

BAB V

PENUTUP

5.1. Kesimpulan

Dari hasil evaluasi dapat diambil kesimpulan sebagai berikut:

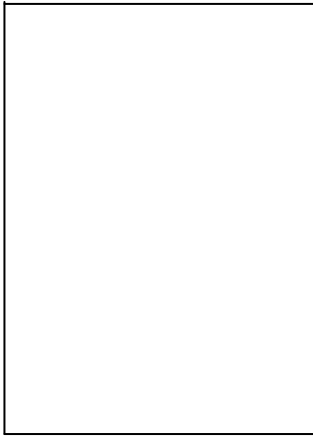
1. Kriteria administrasi yang memiliki nilai bobot prioritas tertinggi, pengaruhnya terhadap suatu alternatif lebih besar dibanding kriteria yang lain, karena nilai bobot prioritas kriteria sangat mempengaruhi nilai bobot prioritas alternatif. Semakin tinggi nilai bobot prioritas suatu kriteria, maka semakin besar pula pengaruhnya terhadap alternatif.
2. Penerapan model pendukung keputusan *Analytic Hierarchy Process* (AHP) dalam program aplikasi ini akan membantu seorang pengambil keputusan untuk menentukan pemohon mana yang didahulukan, karena waktu yang digunakan untuk pengambilan keputusan menjadi lebih cepat dan data yang dihasilkan menjadi lebih akurat.

5.2. Saran

Model pengambilan keputusan *Analytical Hierarchy Process* tidak hanya digunakan dalam permasalahan ini, tapi dapat dikembangkan untuk pengambilan keputusan yang lain, dengan syarat permasalahan tersebut memiliki beberapa alternatif dan beberapa kriteria.

DAFTAR PUSTAKA

- Bambang Permadi S, SE, 1992, "*AHP*", Pusat Antar Universitas – Studi Ekonomi Universitas Indonesia, Jakarta.
- Dadan Umar Dhaini, 2001, *Komputerisasi Pengambilan Keputusan*, PT. Elex Media Komputindo, Jakarta.
- Fathansyah, Ir., 2002, *Basis Data*, CV. Informatika, Bandung.
- Kadarsah Suryadi, Dr. Ir, dan M. Ali Ramdhani, Ir, M.T, 1998, *Sistem Pendukung Keputusan Suatu Wacana Struktural Idealisasi dan Implementasi Konsep Pengambilan Keputusan*, PT. Remaja Rosdakarya, Bandung.
- Kendall, Kenneth E. dan Kendall, Julie E., 2003, *Analisis dan Perancangan Sistem*, Pearson Education Asia Pte. Ltd. dan PT Prenhallindo, Jakarta.
- Thomas L. Saaty, 1993, *Pengambilan Keputusan Bagi Para Pemimpin*, PT. Pustaka Binaman Pressindo, Jakarta.

BIODATA PENULIS

Nama : Bayu Andy Lesmana
Alamat : Griya Kebraon Utara Blok W -
22 Surabaya (60222)
Tempat / Tgl. Lahir : Surabaya, 08 Januari 1980
Telepon : (031) 7666767

Riwayat Pendidikan :

1. SD Negeri Ciujung II - Bandung Lulus Tahun 1992.
2. SMP Negeri 7 - Bandung Lulus Tahun 1995.
3. SMA Negeri 9 - Surabaya Lulus Tahun 1998.
4. STIKOM Program S1 Sistem Informasi - Surabaya Tahun 1998 - Sekarang

Lampiran 1. Data Hasil Survey.

