performagpu2.Text
        Form4.pgpu3.Text = performagpu3.Text
        Form4.pgpu4.Text = performagpu4.Text
        Form4.ngpu1.Text = gpu1.Text
        Form4.ngpu2.Text = gpu2.Text
        Form4.ngpu3.Text = gpu3.Text
        Form4.ngpu4.Text = gpu4.Text

        Form4x.pgpu1.Text = performagpu1.Text
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        Form4x.pgpu2.Text = performagpu2.Text
        Form4x.pgpu3.Text = performagpu3.Text
        Form4x.pgpu4.Text = performagpu4.Text
        Form4x.ngpu1.Text = gpu1.Text
        Form4x.ngpu2.Text = gpu2.Text
        Form4x.ngpu3.Text = gpu3.Text
        Form4x.ngpu4.Text = gpu4.Text

    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click

        Dim rows As Integer

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            Form6.namaedit = DataGridView1.Rows(rows).Cells(0).Value
            Form6.coreclockedit = DataGridView1.Rows(rows).Cells(1).Value
            Form6.memoryclockedit = DataGridView1.Rows(rows).Cells(2).Value
            Form6.memoryinterfaceedit = DataGridView1.Rows(rows).Cells(3).Value
            Form6.memorytransferrateedit = DataGridView1.Rows(rows).Cells(4).Value
            Form6.maximummemoryedit = DataGridView1.Rows(rows).Cells(5).Value
            Form6.tipe = 0
        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            Form6.namaedit = DataGridView2.Rows(rows).Cells(0).Value
            Form6.coreclockedit = DataGridView2.Rows(rows).Cells(1).Value
            Form6.memoryclockedit = DataGridView2.Rows(rows).Cells(2).Value
            Form6.memoryinterfaceedit = DataGridView2.Rows(rows).Cells(3).Value
            Form6.memorytransferrateedit = DataGridView2.Rows(rows).Cells(4).Value
            Form6.maximummemoryedit = DataGridView2.Rows(rows).Cells(5).Value
            Form6.tipe = 1
        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            Form6.namaedit = DataGridView3.Rows(rows).Cells(0).Value
            Form6.coreclockedit = DataGridView3.Rows(rows).Cells(1).Value
            Form6.memoryclockedit = DataGridView3.Rows(rows).Cells(2).Value
            Form6.memoryinterfaceedit = DataGridView3.Rows(rows).Cells(3).Value
            Form6.memorytransferrateedit = DataGridView3.Rows(rows).Cells(4).Value
            Form6.maximummemoryedit = DataGridView3.Rows(rows).Cells(5).Value
            Form6.tipe = 2
        ElseIf TabControl2.SelectedIndex = 3 Then
            rows = DataGridView4.CurrentCellAddress.Y
```

```
        Form6.namaedit = DataGridView4.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView4.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView4.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView4.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView4.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView4.Rows(rows).Cells(5).Value
        Form6.tipe = 3
    ElseIf TabControl2.SelectedIndex = 4 Then
        rows = DataGridView5.CurrentCellAddress.Y
        Form6.namaedit = DataGridView5.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView5.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView5.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView5.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView5.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView5.Rows(rows).Cells(5).Value
        Form6.tipe = 4

    ElseIf TabControl2.SelectedIndex = 5 Then
        rows = DataGridView6.CurrentCellAddress.Y
        Form6.namaedit = DataGridView6.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView6.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView6.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView6.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView6.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView6.Rows(rows).Cells(5).Value
        Form6.tipe = 5
    ElseIf TabControl2.SelectedIndex = 6 Then
        rows = DataGridView7.CurrentCellAddress.Y
        Form6.namaedit = DataGridView7.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView7.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView7.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView7.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView7.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView7.Rows(rows).Cells(5).Value
        Form6.tipe = 6
    ElseIf TabControl2.SelectedIndex = 7 Then
        rows = DataGridView8.CurrentCellAddress.Y
        Form6.namaedit = DataGridView8.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView8.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView8.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView8.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView8.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView8.Rows(rows).Cells(5).Value
        Form6.tipe = 7
    ElseIf TabControl2.SelectedIndex = 8 Then
        rows = DataGridView9.CurrentCellAddress.Y
        Form6.namaedit = DataGridView9.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView9.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView9.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView9.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView9.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView9.Rows(rows).Cells(5).Value
        Form6.tipe = 8
    ElseIf TabControl2.SelectedIndex = 9 Then
        rows = DataGridView10.CurrentCellAddress.Y
        Form6.namaedit = DataGridView10.Rows(rows).Cells(0).Value
        Form6.coreclockedit = DataGridView10.Rows(rows).Cells(1).Value
        Form6.memoryclockedit = DataGridView10.Rows(rows).Cells(2).Value
        Form6.memoryinterfaceedit = DataGridView10.Rows(rows).Cells(3).Value
        Form6.memorytransferrateedit = DataGridView10.Rows(rows).Cells(4).Value
        Form6.maximummemoryedit = DataGridView10.Rows(rows).Cells(5).Value
        Form6.tipe = 9
```

```
        End If

        Form6.Show()
        Me.Close()
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Dim rows As Integer
        Dim namadelete As String

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            namadelete = DataGridView1.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds, "GPU")
            dt = ds.Tables("GPU")
            con.Close()

            ds.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 4xx'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "GPU")
            dt = ds.Tables("GPU")
            Me.DataGridView1.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            namadelete = DataGridView2.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds2, "GPU")
            dt = ds2.Tables("GPU")
            con.Close()

            ds2.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 5xx'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds2, "GPU")
            dt = ds2.Tables("GPU")
            Me.DataGridView2.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            namadelete = DataGridView3.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
```

```
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds3, "GPU")
            dt = ds3.Tables("GPU")
            con.Close()

            ds3.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 6xx'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds3, "GPU")
            dt = ds3.Tables("GPU")
            Me.DataGridView3.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 3 Then
            rows = DataGridView4.CurrentCellAddress.Y
            namadelete = DataGridView4.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds4, "GPU")
            dt = ds4.Tables("GPU")
            con.Close()

            ds4.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 7xx'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds4, "GPU")
            dt = ds4.Tables("GPU")
            Me.DataGridView4.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 4 Then
            rows = DataGridView5.CurrentCellAddress.Y
            namadelete = DataGridView5.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds5, "GPU")
            dt = ds5.Tables("GPU")
            con.Close()

            ds5.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 8xx'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds5, "GPU")
            dt = ds5.Tables("GPU")
            Me.DataGridView5.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 5 Then
            rows = DataGridView6.CurrentCellAddress.Y
            namadelete = DataGridView6.Rows(rows).Cells(0).Value
```

```
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds6, "GPU")
            dt = ds6.Tables("GPU")
            con.Close()

            ds6.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 1x'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds6, "GPU")
            dt = ds6.Tables("GPU")
            Me.DataGridView6.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 6 Then
            rows = DataGridView7.CurrentCellAddress.Y
            namadelete = DataGridView7.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds7, "GPU")
            dt = ds7.Tables("GPU")
            con.Close()

            ds7.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 2x'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds7, "GPU")
            dt = ds7.Tables("GPU")
            Me.DataGridView7.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 7 Then
            rows = DataGridView8.CurrentCellAddress.Y
            namadelete = DataGridView8.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds8, "GPU")
            dt = ds8.Tables("GPU")
            con.Close()

            ds8.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 3x'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds8, "GPU")
            dt = ds8.Tables("GPU")
            Me.DataGridView8.DataSource = dt
```

```
        ElseIf TabControl2.SelectedIndex = 8 Then
            rows = DataGridView9.CurrentCellAddress.Y
            namadelete = DataGridView9.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds9, "GPU")
            dt = ds9.Tables("GPU")
            con.Close()

            ds9.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 4x'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds9, "GPU")
            dt = ds9.Tables("GPU")
            Me.DataGridView9.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 9 Then
            rows = DataGridView10.CurrentCellAddress.Y
            namadelete = DataGridView10.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from GPU where Nama_GPU like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds10, "GPU")
            dt = ds10.Tables("GPU")
            con.Close()

            ds10.Clear()
            Me.sql = "SELECT
Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_Memory
from GPU where Seri_GPU = 'GeForce 5x'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds10, "GPU")
            dt = ds10.Tables("GPU")
            Me.DataGridView10.DataSource = dt
        End If

    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Form6x.Show()
        Me.Close()
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        Form2.Show()
        Me.Hide()
    End Sub

    Private Sub Button8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button8.Click
```

```
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub vektormemorytransferrate_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles vektormemorytransferrate.Click

    End Sub
End Class
```

‘Form3’

```
Imports System.Data.SqlClient

Public Class Form3
    Dim nextcounter As Integer
    Dim xnamaram(3) As String
    Public xmemorysize(3) As Decimal
    Dim xaccestime(3) As Decimal
    Dim performaram(3) As Decimal