1. Data Pemohon.
2. Nota Dinas Dana Yang Disalurkan.

Lampiran 2. Listing Program.

```

unit mstAltKrt;

interface

uses
  Windows, Messages, SysUtils, Classes, Graphics, Controls, Forms,
  Dialogs,
  jpeg, ExtCtrls, StdCtrls, Grids, DBGrids, Buttons;

type
  TfrmAltKrt = class(TForm)
    Image2: TImage;
    Label1: TLabel;
    Label2: TLabel;
    DBGrid1: TDBGrid;
    Label3: TLabel;
    Label4: TLabel;
    Shape1: TShape;
    Panel1: TPanel;
    Image3: TImage;
    Shape2: TShape;
    Label5: TLabel;
    Kk9: TShape;
    Kk7: TShape;
    Kk5: TShape;
    Kk3: TShape;
    Kk1: TShape;
    Kk2: TShape;
    Kk4: TShape;
    Kk6: TShape;
    Kk8: TShape;
    Kk10: TShape;
    A9: TShape;
    A7: TShape;
    A5: TShape;
    A3: TShape;
    A1: TShape;
    A2: TShape;
    A4: TShape;
    A6: TShape;
    A8: TShape;
    A10: TShape;
    lb9: TLabel;
    lb7: TLabel;
    lb5: TLabel;
    lb3: TLabel;
    lb1: TLabel;
    lb2: TLabel;
    lb4: TLabel;
    lb6: TLabel;
    lb8: TLabel;
    lb10: TLabel;
    Kg99: TShape;
    Shape25: TShape;
    Kg9: TShape;
    Kg77: TShape;
  end;

```

```
Kg7: TShape;  
Kg55: TShape;  
Kg5: TShape;  
Kg33: TShape;  
Kg3: TShape;  
Kg11: TShape;  
Kg1: TShape;  
Kb1: TShape;  
Kg2: TShape;  
Kg22: TShape;  
Kg44: TShape;  
Kg4: TShape;  
Kg66: TShape;  
Kg6: TShape;  
Kg88: TShape;  
Kg8: TShape;  
Kg1010: TShape;  
Kg10: TShape;  
Kb2: TShape;  
Kb3: TShape;  
Kb5: TShape;  
Kb7: TShape;  
Kb9: TShape;  
kbs9: TShape;  
T9: TShape;  
T7: TShape;  
T5: TShape;  
T3: TShape;  
Shape55: TShape;  
Kb4: TShape;  
T4: TShape;  
Kb6: TShape;  
T6: TShape;  
Kb8: TShape;  
T8: TShape;  
Kb10: TShape;  
G9: TShape;  
G7: TShape;  
G5: TShape;  
G3: TShape;  
G1: TShape;  
G2: TShape;  
G4: TShape;  
G6: TShape;  
G8: TShape;  
G10: TShape;  
DBGrid2: TDBGrid;  
DBGrid3: TDBGrid;  
txtKdKtr: TEdit;  
txtNmKtr: TEdit;  
Shape9: TShape;  
Shape3: TShape;  
btnRpt: TSpeedButton;  
Shape4: TShape;  
Shape5: TShape;  
btnInAlt: TSpeedButton;  
Label26: TLabel;  
btnHirarki: TSpeedButton;  
Shape8: TShape;
```

```

Shape10: TShape;
btnTutup: TSpeedButton;
kbs7: TShape;
kbs5: TShape;
kbs3: TShape;
Shape12: TShape;
kbs4: TShape;
kbs6: TShape;
kbs8: TShape;
kbs10: TShape;
L9: TLabel;
L7: TLabel;
L5: TLabel;
L3: TLabel;
L1: TLabel;
L2: TLabel;
L4: TLabel;
L6: TLabel;
L8: TLabel;
L10: TLabel;
T10: TShape;
Shape29: TShape;
Label6: TLabel;
Label7: TLabel;
Label8: TLabel;
Label9: TLabel;
procedure txtKdKtrKeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure txtNmKtrKeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure btnHirarkiClick(Sender: TObject);
procedure FormActivate(Sender: TObject);
procedure btnInAltClick(Sender: TObject);
procedure DBGrid1DbClick(Sender: TObject);
procedure btnTutupClick(Sender: TObject);
procedure DBGrid2DbClick(Sender: TObject);
procedure DBGrid3DbClick(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frmAltKrt: TfrmAltKrt;

implementation
  Uses MasterData;

{$R *.DFM}

procedure TfrmAltKrt.txtKdKtrKeyDown(Sender: TObject; var Key:
Word;
  Shift: TShiftState);
begin
  if key = 13 then begin
    With DataModul do begin
      Query.Close; Query.SQL.Clear;
      Query.SQL.Text := 'Select * from Kriteria Where IdKrt=:Kd';

```

```

        Query.Parameters.ParamByName('Kd').Value := txtKdKtr.Text;
        Query.Open;
        if Query.RecordCount <> 0 then begin
            if Application.MessageBox('Data Sudah Ada, Apakah Akan
Dikoreksi?', 'Konfirmasi', Mb_YesNo+MB_IconQuestion)=IdYes then
begin
                txtNmKtr.Text :=
Query.FieldByName('NmKriteria').AsString;
                txtNmKtr.SetFocus;
            end
        end
        else
            txtNmKtr.SetFocus;
        end
    end
end;

procedure TfrmAltKrt.txtNmKtrKeyDown(Sender: TObject; var Key:
Word;
    Shift: TShiftState);
begin
    if key = 13 then begin
        With DataModul do begin
            if qryKriteria.RecordCount < 10 then begin
                Perintah.CommandText := 'Insert into kriteria(idkrt,nama)
values(:Kd,:Nm)';
                Perintah.Parameters.ParamByName('Kd').Value :=
txtKdKtr.Text;
                Perintah.Parameters.ParamByName('Nm').Value :=
txtNmKtr.Text;
                Perintah.Execute; qryKriteria.Close; qryKriteria.Open;
                btnHirarki.Click;
            end
            else begin
                Application.MessageBox('Kriteria Tidak Boleh Lebih dari
10', 'Peringatan', 0+MB_IconError);
            end;
            txtKdKtr.Text := ''; txtNmKtr.Text := ''; txtKdKtr.SetFocus;
        end
    end
end;
end;

procedure TfrmAltKrt.FormActivate(Sender: TObject);
begin
    btnHirarki.Click;
end;

procedure TfrmAltKrt.btnInAltClick(Sender: TObject);
begin
    With DataModul do begin
        Query.Close; Query.SQL.Clear;
        Query.SQL.Text := 'Select Nomor from Alternatif Where
Nomor=:nm';
        Query.Parameters.ParamByName('nm').Value :=
qryPemohon.FieldByName('Nomor').AsString;
        Query.Open;
        if (qryAlternatif.RecordCount < 10) and (Query.RecordCount=0)
then begin

```



```

        Perintah.CommandText := 'Insert into Alternatif(Nomor)
values(:Nm)';
        Perintah.Parameters.ParamByName('Nm').Value :=
qryPemohon.FieldByName('Nomor').AsString;
        Perintah.Execute; qryAlternatif.Close; qryAlternatif.Open;
        btnHirarki.Click;
        Perintah.CommandText := 'Update Pemohon Set Status=:st Where
Nomor=:nm';
        Perintah.Parameters.ParamByName('St').Value := 'AHP';
        Perintah.Parameters.ParamByName('Nm').Value :=
qryPemohon.FieldByName('Nomor').AsString;
        Perintah.Execute; qryPemohon.Close; qryPemohon.Open;
    end
    else begin
        Application.MessageBox('Alternatif Tidak Boleh Lebih dari 10
atau Data Sudah Ada!', 'Peringatan', 0+MB_IconError);
    end;
end;
end;

procedure TfrmAltKrt.DBGrid1DbClick(Sender: TObject);
begin
    BtnInAlt.Click;
end;

procedure TfrmAltKrt.btnTutupClick(Sender: TObject);
begin
    Close;
end;

procedure TfrmAltKrt.DBGrid2DbClick(Sender: TObject);
begin
    With DataModul do begin
        If Application.MessageBox('Apakah Data Akan Dihapus
?', 'Konfirmasi', MB_YesNo+MB_IconQuestion) = IdYes then begin
            Perintah.CommandText := 'Delete From Kriteria where
IdKrt=:Kd';
            Perintah.Parameters.ParamByName('kd').Value :=
Dbgrid2.Fields[0].AsString;
            Perintah.Execute; qryKriteria.Close; qryKriteria.Open;
        end;
        btnHirarki.Click;
    end
end;

procedure TfrmAltKrt.DBGrid3DbClick(Sender: TObject);
begin
    With DataModul do begin
        If Application.MessageBox('Apakah Data Akan Dihapus
?', 'Konfirmasi', MB_YesNo+MB_IconQuestion) = IdYes then begin
            Perintah.CommandText := 'Delete From Alternatif where
Nomor=:Kd';
            Perintah.Parameters.ParamByName('kd').Value :=
Dbgrid3.Fields[0].AsString;
            Perintah.Execute; qryAlternatif.Close; qryAlternatif.Open;
            Perintah.CommandText := 'Update Pemohon Set Status=:st
Where Nomor=:Kd ';
            Perintah.Parameters.ParamByName('st').Value := 'Pending';

```

```

        Perintah.Parameters.ParamByName('kd').Value :=
Dbgrid3.Fields[0].AsString;
        Perintah.Execute; qryAlternatif.Close; qryAlternatif.Open;
qryPemohon.Close;
        qryPemohon.Open;
        end;
        btnHirarki.Click;
    end
end;

end.