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim ds2 As DataSet = New DataSet()
    Dim ds3 As DataSet = New DataSet()
    Dim ds4 As DataSet = New DataSet()
    Dim ds5 As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        ram12.Text = ""
        ram12.ReadOnly = False
        ram21.Text = ""
        ram11.Text = "1"
        ram22.Text = "1"
        nextcounter = 0
        vektormemorysize.Text = ""
        vektoraccestime.Text = ""
        ramlamdamax.Text = ""
        konsistensi.Text = ""
        ramkonsistensi.Text = ""
    End Sub

    Function hitung(ByVal q)
        Dim a(50) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(25) As Char
        Dim pem As String = ""
        Dim pen As String = ""
```

```
        Dim penyebut(25) As Char
        Dim hasil As Decimal

        panjang = q.Length
        For x = 0 To (panjang - 1)
            a(x) = q(x)
            If a(x) = "/" Then
                b = x
            End If
        Next
        If b = 0 Then
            Return q
        Else
            For x = 0 To (b - 1)
                pembilang(x) = q(x)
                pem = pem + pembilang(x)
            Next
            For x = (b + 1) To (panjang - 1)
                penyebut(x) = q(x)
                pen = pen + penyebut(x)
            Next
            hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
            q = hasil
            Return q
        End If
    End Function

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click

        If nextcounter = 3 Then
            try

            Form3x.vektormemorysize.Text = vektormemorysize.Text
            Form3x.vektoraccestime.Text = vektoraccestime.Text
            Form3x.ramlamdamax.Text = ramlamdamax.Text
            Form3x.ramkonsistensi.Text = ramkonsistensi.Text
            Form3x.konsistensi.Text = konsistensi.Text
            Form3x.Show()
                Me.Hide()

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 2 Then
            try

            ram11.Text = Convert.ToDecimal(ram11.Text) / Convert.ToDecimal(ram61.Text)
            ram21.Text = Convert.ToDecimal(ram21.Text) / Convert.ToDecimal(ram61.Text)
            ram12.Text = Convert.ToDecimal(ram12.Text) / Convert.ToDecimal(ram62.Text)
                ram22.Text = Convert.ToDecimal(ram22.Text) /
Convert.ToDecimal(ram62.Text)


                vektormemorysize.Text = (Convert.ToDecimal(ram11.Text) +
Convert.ToDecimal(ram12.Text)) * (1 / 2)
                vektoraccestime.Text = (Convert.ToDecimal(ram21.Text) +
Convert.ToDecimal(ram22.Text)) * (1 / 2)
```

```
                Dim vektorpembagi As Decimal =
Convert.ToDecimal(vektormemorysize.Text) + Convert.ToDecimal(vektoraccestime.Text)
                vektormemorysize.Text = (Convert.ToDecimal(vektormemorysize.Text) /
vektorpembagi).ToString
                vektoraccestime.Text = (Convert.ToDecimal(vektoraccestime.Text) /
vektorpembagi).ToString
                vektormemorysize.Show()
                vektoraccestime.Show()

            ram16.Text = Convert.ToDecimal(ram11.Text) + Convert.ToDecimal(ram12.Text)
            ram26.Text = Convert.ToDecimal(ram21.Text) + Convert.ToDecimal(ram22.Text)
            ramlamdamax.Text = (((Convert.ToDecimal(ram61.Text) *
Convert.ToDecimal(ram16.Text) / 2) + (Convert.ToDecimal(ram62.Text) *
Convert.ToDecimal(ram26.Text) / 2)))
            ramkonsistensi.Text = (((Convert.ToDecimal(ramlamdamax.Text) - 2) /
1).ToString)
            ramlamdamax.Text = +(ramlamdamax.Text)
            ramkonsistensi.Text = ((ramkonsistensi.Text).ToString)

            If ((ramkonsistensi.Text) > (1 / 10)) Then
                konsistensi.Text = " inconsistent"
            Else
                konsistensi.Text = " consistent"
            End If
            ramlamdamax.Show()
            ramkonsistensi.Show()
            konsistensi.Show()
            ram61.Text = ""
            ram62.Text = ""
                nextcounter = 3

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 0 Then
            Try

                ram12.Text = hitung(ram12.Text)
                ram21.Text = 1 / Convert.ToDecimal(ram12.Text)
                ram61.Text = Convert.ToDecimal(ram11.Text) +
Convert.ToDecimal(ram21.Text)
                ram62.Text = Convert.ToDecimal(ram12.Text) +
Convert.ToDecimal(ram22.Text)

                'vektormemorysize.Text = (Convert.ToDecimal(ram11.Text) *
Convert.ToDecimal(ram12.Text)) ^ (1 / 2)
                'vektoraccestime.Text = (Convert.ToDecimal(ram21.Text) *
Convert.ToDecimal(ram22.Text)) ^ (1 / 2)

                nextcounter = 2

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        End If
    End Sub
```

```
    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub Form3_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

    End Sub
End Class
```

‘Form3x’

```
Imports System.Data.SqlClient

Public Class Form3x
    Dim nextcounter As Integer
    Dim xnamaram(3) As String
    Public xmemorysize(3) As Decimal
    Dim xaccestime(3) As Decimal
    Dim performaram(3) As Decimal

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    'counter
    Dim counter1 As Integer = 0
    Dim counter2 As Integer = 0
    Dim counter3 As Integer = 0
    Dim counter4 As Integer = 0
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"
```

```
    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        Me.sql = "SELECT Nama_RAM,Memory_Size,Acces_Time from RAM"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds, "RAM")
        dt = ds.Tables("RAM")
        Me.DataGridView1.DataSource = dt

        ram1.Text = ""
        ram2.Text = ""
        ram3.Text = ""
        ram4.Text = ""

    End Sub

    Function hitung(ByVal q)
        Dim a(20) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(20) As Char
        Dim pem As String = ""
        Dim pen As String = ""
        Dim penyebut(20) As Char
        Dim hasil As Decimal

        panjang = q.Length
        For x = 0 To (panjang - 1)
            a(x) = q(x)
            If a(x) = "/" Then
                b = x
            End If
        Next
        If b = 0 Then
            Return q
        Else
            For x = 0 To (b - 1)
                pembilang(x) = q(x)
                pem = pem + pembilang(x)
            Next
            For x = (b + 1) To (panjang - 1)
                penyebut(x) = q(x)
                pen = pen + penyebut(x)
            Next
            hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
            q = hasil
            Return q
        End If
    End Function

    Private Sub Choose_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addram1.Click
        Dim rows As Integer
        performaram1.Text = ""

        If counter1 = 0 Then
          If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaram(0) = DataGridView1.Rows(rows).Cells(0).Value
                xmemorysize(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
```

```
                xaccestime(0) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                ram1.Text = xnamaram(0)
            End If
            counter1 = 1
            addram1.Text = "Cancel"
        ElseIf counter1 = 1 Then
            xnamaram(0) = ""
            xaccestime(0) = 0
            xmemorysize(0) = 0
            ram1.Text = ""
            performaram1.Text = ""
            xmemorysize0.Text = ""
            xaccestime0.Text = ""
            addram1.Text = "Add RAM 1"
            counter1 = 0
        End If

        ram1.Show()
    End Sub

    Private Sub addgpu2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addram2.Click
        Dim rows As Integer
        performaram2.Text = ""

        If counter2 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaram(1) = DataGridView1.Rows(rows).Cells(0).Value
                xmemorysize(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xaccestime(1) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                ram2.Text = xnamaram(1)
            End If
            counter2 = 1
            addram2.Text = "Cancel"
        ElseIf counter2 = 1 Then
            xnamaram(1) = ""
            xaccestime(1) = 0
            xmemorysize(1) = 0
            ram2.Text = ""
            performaram2.Text = ""
            xmemorysize1.Text = ""
            xaccestime1.Text = ""
            addram2.Text = "Add RAM 2"
            counter2 = 0
        End If

        ram2.Show()
    End Sub

    Private Sub addgpu3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addram3.Click
        Dim rows As Integer
        performaram3.Text = ""

        If counter3 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaram(2) = DataGridView1.Rows(rows).Cells(0).Value
```

```
                xmemorysize(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xaccestime(2) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                ram3.Text = xnamaram(2)
            End If
            counter3 = 1
            addram3.Text = "Cancel"
        ElseIf counter3 = 1 Then
            xnamaram(2) = ""
            xaccestime(2) = 0
            xmemorysize(2) = 0
            ram3.Text = ""
            performaram3.Text = ""
            xmemorysize2.Text = ""
            xaccestime2.Text = ""
            addram3.Text = "Add RAM 3"
            counter3 = 0
        End If

        ram3.Show()
    End Sub

    Private Sub addgpu4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles addram4.Click
        Dim rows As Integer
        performaram4.Text = ""

        If counter4 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                xnamaram(3) = DataGridView1.Rows(rows).Cells(0).Value
                xmemorysize(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)
                xaccestime(3) =
Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value)
                ram4.Text = xnamaram(3)
            End If
            counter4 = 1
            addram4.Text = "Cancel"
        ElseIf counter4 = 1 Then
            xnamaram(3) = ""
            xaccestime(3) = 0
            xmemorysize(3) = 0
            ram4.Text = ""
            performaram4.Text = ""
            xmemorysize3.Text = ""
            xaccestime3.Text = ""
            addram4.Text = "Add RAM 4"
            counter4 = 0
        End If
        'a

        ram4.Show()
    End Sub

    Private Sub Calculate_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Calculate.Click
        Form4x.r(1) = Convert.ToDecimal(xmemorysize(0))
        Form4x.r(2) = Convert.ToDecimal(xmemorysize(1))
        Form4x.r(3) = Convert.ToDecimal(xmemorysize(2))
        Form4x.r(4) = Convert.ToDecimal(xmemorysize(3))
```

```
        xmemorysize0.Text = Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(0)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))
        xmemorysize1.Text = Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(1)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))
        xmemorysize2.Text = Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(2)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))
        xmemorysize3.Text = Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(3)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))
        xaccestime0.Text = Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(0) /
(xaccestime(0) + xaccestime(1) + xaccestime(2) + xaccestime(3)))
        xaccestime1.Text = Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(1) /
(xaccestime(0) + xaccestime(1) + xaccestime(2) + xaccestime(3)))
        xaccestime2.Text = Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(2) /
(xaccestime(0) + xaccestime(1) + xaccestime(2) + xaccestime(3)))
        xaccestime3.Text = Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(3) /
(xaccestime(0) + xaccestime(1) + xaccestime(2) + xaccestime(3)))

        performaram(0) = Convert.ToDecimal(xmemorysize0.Text) +
Convert.ToDecimal(xaccestime0.Text)
        performaram(1) = Convert.ToDecimal(xmemorysize1.Text) +
Convert.ToDecimal(xaccestime1.Text)
        performaram(2) = Convert.ToDecimal(xmemorysize2.Text) +
Convert.ToDecimal(xaccestime2.Text)
        performaram(3) = Convert.ToDecimal(xmemorysize3.Text) +
Convert.ToDecimal(xaccestime3.Text)

        'performaram(0) = ((Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(0)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))) +
(Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(0) / (xaccestime(0) +
xaccestime(1) + xaccestime(2) + xaccestime(3))))).ToString
        'performaram(1) = ((Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(1)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))) +
(Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(1) / (xaccestime(0) +
xaccestime(1) + xaccestime(2) + xaccestime(3))))).ToString
        'performaram(2) = ((Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(2)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))) +
(Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(2) / (xaccestime(0) +
xaccestime(1) + xaccestime(2) + xaccestime(3))))).ToString
        'performaram(3) = ((Convert.ToDecimal(vektormemorysize.Text) * (xmemorysize(3)
/ (xmemorysize(0) + xmemorysize(1) + xmemorysize(2) + xmemorysize(3)))) +
(Convert.ToDecimal(vektoraccestime.Text) * (xaccestime(3) / (xaccestime(0) +
xaccestime(1) + xaccestime(2) + xaccestime(3))))).ToString
        'MessageBox.Show(performaram(0).ToString + "  " + performaram(1).ToString + "
" + performaram(2).ToString + "  " + performaram(3).ToString)
        performaram1.Text = performaram(0)
        performaram2.Text = performaram(1)
        performaram3.Text = performaram(2)
        performaram4.Text = performaram(3)
        performaram1.Show()
        performaram2.Show()
        performaram3.Show()
        performaram4.Show()
        xmemorysize0.Show()
        xmemorysize1.Show()
        xmemorysize2.Show()
        xmemorysize3.Show()
        xaccestime0.Show()
        xaccestime1.Show()
        xaccestime2.Show()
        xaccestime3.Show()
```

```
        Form4.pram1.Text = performaram1.Text
        Form4.pram2.Text = performaram2.Text
        Form4.pram3.Text = performaram3.Text
        Form4.pram4.Text = performaram4.Text
        Form4.nram1.Text = ram1.Text
        Form4.nram2.Text = ram2.Text
        Form4.nram3.Text = ram3.Text
        Form4.nram4.Text = ram4.Text

        Form4x.pram1.Text = performaram1.Text
        Form4x.pram2.Text = performaram2.Text
        Form4x.pram3.Text = performaram3.Text
        Form4x.pram4.Text = performaram4.Text
        Form4x.nram1.Text = ram1.Text
        Form4x.nram2.Text = ram2.Text
        Form4x.nram3.Text = ram3.Text
        Form4x.nram4.Text = ram4.Text

    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Dim rows As Integer
        Dim namadelete As String

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            namadelete = DataGridView1.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from RAM where Nama_RAM like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds, "RAM")
            dt = ds.Tables("RAM")
            con.Close()

            ds.Clear()
            Me.sql = "SELECT Nama_RAM,Memory_Size,Acces_Time from RAM "
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "RAM")
            dt = ds.Tables("RAM")
            Me.DataGridView1.DataSource = dt
```

```
        End If
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click

        Dim rows As Integer
        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            Form7.namaedit = DataGridView1.Rows(rows).Cells(0).Value
            Form7.memorysizeedit = DataGridView1.Rows(rows).Cells(1).Value
            Form7.accestimeedit = DataGridView1.Rows(rows).Cells(2).Value
        End If
        Form7.Show()
        Me.Close()
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Form7x.Show()
        Me.Close()
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        Form3.Show()
        Me.Hide()
    End Sub

    Private Sub Button8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button8.Click
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub i3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles i3.Click

    End Sub
End Class
```

‘Form4’


```
Imports System.Data.SqlClient

Public Class Form4
    Dim nextcounter As Integer
    Dim simpan(3, 4) As String
    Dim tampung(3, 4) As Decimal
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Dim adapt As SqlDataAdapter
    Dim con As SqlConnection
    Dim sql As String
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable

    Private Sub cleargpu_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles cleargpu.Click
```

```
        nextcounter = 0
        p12.Text = ""
        p13.Text = ""
        p61.Text = ""
        p23.Text = ""
        p62.Text = ""
        p63.Text = ""
        p21.Text = ""
        p31.Text = ""
        p32.Text = ""
        p16.Text = ""
        p26.Text = ""
        p36.Text = ""
        p11.Text = "1"
        p22.Text = "1"
        p33.Text = "1"
        vektorgpu.Text = ""
        vektorprocessor.Text = ""
        vektorram.Text = ""
        plamdamax.Text = ""
        pkonsistensi.Text = ""
        konsistensi.Text = ""
        p12.ReadOnly = False
        p13.ReadOnly = False
        p23.ReadOnly = False
    End Sub

    Function hitung(ByVal q)
        Dim a(50) As Char
        Dim panjang As Integer
        Dim b As Integer
        Dim pembilang(25) As Char
        Dim pem As String = ""
        Dim pen As String = ""
        Dim penyebut(25) As Char
        Dim hasil As Decimal

        panjang = q.Length
        For x = 0 To (panjang - 1)
            a(x) = q(x)
            If a(x) = "/" Then
                b = x
            End If
        Next
        If b = 0 Then
            Return q
        Else
            For x = 0 To (b - 1)
                pembilang(x) = q(x)
                pem = pem + pembilang(x)
            Next
            For x = (b + 1) To (panjang - 1)
                penyebut(x) = q(x)
                pen = pen + penyebut(x)
            Next
            hasil = Convert.ToDecimal(pem) / Convert.ToDecimal(pen)
            q = hasil
            Return q
        End If
    End Function
```

```
    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        'n=3  RI=0,58
        If nextcounter = 3 Then
            Form4x.vektorgpu.Text = vektorgpu.Text
            Form4x.vektorram.Text = vektorram.Text
            Form4x.vektorprocessor.Text = vektorprocessor.Text
            Form4x.pproc1.Text = Convert.ToDecimal(pproc1.Text) *
Convert.ToDecimal(vektorprocessor.Text)
            Form4x.pproc2.Text = Convert.ToDecimal(pproc2.Text) *
Convert.ToDecimal(vektorprocessor.Text)
            Form4x.pproc3.Text = Convert.ToDecimal(pproc3.Text) *
Convert.ToDecimal(vektorprocessor.Text)
            Form4x.pproc4.Text = Convert.ToDecimal(pproc4.Text) *
Convert.ToDecimal(vektorprocessor.Text)
            Form4x.pgpu1.Text = Convert.ToDecimal(pgpu1.Text) *
Convert.ToDecimal(vektorgpu.Text)
            Form4x.pgpu2.Text = Convert.ToDecimal(pgpu2.Text) *
Convert.ToDecimal(vektorgpu.Text)
            Form4x.pgpu3.Text = Convert.ToDecimal(pgpu3.Text) *
Convert.ToDecimal(vektorgpu.Text)
            Form4x.pgpu4.Text = Convert.ToDecimal(pgpu4.Text) *
Convert.ToDecimal(vektorgpu.Text)
            Form4x.pram1.Text = Convert.ToDecimal(pram1.Text) *
Convert.ToDecimal(vektorram.Text)
            Form4x.pram2.Text = Convert.ToDecimal(pram2.Text) *
Convert.ToDecimal(vektorram.Text)
            Form4x.pram3.Text = Convert.ToDecimal(pram3.Text) *
Convert.ToDecimal(vektorram.Text)
            Form4x.pram4.Text = Convert.ToDecimal(pram4.Text) *
Convert.ToDecimal(vektorram.Text)

            Form4x.Show()
            Me.Hide()