```

```

unit bbtAlt;

```

```

interface

```

```

uses

```

```

    Windows, Messages, SysUtils, Classes, Graphics, Controls, Forms,
    Dialogs,
    StdCtrls, ExtCtrls, Grids, Buttons, jpeg, TeeProcs, TeEngine,
    Chart,
    DBChart, Series, Db, ADODB;

```

```

type

```

```

    Matrik = array[1..10,1..10] of real;
    MatNorm = array[1..10,1..10] of real;
    Jml = array[1..10] of real;
    RataJml = array[1..10] of real;
    TfrmBbtAlt = class(TForm)
        Image3: TImage;
        L1: TLabel;
        L2: TLabel;
        L4: TLabel;
        L3: TLabel;
        L8: TLabel;
        L5: TLabel;
        L10: TLabel;
        L9: TLabel;
        L6: TLabel;
        L7: TLabel;
        K1: TLabel;
        K3: TLabel;
        K2: TLabel;
        K4: TLabel;
        K5: TLabel;
        K11: TLabel;
        K33: TLabel;
        K22: TLabel;
        K44: TLabel;
        K55: TLabel;
        Label1: TLabel;
        L22: TLabel;
        L11: TLabel;
        L44: TLabel;
        L33: TLabel;
        L88: TLabel;
        L55: TLabel;
        L1010: TLabel;
    end;

```

```

L99: TLabel;
L66: TLabel;
L77: TLabel;
K6: TLabel;
K8: TLabel;
K7: TLabel;
K9: TLabel;
K10: TLabel;
K66: TLabel;
K88: TLabel;
K77: TLabel;
K99: TLabel;
K1010: TLabel;
Gkr: TSpeedButton;
Gkn: TSpeedButton;
Label3: TLabel;
Label2: TLabel;
Image2: TImage;
btnNormalisasi: TSpeedButton;
Label4: TLabel;
lbK: TLabel;
Label24: TLabel;
btnKembali: TSpeedButton;
btnTutup: TSpeedButton;
GridMatrik: TStringGrid;
T1: TComboBox;
T2: TComboBox;
T3: TComboBox;
T4: TComboBox;
T5: TComboBox;
T6: TComboBox;
T7: TComboBox;
T8: TComboBox;
T9: TComboBox;
T10: TComboBox;
btnMatrik: TButton;
txtKonst: TEdit;
Label5: TLabel;
btnReset: TButton;
btnTransfer: TButton;
Panel1: TPanel;
StringGrid1: TStringGrid;
QryChAlt: TADOQuery;
SpeedButton1: TSpeedButton;
DBChart1: TDBChart;
Series1: TBarSeries;
SpeedButton2: TSpeedButton;
Image1: TImage;
SpeedButton3: TSpeedButton;
Label6: TLabel;
procedure FormActivate(Sender: TObject);
procedure btnMatrikClick(Sender: TObject);
procedure T2KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure T3KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure T4KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure T5KeyDown(Sender: TObject; var Key: Word;

```

```

        Shift: TShiftState);
    procedure T6KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
    procedure T7KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
    procedure T8KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
    procedure T9KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
    procedure T10KeyDown(Sender: TObject; var Key: Word;
        Shift: TShiftState);
    procedure btnNormalisasiClick(Sender: TObject);
    procedure btnResetClick(Sender: TObject);
    procedure btnTransferClick(Sender: TObject);
    procedure btnTutupClick(Sender: TObject);
    procedure btnKembaliClick(Sender: TObject);
    procedure SpeedButton1Click(Sender: TObject);
    procedure SpeedButton2Click(Sender: TObject);
    procedure SpeedButton3Click(Sender: TObject);
private
    { Private declarations }
public
    { Public declarations }
end;

var
    frmBbtAlt: TfrmBbtAlt;

MATemp, MAAlt1, MAAlt2, MAAlt3, MAAlt4, MAAlt5, MAAlt6, MAAlt7, MAAlt8, MAAlt9, MAAlt10 : Matrik;

MNTemp, MNAlt1, MNAlt2, MNAlt3, MNAlt4, MNAlt5, MNAlt6, MNAlt7, MNAlt8, MNAlt9, MNAlt10 : Matrik;

MPTemp, MPAlt1, MPAlt2, MPAlt3, MPAlt4, MPAlt5, MPAlt6, MPAlt7, MPAlt8, MPAlt9, MPAlt10 : Matrik;

JumlahTemp, Jumlah1, Jumlah2, Jumlah3, Jumlah4, Jumlah5, Jumlah6, Jumlah7, Jumlah8, Jumlah9, Jumlah10 : Jml;

jmlprkTemp, jmlprk1, jmlprk2, jmlprk3, jmlprk4, jmlprk5, jmlprk6, jmlprk7, jmlprk8, jmlprk9, jmlprk10 : Jml;

RataTemp, Rata1, Rata2, Rata3, Rata4, Rata5, Rata6, Rata7, Rata8, Rata9, Rata10 : RataJml;
    Kiri, Kanan, Konter : byte;

implementation

uses MasterData;

{$R *.DFM}

procedure TfrmBbtAlt.FormActivate(Sender: TObject);
var i:byte;
begin
    DataModul.qryKriteria.First; Konter := 1;
    lblk.Caption := inttostr(Konter); DataModul.qryBobotKrt.First;
    btnMatrik.Click; btnReset.Click;

```

```

    T2.Enabled := True; T2.SetFocus;
    Label4.Caption := DataModul.qryKriteria.Fields[1].AsString;
    for i := 1 to DataModul.qryBobotKrt.RecordCount do begin
        StringGrid1.Cells[i,0] :=
DataModul.qryBobotKrt.Fields[0].AsString;
        StringGrid1.Cells[i,1] :=
Format('%.3f', [DataModul.qryBobotKrt.Fields[2].AsFloat]);
        DataModul.qryBobotKrt.Next;
    end;
    DataModul.qryAlternatif.First;
    for i := 2 to DataModul.qryAlternatif.RecordCount +1 do begin
        StringGrid1.Cells[0,i] :=
DataModul.qryAlternatif.Fields[0].AsString;
        DataModul.qryAlternatif.Next;
    end;
end;

procedure TfrmBbtAlt.T2KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if key = 13 then begin
        Kiri := 1; Kanan := 2;
        T3.Enabled := True; T3.SetFocus;
        If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
            MaTemp[Kiri,Kanan] := strtofloat(T2.Text);
            GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
            MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
            GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
        end
        else begin
            MaTemp[Kanan,Kiri] := strtofloat(T2.Text);
            GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
            MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
            GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
        end;
        inc(Kanan);
        GKn.Top := GKn.Top + 24;
    end
end;

procedure TfrmBbtAlt.T3KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        T4.Enabled := True; T4.SetFocus;
        If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
            MaTemp[Kiri,Kanan] := strtofloat(T3.Text);
            GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
            MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];

```

```

        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T3.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(Kanan); GKn.Top := GKn.Top + 24;
end;
end;

procedure TfrmBbtAlt.T4KeyDown(Sender: TObject; var Key: Word;
Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryAlternatif do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
Kebalikannya?','Konfirmasi',Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T4.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
                    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
                end
                else begin
                    MaTemp[Kanan,Kiri] := strtofloat(T4.Text);
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
                    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
                end;
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; GKn.Top := 127;
                end
                else begin
                    GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
                    if Kiri <> RecordCount - 1 then begin
                        T3.Enabled := True; T3.SetFocus;
                    end
                    else T4.SetFocus;
                end;
            end
        else begin
            T5.Enabled := True; T5.Visible := True; T5.SetFocus;
            If Application.MessageBox('Apakah
Kebalikannya?','Konfirmasi',Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                MaTemp[Kiri,Kanan] := strtofloat(T4.Text);

```

```

        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T4.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;

procedure TfrmBbtAlt.T5KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T5.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
                    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
                end
                else begin
                    MaTemp[Kanan,Kiri] := strtofloat(T5.Text);
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
                    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
                end;
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; Gkn.Top := 127;
                end
                else begin
                    GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
                    if Kiri <> RecordCount - 1 then begin
                        Case Kiri of
                            2 : Begin
                                T3.Enabled := True; T3.SetFocus;
                                End;
                            3 : Begin
                                T4.Enabled := True; T4.SetFocus;
                                End;