        ElseIf nextcounter = 2 Then
            Try

                p11.Text = Convert.ToDecimal(p11.Text) / Convert.ToDecimal(p61.Text)
                p21.Text = Convert.ToDecimal(p21.Text) / Convert.ToDecimal(p61.Text)
                p31.Text = Convert.ToDecimal(p31.Text) / Convert.ToDecimal(p61.Text)
                p12.Text = Convert.ToDecimal(p12.Text) / Convert.ToDecimal(p62.Text)
                p22.Text = Convert.ToDecimal(p22.Text) / Convert.ToDecimal(p62.Text)
                p32.Text = Convert.ToDecimal(p32.Text) / Convert.ToDecimal(p62.Text)
                p13.Text = Convert.ToDecimal(p13.Text) / Convert.ToDecimal(p63.Text)
                p23.Text = Convert.ToDecimal(p23.Text) / Convert.ToDecimal(p63.Text)
                p33.Text = Convert.ToDecimal(p33.Text) / Convert.ToDecimal(p63.Text)

                vektorgpu.Text = (Convert.ToDecimal(p11.Text) +
Convert.ToDecimal(p12.Text) + Convert.ToDecimal(p13.Text)) * (1 / 3)
                vektorprocessor.Text = (Convert.ToDecimal(p21.Text) +
Convert.ToDecimal(p22.Text) + Convert.ToDecimal(p23.Text)) * (1 / 3)
                vektorram.Text = (Convert.ToDecimal(p31.Text) +
Convert.ToDecimal(p32.Text) + Convert.ToDecimal(p33.Text)) * (1 / 3)

                Dim vektorpembagi As Decimal = Convert.ToDecimal(vektorgpu.Text) +
Convert.ToDecimal(vektorprocessor.Text) + Convert.ToDecimal(vektorram.Text)
                vektorgpu.Text = (Convert.ToDecimal(vektorgpu.Text) /
vektorpembagi).ToString
                vektorprocessor.Text = (Convert.ToDecimal(vektorprocessor.Text) /
vektorpembagi).ToString
```

```
                vektorram.Text = (Convert.ToDecimal(vektorram.Text) /
vektorpembagi).ToString
                vektorgpu.Show()
                vektorprocessor.Show()
                vektorram.Show()

                p16.Text = Convert.ToDecimal(p11.Text) + Convert.ToDecimal(p12.Text) +
Convert.ToDecimal(p13.Text)
                p26.Text = Convert.ToDecimal(p21.Text) + Convert.ToDecimal(p22.Text) +
Convert.ToDecimal(p23.Text)
                p36.Text = Convert.ToDecimal(p31.Text) + Convert.ToDecimal(p32.Text) +
Convert.ToDecimal(p33.Text)
                plamdamax.Text = (((Convert.ToDecimal(p61.Text) *
Convert.ToDecimal(p16.Text) / 3) + (Convert.ToDecimal(p62.Text) *
Convert.ToDecimal(p26.Text) / 3) + (Convert.ToDecimal(p63.Text) *
Convert.ToDecimal(p36.Text) / 3)).ToString)
                plamdamax.Text = (plamdamax.Text)
                pkonsistensi.Text = (((((((Convert.ToDecimal(plamdamax.Text) - 3) / 2)
/ 58) * 100).ToString)))
                pkonsistensi.Text = ((pkonsistensi.Text).ToString)

                If ((pkonsistensi.Text) > (1 / 10)) Then
                    konsistensi.Text = " inconsistent"
                Else
                    konsistensi.Text = " consistent"
                End If
                plamdamax.Show()
                pkonsistensi.Show()
                konsistensi.Show()
                p61.Text = ""
                p62.Text = ""
                p63.Text = ""
                nextcounter = 3

                Form4x.plamdamax.Text = plamdamax.Text
                Form4x.pkonsistensi.Text = pkonsistensi.Text
                Form4x.konsistensi.Text = konsistensi.Text
                Form4x.plamdamax.Show()
                Form4x.pkonsistensi.Show()
                Form4x.konsistensi.Show()

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        ElseIf nextcounter = 0 Then
            Try

                p12.Text = hitung(p12.Text)
                p13.Text = hitung(p13.Text)
                p23.Text = hitung(p23.Text)
                p21.Text = 1 / Convert.ToDecimal(p12.Text)
                p31.Text = 1 / Convert.ToDecimal(p13.Text)
                p32.Text = 1 / Convert.ToDecimal(p23.Text)
                p61.Text = Convert.ToDecimal(p11.Text) + Convert.ToDecimal(p21.Text) +
Convert.ToDecimal(p31.Text)
                p62.Text = Convert.ToDecimal(p12.Text) + Convert.ToDecimal(p22.Text) +
Convert.ToDecimal(p32.Text)
                p63.Text = Convert.ToDecimal(p13.Text) + Convert.ToDecimal(p23.Text) +
Convert.ToDecimal(p33.Text)
```

```
                p12.ReadOnly = True
                p13.ReadOnly = True
                p23.ReadOnly = True

                'vektorgpu.Text = (Convert.ToDecimal(p11.Text) *
Convert.ToDecimal(p12.Text) * Convert.ToDecimal(p13.Text)) ^ (1 / 3)
                'vektorprocessor.Text = (Convert.ToDecimal(p21.Text) *
Convert.ToDecimal(p22.Text) * Convert.ToDecimal(p23.Text)) ^ (1 / 3)
                'vektorram.Text = (Convert.ToDecimal(p31.Text) *
Convert.ToDecimal(p32.Text) * Convert.ToDecimal(p33.Text)) ^ (1 / 3)

                nextcounter = 2

                Form4x.vektorgpu.Text = vektorgpu.Text
                Form4x.vektorprocessor.Text = vektorprocessor.Text
                Form4x.vektorram.Text = vektorram.Text
                Form4x.vektorgpu.Show()
                Form4x.vektorprocessor.Show()
                Form4x.vektorram.Show()

            Catch exc As Exception
                Console.ReadLine()
            Finally
                Console.WriteLine()
            End Try

        End If

    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button1_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button3_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
```

```
        Me.Hide()
        Form8.Show()
    End Sub


    Private Sub Form4_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

    End Sub
End Class
```

‘Form4x’

```
Imports System.Data.SqlClient

Public Class Form4x
    Dim nextcounter As Integer
    'simpan=nama
    'tampung=bobot evluasi
    Dim simpan(3, 4) As String
    Dim tampung(3, 4) As Decimal
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Dim adapt As SqlDataAdapter
    Dim con As SqlConnection
    Dim sql As String
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable

    'max coreclock,ram,gpu dari game(0) max coreclock,ram,gpu dari game(1234)
    Public c(4) As Decimal
    Public r(4) As Decimal
    Public g(4) As Decimal


    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button1_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
```

```
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button3_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        ds.Clear()

            'performa barang dikalikan dengan vektor preferensi

            simpan(0, 0) = ngpu1.Text
            tampung(0, 0) = pgpu1.Text

            simpan(0, 1) = ngpu2.Text
            tampung(0, 1) = pgpu2.Text

            simpan(0, 2) = ngpu3.Text
            tampung(0, 2) = pgpu3.Text

            simpan(0, 3) = ngpu4.Text
            tampung(0, 3) = pgpu4.Text

            simpan(1, 0) = nproc1.Text
            tampung(1, 0) = pproc1.Text

            simpan(1, 1) = nproc2.Text
            tampung(1, 1) = pproc2.Text

            simpan(1, 2) = nproc3.Text
            tampung(1, 2) = pproc3.Text

            simpan(1, 3) = nproc4.Text
            tampung(1, 3) = pproc4.Text

            simpan(2, 0) = nram1.Text
            tampung(2, 0) = pram1.Text

            simpan(2, 1) = nram2.Text
            tampung(2, 1) = pram2.Text

            simpan(2, 2) = nram3.Text
            tampung(2, 2) = pram3.Text

            simpan(2, 3) = nram4.Text
            tampung(2, 3) = pram4.Text

            Dim kombinasinama As String
            Dim kombinasiperforma As String

            For x = 0 To 3
                For y = 0 To 3
                For z = 0 To 3
                    If simpan(0, x) <> "" And simpan(1, y) <> "" And simpan(2, z) <>
"" And c(y + 1) >= c(0) And g(x + 1) >= g(0) And r(z + 1) >= r(0) Then
                        kombinasinama = simpan(0, x) + " + " + simpan(1, y) + " + " +
simpan(2, z)
```

```
                        kombinasiperforma = Convert.ToDecimal(tampung(0, x)) +
Convert.ToDecimal(tampung(1, y)) + Convert.ToDecimal(tampung(2, z))
                        Me.sql = "INSERT INTO Performa VALUES ('" + kombinasinama +
"','" + kombinasiperforma + "')"
                        con = New SqlConnection(connect)
                        Me.adapt = New SqlDataAdapter(sql, con)
                        Me.adapt.Fill(ds, "Performa")
                        dt = ds.Tables("Performa")
                        Me.DataGridView1.DataSource = dt
                    End If
                Next
                Next
            Next

            Me.sql = "SELECT * FROM Performa order by performa"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "Performa")
            dt = ds.Tables("Performa")
            Me.DataGridView1.DataSource = dt