```

```

        end
        end
        else T5.SetFocus;
    end;
end
else begin
    T6.Enabled := True; T6.Visible := True; T6.SetFocus;
    If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
        MaTemp[Kiri,Kanan] := strtofloat(T5.Text);
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T5.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
    end;
    inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;

procedure TfrmBbtAlt.T6KeyDown(Sender: TObject; var Key: Word;
Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T6.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
                    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
                end
                else begin
                    MaTemp[Kanan,Kiri] := strtofloat(T6.Text);
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
                    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
                end;
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; Gkn.Top := 127;
                end;
            end;
        end;
    end;
end;

```



```

end
else begin
  GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
  if Kiri <> RecordCount - 1 then begin
    Case Kiri of
      2 : Begin
        T3.Enabled := True; T3.SetFocus;
      End;
      3 : Begin
        T4.Enabled := True; T4.SetFocus;
      End;
      4 : Begin
        T5.Enabled := True; T5.SetFocus;
      End;
    end
  end
  end
  else T6.SetFocus;
end;
end
else begin
  T7.Enabled := True; T7.Visible := True; T7.SetFocus;
  If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
    MaTemp[Kiri,Kanan] := strtofloat(T6.Text);
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
  end
  else begin
    MaTemp[Kanan,Kiri] := strtofloat(T6.Text);
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
  end;
  inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;
end;

procedure TfrmBbtAlt.T7KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
begin
  if Key = 13 then begin
    With DataModul.qryKriteria do begin
      if Kanan=RecordCount then begin
        If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
          MaTemp[Kiri,Kanan] := strtofloat(T7.Text);
          GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
          MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];

```

```

        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T7.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(kiri); Kanan := Kiri + 1;
    if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
        Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
        Gkr.Top := 103; Gkn.Top := 127;
    end
    else begin
        Gkr.Top := Gkr.Top + 24; Gkn.Top := Gkr.Top + 24;
        if Kiri <> RecordCount - 1 then begin
            Case Kiri of
                2 : Begin
                    T3.Enabled := True; T3.SetFocus;
                End;
                3 : Begin
                    T4.Enabled := True; T4.SetFocus;
                End;
                4 : Begin
                    T5.Enabled := True; T5.SetFocus;
                End;
                5 : Begin
                    T6.Enabled := True; T6.SetFocus;
                End;
            end
        end
        else T7.SetFocus;
    end;
end
else begin
    T8.Enabled := True; T8.Visible := True; T8.SetFocus;
    If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
        MaTemp[Kiri,Kanan] := strtofloat(T7.Text);
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T7.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(Kanan); Gkn.Top := Gkn.Top + 24
end
end

```

```

        end
    end;
end;

procedure TfrmBbtAlt.T8KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
                Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
                )=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T8.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
                    Format('%.3f', [MaTemp[Kiri,Kanan]]);
                    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
                    GridMatrik.Cells[Kanan,Kiri] :=
                    Format('%.3f', [MaTemp[Kanan,Kiri]]);
                end
                else begin
                    MaTemp[Kanan,Kiri] := strtofloat(T8.Text);
                    GridMatrik.Cells[Kanan,Kiri] :=
                    Format('%.3f', [MaTemp[Kanan,Kiri]]);
                    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
                    GridMatrik.Cells[Kiri,Kanan] :=
                    Format('%.3f', [MaTemp[Kiri,Kanan]]);
                end;
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; GKn.Top := 127;
                end
                else begin
                    GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
                    if Kiri <> RecordCount - 1 then begin
                        Case Kiri of
                            2 : Begin
                                T3.Enabled := True; T3.SetFocus;
                                End;
                            3 : Begin
                                T4.Enabled := True; T4.SetFocus;
                                End;
                            4 : Begin
                                T5.Enabled := True; T5.SetFocus;
                                End;
                            5 : Begin
                                T6.Enabled := True; T6.SetFocus;
                                End;
                            6 : Begin
                                T7.Enabled := True; T7.SetFocus;
                                End;
                        end
                    end
                    else T8.SetFocus;
                end;
            end
        else begin
            T9.Enabled := True; T9.Visible := True; T9.SetFocus;
        end
    end
end;