            Me.sql = "DELETE Performa"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "Performa")
            dt = ds.Tables("Performa")

    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Me.Hide()
        Form8.Show()
    End Sub

    Private Sub Form4x_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load

    End Sub
End Class
```

‘Form5’

```
Imports System.Data.SqlClient

Public Class Form5
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
```

```
    Dim sql As String

    Public tipe As String
    Public namaedit As String
    Public coreedit As String
    Public threadsedit As String
    Public clockspeededit As String
    Public cacheedit As String
    Public systembusedit As String
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And
IsNumeric(TextBox6.Text) = True And TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 And TextBox6.Text > 0 Then

                Me.sql = "select count (Nama_Processor) FROM Processor WHERE
Nama_Processor like '" + TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 And TextBox1.Text <> namaedit Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else
                    Me.sql = "UPDATE Processor SET Nama_Processor='" + TextBox1.Text +
"',Core='" + TextBox2.Text + "',Threads='" + TextBox3.Text + "',Clock_Speed='" +
TextBox4.Text + "',Cache='" + TextBox5.Text + "',Bus_System='" + TextBox6.Text +
"',Seri_Processor='" + ComboBox1.Text + "' WHERE Nama_Processor LIKE '" + namaedit +
"' "
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "Processor")
                    dt = ds.Tables("Processor")
                    con.Close()
                    Form1x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub Form5_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        TextBox1.Text = namaedit
        TextBox2.Text = coreedit
        TextBox3.Text = threadsedit
        TextBox4.Text = clockspeededit
        TextBox5.Text = cacheedit
        TextBox6.Text = systembusedit
        ComboBox1.SelectedIndex = tipe
    End Sub
```

```
    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form1x.Show()
        Me.Close()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        TextBox1.Text = namaedit
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        TextBox2.Text = coreedit
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        TextBox3.Text = threadsedit
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        TextBox4.Text = clockspeededit
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        TextBox5.Text = cacheedit
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        TextBox6.Text = systembusedit
    End Sub

    Private Sub Button8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button8.Click
        ComboBox1.SelectedIndex = tipe
    End Sub
End Class
```


‘Form5x’

```
Imports System.Data.SqlClient

Public Class Form5x
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"
```

```
    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And
IsNumeric(TextBox6.Text) = True And TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 And TextBox6.Text > 0 Then

                Me.sql = "select count (Nama_Processor) FROM Processor WHERE
Nama_Processor like '" + TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else

                    Me.sql = "INSERT INTO Processor
(Nama_Processor,Core,Threads,Clock_Speed,Cache,Bus_System,Seri_Processor) VALUES ('" +
TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" + TextBox4.Text
+ "','" + TextBox5.Text + "','" + TextBox6.Text + "','" + ComboBox1.Text + "')"
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "Processor")
                    dt = ds.Tables("Processor")
                    con.Close()
                    Form1x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form1x.Show()
        Me.Close()
    End Sub

    Private Sub Form5x_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        ComboBox1.SelectedIndex = 0
    End Sub
End Class
```

‘Form6’

```
Imports System.Data.SqlClient
```

```
Public Class Form6
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Public tipe As String
    Public namaedit As String
    Public coreclockedit As String
    Public memoryclockedit As String
    Public memoryinterfaceedit As String
    Public memorytransferrateedit As String
    Public maximummemoryedit As String
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And
IsNumeric(TextBox6.Text) = True And TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 And TextBox6.Text > 0 Then

                Me.sql = "select count (Nama_GPU) FROM GPU WHERE Nama_GPU like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 And TextBox1.Text <> namaedit Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else
                    Me.sql = "UPDATE GPU SET Nama_GPU='" + TextBox1.Text +
"',Core_Clock='" + TextBox2.Text + "',Memory_Clock='" + TextBox3.Text +
"',Memory_Interface='" + TextBox4.Text + "',Memory_Transfer_Rate='" + TextBox5.Text +
"',Seri_GPU='" + ComboBox1.Text + "',Maximum_Memory='" + TextBox6.Text + "' WHERE
Nama_GPU LIKE '" + namaedit + "' "
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "GPU")
                    dt = ds.Tables("GPU")
                    con.Close()
                    Form2x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub Form5_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        TextBox1.Text = namaedit
        TextBox2.Text = coreclockedit
```

```
        TextBox3.Text = memoryclockedit
        TextBox4.Text = memoryinterfaceedit
        TextBox5.Text = memorytransferrateedit
        TextBox6.Text = maximummemoryedit
        ComboBox1.SelectedIndex = tipe
    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form2x.Show()
        Me.Close()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        TextBox1.Text = namaedit
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        TextBox2.Text = coreclockedit
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        TextBox3.Text = memoryclockedit
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        TextBox4.Text = memoryinterfaceedit
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        TextBox5.Text = memorytransferrateedit
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        TextBox6.Text = maximummemoryedit
    End Sub


End Class
```

‘Form6x’

```
Imports System.Data.SqlClient

Public Class Form6x
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String
```

```
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And
IsNumeric(TextBox6.Text) = True And TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 And TextBox6.Text > 0 Then

                Me.sql = "select count (Nama_GPU) FROM GPU WHERE Nama_GPU like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else

                    Me.sql = "INSERT INTO GPU
(Nama_GPU,Core_Clock,Memory_Clock,Memory_Interface,Memory_Transfer_Rate,Maximum_memory
,Seri_GPU) VALUES ('" + TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text
+ "','" + TextBox4.Text + "','" + TextBox5.Text + "','" + TextBox6.Text + "','" +
ComboBox1.Text + "')"
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "GPU")
                    dt = ds.Tables("GPU")
                    con.Close()
                    Form2x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form2x.Show()
        Me.Close()
    End Sub

    Private Sub Form5x_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        ComboBox1.SelectedIndex = 0
    End Sub
End Class
```

‘Form7’

```
Imports System.Data.SqlClient

Public Class Form7
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Public tipe As String
    Public namaedit As String
    Public memorysizeedit As String
    Public accestimeedit As String
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 Then

                Me.sql = "select count (Nama_RAM) FROM RAM WHERE Nama_RAM like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 And TextBox1.Text <> namaedit Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else
                    Me.sql = "UPDATE RAM SET Nama_RAM='" + TextBox1.Text +
"',Memory_Size='" + TextBox2.Text + "',Acces_Time='" + TextBox3.Text + "' WHERE
Nama_RAM LIKE '" + namaedit + "' "
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "RAM")
                    dt = ds.Tables("RAM")
                    con.Close()
                    Form3x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub Form5_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        TextBox1.Text = namaedit
        TextBox2.Text = memorysizeedit
        TextBox3.Text = accestimeedit
```

```
    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form3x.Show()
        Me.Close()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        TextBox1.Text = namaedit
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        TextBox2.Text = memorysizeedit
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        TextBox3.Text = accestimeedit
    End Sub
End Class
```

'Form7x'

```
Imports System.Data.SqlClient

Public Class Form7x
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
TextBox1.Text <> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 Then

                Me.sql = "select count (Nama_RAM) FROM RAM WHERE Nama_RAM like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else
```

```
                    Me.sql = "INSERT INTO RAM (Nama_RAM,Memory_Size,Acces_Time) VALUES
('" + TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "')"
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "RAM")
                    dt = ds.Tables("RAM")
                    con.Close()
                    Form3x.Show()
                    Me.Close()
                End If
            End If
        End If

    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form3x.Show()
        Me.Close()
    End Sub

    Private Sub Form7x_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load

    End Sub
End Class
```

‘Form8’

```
Imports System.Data.SqlClient

Public Class Form8
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim ds2 As DataSet = New DataSet()
    Dim ds3 As DataSet = New DataSet()
    Dim ds4 As DataSet = New DataSet()
    Dim ds5 As DataSet = New DataSet()
    Dim ds6 As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    'counter
    Dim counter1 As Integer = 0
    Dim counter2 As Integer = 0
    Dim counter3 As Integer = 0
    Dim counter4 As Integer = 0
    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Form8_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
```

```
        Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Action'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds, "Game")
        dt = ds.Tables("Game")
        Me.DataGridView1.DataSource = dt

        Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Casual'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds2, "Game")
        dt = ds2.Tables("Game")
        Me.DataGridView2.DataSource = dt

        Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'RPG'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds3, "Game")
        dt = ds3.Tables("Game")
        Me.DataGridView3.DataSource = dt

        Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Simulation'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds4, "Game")
        dt = ds4.Tables("Game")
        Me.DataGridView4.DataSource = dt

        Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Strategy'"
        con = New SqlConnection(connect)
        Me.adapt = New SqlDataAdapter(sql, con)
        Me.adapt.Fill(ds5, "Game")
        dt = ds5.Tables("Game")
        Me.DataGridView5.DataSource = dt
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        Me.Hide()
        Form1.Show()
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        Me.Hide()
        Form3.Show()
```

```
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        Me.Hide()
        Form4.Show()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Dim rows As Integer

        If counter1 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                namagame1.Text = DataGridView1.Rows(rows).Cells(0).Value
                'corexclock1.Text =
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                corexclock1.Text =
hitungcore((Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                ram1.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                gpu1.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                namagame1.Text = DataGridView2.Rows(rows).Cells(0).Value
                ' corexclock1.Text =
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                corexclock1.Text =
hitungcore((Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                ram1.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                gpu1.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                namagame1.Text = DataGridView3.Rows(rows).Cells(0).Value
                ' corexclock1.Text =
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                corexclock1.Text =
hitungcore((Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                ram1.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                gpu1.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                namagame1.Text = DataGridView4.Rows(rows).Cells(0).Value
                ' corexclock1.Text =
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                corexclock1.Text =
hitungcore((Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                ram1.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                gpu1.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                namagame1.Text = DataGridView5.Rows(rows).Cells(0).Value
```

```
                ' corexclock1.Text =
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                corexclock1.Text =
hitungcore((Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                ram1.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                gpu1.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
            End If
            namagame1.Show()
            corexclock1.Show()
            ram1.Show()
            gpu1.Show()
            counter1 = 1
            Button1.Text = "Cancel"
        ElseIf counter1 = 1 Then
            namagame1.Text = ""
            corexclock1.Text = ""
            ram1.Text = ""
            gpu1.Text = ""
            ram1.Text = ""
            Button1.Text = "AddGame 1"
            counter1 = 0
        End If

        max()
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        Dim rows As Integer

        If counter2 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                namagame2.Text = DataGridView1.Rows(rows).Cells(0).Value
                ' corexclock2.Text =
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                corexclock2.Text =
hitungcore((Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                ram2.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                gpu2.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                namagame2.Text = DataGridView2.Rows(rows).Cells(0).Value
                ' corexclock2.Text =
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                corexclock2.Text =
hitungcore((Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                ram2.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                gpu2.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                namagame2.Text = DataGridView3.Rows(rows).Cells(0).Value
                'corexclock2.Text =
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
```

```
                corexclock2.Text =
hitungcore((Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                ram2.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                gpu2.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                namagame2.Text = DataGridView4.Rows(rows).Cells(0).Value
                'corexclock2.Text =
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                corexclock2.Text =
hitungcore((Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                ram2.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                gpu2.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                namagame2.Text = DataGridView5.Rows(rows).Cells(0).Value
                'corexclock2.Text =
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                corexclock2.Text =
hitungcore((Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                ram2.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                gpu2.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
            End If
            namagame2.Show()
            corexclock2.Show()
            ram2.Show()
            gpu2.Show()
            counter2 = 1
            Button7.Text = "Cancel"
        ElseIf counter2 = 1 Then
            namagame2.Text = ""
            corexclock2.Text = ""
            ram2.Text = ""
            gpu2.Text = ""
            ram2.Text = ""
            Button7.Text = "Add Game 2"
            counter2 = 0
        End If

        max()
    End Sub

    Private Sub Button8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button8.Click
        Dim rows As Integer

        If counter3 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                namagame3.Text = DataGridView1.Rows(rows).Cells(0).Value
                'corexclock3.Text =
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                corexclock3.Text =
hitungcore((Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                ram3.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
```

```
                gpu3.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                namagame3.Text = DataGridView2.Rows(rows).Cells(0).Value
                'corexclock3.Text =
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                corexclock3.Text =
hitungcore((Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                ram3.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                gpu3.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                namagame3.Text = DataGridView3.Rows(rows).Cells(0).Value
                'corexclock3.Text =
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                corexclock3.Text =
hitungcore((Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                ram3.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                gpu3.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                namagame3.Text = DataGridView4.Rows(rows).Cells(0).Value
                'corexclock3.Text =
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                corexclock3.Text =
hitungcore((Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                ram3.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                gpu3.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                namagame3.Text = DataGridView5.Rows(rows).Cells(0).Value
                'corexclock3.Text =
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                corexclock3.Text =
hitungcore((Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                ram3.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
                gpu3.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
            End If
            namagame3.Show()
            corexclock3.Show()
            ram3.Show()
            gpu3.Show()
            counter3 = 1
            Button8.Text = "Cancel"
        ElseIf counter3 = 1 Then
            namagame3.Text = ""
            corexclock3.Text = ""
            ram3.Text = ""
            gpu3.Text = ""
            ram3.Text = ""
            Button8.Text = "Add Game 3"
            counter3 = 0
        End If
```

```
        max()
    End Sub

    Private Sub Button9_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button9.Click
        Dim rows As Integer

        If counter4 = 0 Then
            If TabControl2.SelectedIndex = 0 Then
                rows = DataGridView1.CurrentCellAddress.Y
                namagame4.Text = DataGridView1.Rows(rows).Cells(0).Value
                'corexclock4.Text =
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                corexclock4.Text =
hitungcore((Convert.ToDecimal(DataGridView1.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView1.Rows(rows).Cells(2).Value))
                ram4.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(3).Value)
                gpu4.Text = Convert.ToDecimal(DataGridView1.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 1 Then
                rows = DataGridView2.CurrentCellAddress.Y
                namagame4.Text = DataGridView2.Rows(rows).Cells(0).Value
                'corexclock4.Text =
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                corexclock4.Text =
hitungcore((Convert.ToDecimal(DataGridView2.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView2.Rows(rows).Cells(2).Value))
                ram4.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(3).Value)
                gpu4.Text = Convert.ToDecimal(DataGridView2.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 2 Then
                rows = DataGridView3.CurrentCellAddress.Y
                namagame4.Text = DataGridView3.Rows(rows).Cells(0).Value
                ' corexclock4.Text =
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                corexclock4.Text =
hitungcore((Convert.ToDecimal(DataGridView3.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView3.Rows(rows).Cells(2).Value))
                ram4.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(3).Value)
                gpu4.Text = Convert.ToDecimal(DataGridView3.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 3 Then
                rows = DataGridView4.CurrentCellAddress.Y
                namagame4.Text = DataGridView4.Rows(rows).Cells(0).Value
                'corexclock4.Text =
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                corexclock4.Text =
hitungcore((Convert.ToDecimal(DataGridView4.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView4.Rows(rows).Cells(2).Value))
                ram4.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(3).Value)
                gpu4.Text = Convert.ToDecimal(DataGridView4.Rows(rows).Cells(4).Value)
            ElseIf TabControl2.SelectedIndex = 4 Then
                rows = DataGridView5.CurrentCellAddress.Y
                namagame4.Text = DataGridView5.Rows(rows).Cells(0).Value
                'corexclock4.Text =
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value)) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                corexclock4.Text =
hitungcore((Convert.ToDecimal(DataGridView5.Rows(rows).Cells(1).Value))) *
(Convert.ToDecimal(DataGridView5.Rows(rows).Cells(2).Value))
                ram4.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(3).Value)
```

```
            gpu4.Text = Convert.ToDecimal(DataGridView5.Rows(rows).Cells(4).Value)
        End If
        namagame4.Show()
        corexclock4.Show()
        ram4.Show()
        gpu4.Show()
        counter4 = 1
        Button9.Text = "Cancel"
    ElseIf counter4 = 1 Then
        namagame4.Text = ""
        corexclock4.Text = ""
        ram4.Text = ""
        gpu4.Text = ""
        ram4.Text = ""
        Button9.Text = "Add Game 4"
        counter4 = 0
    End If

    max()
End Sub

Public Function hitungcore(ByVal n)
    'f=1/n
    'tiap core speedup 1/((1-f)+(f/n))
    '1/((1-1/n)+(1/n/n))
    '1/((n/n-1/n)+(1/(n^2)))
    '1/(((n-1)/n)+(1/(n^2)))
    '1/((((n^2)-n)/n^2)+(1/(n^2))))
    '1/(((n^2)-n+1)/(n^2))
    '(n^2)/((n^2)-n+1)
    'total speedup n core ((n^2)/((n^2)-n+1))^n
    Dim a As Decimal = ((n * n) / ((n * n) - n + 1)) ^ n
    Return a
End Function

Public Function max()
    Dim c1 As Decimal = 0
    Dim c2 As Decimal = 0
    Dim c3 As Decimal = 0
    Dim c4 As Decimal = 0
    Dim c As Decimal = 0

    If IsNumeric(corexclock1.Text) = True Then
        c1 = Convert.ToDecimal(corexclock1.Text)
    End If
    If IsNumeric(corexclock2.Text) = True Then
        c2 = Convert.ToDecimal(corexclock2.Text)
    End If
    If IsNumeric(corexclock3.Text) = True Then
        c3 = Convert.ToDecimal(corexclock3.Text)
    End If
    If IsNumeric(corexclock4.Text) = True Then
        c4 = Convert.ToDecimal(corexclock4.Text)
    End If

    If c1 >= c2 And c1 >= c3 And c1 >= c4 Then
        c = c1
    ElseIf c2 >= c1 And c2 >= c3 And c2 >= c4 Then
        c = c2
    ElseIf c3 >= c1 And c3 >= c2 And c3 >= c4 Then
        c = c3
    ElseIf c4 >= c1 And c4 >= c2 And c4 >= c3 Then
```

```
    c = c4
End If

Dim r1 As Decimal = 0
Dim r2 As Decimal = 0
Dim r3 As Decimal = 0
Dim r4 As Decimal = 0
Dim r As Decimal = 0

If IsNumeric(ram1.Text) = True Then
    r1 = Convert.ToDecimal(ram1.Text)
End If
If IsNumeric(ram2.Text) = True Then
    r2 = Convert.ToDecimal(ram2.Text)
End If
If IsNumeric(ram3.Text) = True Then
    r3 = Convert.ToDecimal(ram3.Text)
End If
If IsNumeric(ram4.Text) = True Then
    r4 = Convert.ToDecimal(ram4.Text)
End If

If r1 >= r2 And r1 >= r3 And r1 >= r4 Then
    r = r1
ElseIf r2 >= r1 And r2 >= r3 And r2 >= r4 Then
    r = r2
ElseIf r3 >= r1 And r3 >= r2 And r3 >= r4 Then
    r = r3
ElseIf r4 >= r1 And r4 >= r2 And r4 >= r3 Then
    r = r4
End If

Dim g1 As Decimal = 0
Dim g2 As Decimal = 0
Dim g3 As Decimal = 0
Dim g4 As Decimal = 0
Dim g As Decimal = 0

If IsNumeric(gpu1.Text) = True Then
    g1 = Convert.ToDecimal(gpu1.Text)
End If
If IsNumeric(gpu2.Text) = True Then
    g2 = Convert.ToDecimal(gpu2.Text)
End If
If IsNumeric(gpu3.Text) = True Then
    g3 = Convert.ToDecimal(gpu3.Text)
End If
If IsNumeric(gpu4.Text) = True Then
    g4 = Convert.ToDecimal(gpu4.Text)
End If

If g1 >= g2 And g1 >= g3 And g1 >= g4 Then
    g = g1
ElseIf g2 >= g1 And g2 >= g3 And g2 >= g4 Then
    g = g2
ElseIf g3 >= g1 And g3 >= g2 And g3 >= g4 Then
    g = g3
ElseIf g4 >= g1 And g4 >= g2 And g4 >= g3 Then
    g = g4
End If

Form4x.c(0) = c
```

```
        Form4x.r(0) = r
        Form4x.g(0) = g

        Return 0
    End Function

    Private Sub Button10_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button10.Click

        Dim rows As Integer
        Dim namadelete As String

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            namadelete = DataGridView1.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Game where Nama_Game like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds, "Game")
            dt = ds.Tables("Game")
            con.Close()

            ds.Clear()
            Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Action'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds, "Game")
            dt = ds.Tables("Game")
            Me.DataGridView1.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            namadelete = DataGridView2.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Game where Nama_Game like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds2, "Game")
            dt = ds2.Tables("Game")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds2.Clear()
            Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Casual'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds2, "Game")
            dt = ds2.Tables("Game")
            Me.DataGridView2.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            namadelete = DataGridView3.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Game where Nama_Game like '" + namadelete + "'"
```

```
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds3, "Game")
            dt = ds3.Tables("Game")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds3.Clear()
            Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'RPG'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds3, "Game")
            dt = ds3.Tables("Game")
            Me.DataGridView3.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 3 Then
            rows = DataGridView4.CurrentCellAddress.Y
            namadelete = DataGridView4.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Game where Nama_Game like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds4, "Game")
            dt = ds4.Tables("Game")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds4.Clear()
            Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Simulation'"
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds4, "Game")
            dt = ds4.Tables("Game")
            Me.DataGridView4.DataSource = dt

        ElseIf TabControl2.SelectedIndex = 4 Then
            rows = DataGridView5.CurrentCellAddress.Y
            namadelete = DataGridView5.Rows(rows).Cells(0).Value
            Me.sql = "DELETE from Game where Nama_Game like '" + namadelete + "'"
            con = New SqlConnection(connect)
            con.Open()
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            Me.adapt.Fill(ds5, "Game")
            dt = ds5.Tables("Game")
            Me.adapt = New SqlDataAdapter(sql, con)
            cmd = New SqlCommand(sql, con)
            con.Close()

            ds5.Clear()
            Me.sql = "SELECT
Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU from Game where
Genre = 'Strategy'"
```

```
            con = New SqlConnection(connect)
            Me.adapt = New SqlDataAdapter(sql, con)
            Me.adapt.Fill(ds5, "Game")
            dt = ds5.Tables("Game")
            Me.DataGridView5.DataSource = dt

        End If

    End Sub

    Private Sub Button11_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button11.Click
        Me.Close()
        form9x.show()
    End Sub

    Private Sub Button12_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button12.Click
        Dim rows As Integer

        If TabControl2.SelectedIndex = 0 Then
            rows = DataGridView1.CurrentCellAddress.Y
            Form9.Nama_Game = DataGridView1.Rows(rows).Cells(0).Value
            Form9.Minimum_Core = DataGridView1.Rows(rows).Cells(1).Value
            Form9.Minimum_Clockspeed = DataGridView1.Rows(rows).Cells(2).Value
            Form9.Minimum_RAM = DataGridView1.Rows(rows).Cells(3).Value
            Form9.Minimum_GPU = DataGridView1.Rows(rows).Cells(4).Value
            Form9.Genre = 0
        ElseIf TabControl2.SelectedIndex = 1 Then
            rows = DataGridView2.CurrentCellAddress.Y
            Form9.Nama_Game = DataGridView2.Rows(rows).Cells(0).Value
            Form9.Minimum_Core = DataGridView2.Rows(rows).Cells(1).Value
            Form9.Minimum_Clockspeed = DataGridView2.Rows(rows).Cells(2).Value
            Form9.Minimum_RAM = DataGridView2.Rows(rows).Cells(3).Value
            Form9.Minimum_GPU = DataGridView2.Rows(rows).Cells(4).Value
            Form9.Genre = 1
        ElseIf TabControl2.SelectedIndex = 2 Then
            rows = DataGridView3.CurrentCellAddress.Y
            Form9.Nama_Game = DataGridView3.Rows(rows).Cells(0).Value
            Form9.Minimum_Core = DataGridView3.Rows(rows).Cells(1).Value
            Form9.Minimum_Clockspeed = DataGridView3.Rows(rows).Cells(2).Value
            Form9.Minimum_RAM = DataGridView3.Rows(rows).Cells(3).Value
            Form9.Minimum_GPU = DataGridView3.Rows(rows).Cells(4).Value
            Form9.Genre = 2
        ElseIf TabControl2.SelectedIndex = 3 Then
            rows = DataGridView4.CurrentCellAddress.Y
            Form9.Nama_Game = DataGridView4.Rows(rows).Cells(0).Value
            Form9.Minimum_Core = DataGridView4.Rows(rows).Cells(1).Value
            Form9.Minimum_Clockspeed = DataGridView4.Rows(rows).Cells(2).Value
            Form9.Minimum_RAM = DataGridView4.Rows(rows).Cells(3).Value
            Form9.Minimum_GPU = DataGridView4.Rows(rows).Cells(4).Value
            Form9.Genre = 3
        ElseIf TabControl2.SelectedIndex = 4 Then
            rows = DataGridView5.CurrentCellAddress.Y
            Form9.Nama_Game = DataGridView5.Rows(rows).Cells(0).Value
            Form9.Minimum_Core = DataGridView5.Rows(rows).Cells(1).Value
            Form9.Minimum_Clockspeed = DataGridView5.Rows(rows).Cells(2).Value
            Form9.Minimum_RAM = DataGridView5.Rows(rows).Cells(3).Value
            Form9.Minimum_GPU = DataGridView5.Rows(rows).Cells(4).Value
            Form9.Genre = 4
        End If
```

```
        Form9.Show()
        Me.Close()
    End Sub
End Class
```

‘Form9’

```
Imports System.Data.SqlClient

Public Class Form9

    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Public Nama_Game As String
    Public Minimum_Core As String
    Public Minimum_Clockspeed As String
    Public Minimum_RAM As String
    Public Minimum_GPU As String
    Public Genre As String

    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"



    Private Sub Form5_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        TextBox1.Text = Nama_Game
        TextBox2.Text = Minimum_Core
        TextBox3.Text = Minimum_Clockspeed
        TextBox4.Text = Minimum_RAM
        TextBox5.Text = Minimum_GPU
        ComboBox1.SelectedIndex = Genre
    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form8.Show()
        Me.Close()
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        TextBox1.Text = Nama_Game
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        TextBox2.Text = Minimum_Core
    End Sub
```

```
    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        TextBox3.Text = Minimum_Clockspeed
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        TextBox4.Text = Minimum_RAM
    End Sub

    Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
        TextBox5.Text = Minimum_GPU
    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button7.Click
        ComboBox1.SelectedIndex = Genre
    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click

        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And TextBox1.Text
<> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 Then

                Me.sql = "select count (Nama_Game) FROM Game WHERE Nama_Game like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 And TextBox1.Text <> Nama_Game Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else
                    Me.sql = "UPDATE Game SET Nama_Game='" + TextBox1.Text +
"',Minimum_Core='" + TextBox2.Text + "',Minimum_Clockspeed='" + TextBox3.Text +
"',Minimum_RAM='" + TextBox4.Text + "',Minimum_GPU='" + TextBox5.Text + "',Genre='" +
ComboBox1.Text + "' WHERE Nama_Game LIKE '" + Nama_Game + "' "
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "Game")
                    dt = ds.Tables("Game")
                    con.Close()
                    Form8.Show()
                    Me.Close()
                End If
            End If
        End If
    End Sub
End Class
```

‘Form9x’

```
Imports System.Data.SqlClient

Public Class Form9x
    Dim con As SqlConnection
    Dim adapt As SqlDataAdapter
    Dim cmd As SqlCommand
    Dim ds As DataSet = New DataSet()
    Dim dt As DataTable
    Dim sql As String

    Dim connect As String = "Data Source=COMPAQ-PC\SQLEXPRESS;Integrated
Security=SSPI;Initial Catalog=TAHPcopy"

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button6.Click
        If IsNumeric(TextBox2.Text) = True And IsNumeric(TextBox3.Text) = True And
IsNumeric(TextBox4.Text) = True And IsNumeric(TextBox5.Text) = True And TextBox1.Text
<> "" Then
            If TextBox2.Text > 0 And TextBox3.Text > 0 And TextBox4.Text > 0 And
TextBox5.Text > 0 Then

                Me.sql = "select count (Nama_Game) FROM Game WHERE Nama_Game like '" +
TextBox1.Text + "'"
                con = New SqlConnection(connect)
                cmd = New SqlCommand(sql, con)
                con.Open()
                Dim cek_nama = Convert.ToString(Me.cmd.ExecuteScalar())
                con.Close()

                If cek_nama > 0 Then
                    MessageBox.Show("Nama tersebut telah terpakai")
                Else

                    Me.sql = "INSERT INTO Game
(Nama_Game,Minimum_Core,Minimum_Clockspeed,Minimum_RAM,Minimum_GPU,Genre) VALUES ('" +
TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" + TextBox4.Text
+ "','" + TextBox5.Text + "','" + ComboBox1.Text + "')"
                    con = New SqlConnection(connect)
                    con.Open()
                    cmd = New SqlCommand(sql, con)
                    Me.adapt = New SqlDataAdapter(sql, con)
                    Me.adapt.Fill(ds, "Game")
                    dt = ds.Tables("Game")
                    con.Close()
                    Form8.Show()
                    Me.Close()
                End If
            End If
        End If
    End Sub

    Private Sub clearproc_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles clearproc.Click
        Form8.Show()
        Me.Close()
    End Sub
```

```
    Private Sub Form5x_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        ComboBox1.SelectedIndex = 0
    End Sub
End Class
```

UNIVERSITAS KRISTEN DUTA WACANA
FAKULTAS TEKNOLOGI INFORMASI
Program Studi Teknik Informatika

KARTU KONSULTASI SKRIPSI

LEMBAR INI DIISI OLEH DOSEN PEMBIMBING 1

Nama Mahasiswa : ADAM JAYA ANGGAWIJAYA
No. Induk Mahasiswa : 22084465
Judul Tugas Akhir : IMPLEMENTASI AHP UNTUK PROGRAM BANTU PENDUKUNG KEPUTUSAN PEMILIHAN GPU, RAM DAN PROCESSOR BERDASARKAN SPESIFIKASI GAME
Dosen Pembimbing I : Dra. WIDI HAPSARI, M.T.

Tanggal : **1**	Tanggal : **4**	Tanggal : **7**
Catatan Perkembangan/Revisi Skripsi : bab 1 - 2 revisi Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : Bab 3 Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : bab 4 Tanda Tangan Dosen
Tanggal : **2**	Tanggal : **5**	Tanggal : **8**
Catatan Perkembangan/Revisi Skripsi : bab 2 revisi Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : bab 3 Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : Tanda Tangan Dosen
Tanggal : **3**	Tanggal : **6**	Tanggal : **9**
Catatan Perkembangan/Revisi Skripsi : bab 2 Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : bab 4 revisi analisis Tanda Tangan Dosen	Catatan Perkembangan/Revisi Skripsi : Tanda Tangan Dosen

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FAKULTAS TEKNOLOGI INFORMASI
Program Studi Teknik Informatika

KARTU KONSULTASI SKRIPSI

LEMBAR INI DIISI OLEH DOSEN PEMBIMBING 2

Nama Mahasiswa : ADAM JAYA ANGGAWIJAYA
No. Induk Mahasiswa : 22084465
Judul Tugas Akhir : IMPLEMENTASI AHP UNTUK PROGRAM BANTU PENDUKUNG KEPUTUSAN PEMILIHAN GPU, RAM DAN PROCESSOR BERDASARKAN SPESIFIKASI GAME
Dosen Pembimbing II : WILLY SUDIARTO RAHARJO, SKom.,M.Cs

1
Tanggal : 18 April 2012
Catatan Perkembangan/Revisi Skripsi :
Bab 1 + 2
Tinjauan pustaka diperbaiki
Referensi belum ada
Batasan masalah terlalu membatasi
Tanda Tangan Dosen : W

2
Tanggal : 25-4-2012
Catatan Perkembangan/Revisi Skripsi :
Bab 2 & 4
Tanda Tangan Dosen : W

3
Tanggal : 8-5-2012
Catatan Perkembangan/Revisi Skripsi :
Bab 3
Kurang DFD
Revisi use case
Tanda Tangan Dosen : W

4
Tanggal : 18-5-2012
Catatan Perkembangan/Revisi Skripsi :
Revisi bab 3
Tanda Tangan Dosen : W

5
Tanggal : 21-5-2012
Catatan Perkembangan/Revisi Skripsi :
Revisi bab 3
DFD masih perlu di perbaiki
Tanda Tangan Dosen : W

6
Tanggal : 22-5-2012
Catatan Perkembangan/Revisi Skripsi :
Revisi DFD 04
Tanda Tangan Dosen : W

7
Tanggal : 28-5-2012
Catatan Perkembangan/Revisi Skripsi :
Revisi bab 4
Analisa AHP belum dimasukkan
Tanda Tangan Dosen :

8
Tanggal : 30-5-2012
Catatan Perkembangan/Revisi Skripsi :
Bab 4+5 04
siap maju pendadaran
Tanda Tangan Dosen :

9
Tanggal :
Catatan Perkembangan/Revisi Skripsi :
Tanda Tangan Dosen :

Universitas Kristen Duta Wacana
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Jl. Dr. Wahidin Sudirahusada 5-25 Yogyakarta 55224
Telp.: (0274)563929 Faks.: (0274)513235

FORMULIR PERBAIKAN (REVISI) TUGAS AKHIR

Dengan ini kami menyatakan bahwa mahasiswa melakukan Tugas Akhir dibawah ini :

Nama Mahasiswa	: Adam Jaya Anggawijaya
NIM	: 22084465
Judul Tugas Akhir	: Implementasi AHP Untuk Program Bantu Pendukung Keputusan Pemilihan GPU, RAM dan Processor Berdasarkan Spesifikasi Game
Tgl. Pendadaran	: 18 Juni 2012
Tgl. Revisi	: 2 Juli 2012

Telah melakukan perbaikan tugas akhir dengan lengkap.
Demikian pernyataan kami agar dapat dipergunakan sebagaimana mestinya.

Yogyakarta 2 Juli 2012

Dosen Pembimbing Tugas Akhir I	Dosen Pembimbing Tugas Akhir II
Dra. Widi Hapsari, M.T.	Willy Sudiarto Raharjo, S.Kom.,M.Cs

Fakultas Teknologi Informasi Program Studi Teknik Informatika
Universitas Kristen Duta Wacana - Yogyakarta

FORMULIR CATATAN REVISI SKRIPSI

Dicetak tanggal: 15-06-2012 10:39:12
(Diisi oleh Ketua Tim Penguji)

Pada hari ini : Senin, 18 Juni 2012

Setelah dilakukan Ujian Skripsi maka dengan ini Ketua Tim Penguji Skripsi menyatakan bahwa mahasiswa tersebut dibawah ini:

Nama Mahasiswa	:	**ADAM JAYA ANGGAWIJAYA**
No. Induk Mahasiswa	:	**22084465**
Judul Skripsi	:	IMPLEMENTASI AHP UNTUK PROGRAM BANTU PENDUKUNG KEPUTUSAN PEMILIHAN GPU, RAM DAN PROCESSOR BERDASARKAN SPESIFIKASI GAME
Dosen Pembimbing I	:	**Dra. WIDI HAPSARI, M.T.**
Dosen Pembimbing II	:	**WILLY SUDIARTO RAHARJO, SKom.,M.Cs**

Memiliki beberapa perubahan/catatan yang harus dilakukan oleh mahasiswa tersebut diatas terkait dengan skripsi yang dikerjakannya:

NO.	CATATAN PERBAIKAN
1	bab 2 : hirarki dituliskan
2	Metode evaluasi & testing dijerjelas
3	Rumus perhitungan dituliskan (bab 4)
4	Analisa & kesimpulan ditambahkan berdasarkan responden.
5	
6	
7	
8	
9	
10	

Perubahan diatas harus sudah diselesaikan paling lambat tanggal : **Rabu, 18 Juli 2012**

Yogyakarta, 18 Juni 2012
Ketua Tim Penguji

Dra. Widi Hapsari, MT

Catatan:

- 1 (satu) lembar untuk mahasiswa
- 1 (satu) lembar untuk arsip