```

```

If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
    MaTemp[Kiri,Kanan] := strtofloat(T8.Text);
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
end
else begin
    MaTemp[Kanan,Kiri] := strtofloat(T8.Text);
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
end;
inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;

procedure TfrmBbtAlt.T9KeyDown(Sender: TObject; var Key: Word;
Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T9.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
                    MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
end
                else begin
                    MaTemp[Kanan,Kiri] := strtofloat(T9.Text);
                    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f', [MaTemp[Kanan,Kiri]]);
                    MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f', [MaTemp[Kiri,Kanan]]);
end;
inc(kiri); Kanan := Kiri + 1;
if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
    GKr.Top := 103; GKn.Top := 127;
end
else begin
    GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
    if Kiri <> RecordCount - 1 then begin
        Case Kiri of
            2 : Begin
                T3.Enabled := True; T3.SetFocus;

```

```

        End;
    3 : Begin
        T4.Enabled := True; T4.SetFocus;
    End;
    4 : Begin
        T5.Enabled := True; T5.SetFocus;
    End;
    5 : Begin
        T6.Enabled := True; T6.SetFocus;
    End;
    6 : Begin
        T7.Enabled := True; T7.SetFocus;
    End;
    7 : Begin
        T8.Enabled := True; T8.SetFocus;
    End;
    end
    end
    else T9.SetFocus;
end;
end
else begin
    T10.Enabled := True; T10.Visible := True; T10.SetFocus;
    If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
        MaTemp[Kiri,Kanan] := strtofloat(T9.Text);
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T9.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(Kanan); GKKn.Top := GKKn.Top + 24
end
end
end;
end;

procedure TfrmBbtAlt.T10KeyDown(Sender: TObject; var Key: Word;
Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                If Application.MessageBox('Apakah
Kembalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
                    MaTemp[Kiri,Kanan] := strtofloat(T10.Text);
                    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);

```

```

        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
    else begin
        MaTemp[Kanan,Kiri] := strtofloat(T10.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
        MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
    end;
    inc(kiri); Kanan := Kiri + 1;
    if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
        Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
        GKr.Top := 103; GKn.Top := 127;
    end
    else begin
        GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
        if Kiri <> RecordCount - 1 then begin
            Case Kiri of
                2 : Begin
                    T3.Enabled := True; T3.SetFocus;
                    End;
                3 : Begin
                    T4.Enabled := True; T4.SetFocus;
                    End;
                4 : Begin
                    T5.Enabled := True; T5.SetFocus;
                    End;
                5 : Begin
                    T6.Enabled := True; T6.SetFocus;
                    End;
                6 : Begin
                    T7.Enabled := True; T7.SetFocus;
                    End;
                7 : Begin
                    T8.Enabled := True; T8.SetFocus;
                    End;
                8 : Begin
                    T9.Enabled := True; T9.SetFocus;
                    End;
            end
        end
        else T10.SetFocus;
    end;
end
else begin
    T10.Enabled := True; T10.Visible := True; T10.SetFocus;
    If Application.MessageBox('Apakah
Kebalikannya?', 'Konfirmasi', Mb_YesNo+MB_Iconquestion+MB_DefButton2
)=IdYes then begin
        MaTemp[Kiri,Kanan] := strtofloat(T10.Text);
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
        MaTemp[Kanan,Kiri] := 1 / MaTemp[Kiri,Kanan];
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
    end
end

```

```

        else begin
            MaTemp[Kanan,Kiri] := strtofloat(T10.Text);
            GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[MaTemp[Kanan,Kiri]]);
            MaTemp[Kiri,Kanan] := 1 / MaTemp[Kanan,Kiri];
            GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[MaTemp[Kiri,Kanan]]);
        end;
        inc(Kanan); GKn.Top := GKn.Top + 24
    end
end
end;
end;
end;

procedure TfrmBbtAlt.btnNormalisasiClick(Sender: TObject);
Var i,j : byte;
    tmp,tmp1,ik,rk : real;
begin
    With DataModul.qryAlternatif do begin
        // Jumlah Kolom Matrik Awal
        for i := 1 to RecordCount do begin
            tmp1 := 0;
            for j := 1 to RecordCount do begin
                tmp := MaTemp[i,j];
                tmp1 := tmp1 + tmp;
                JumlahTemp[i] := tmp1;
            end
        end;
        // Isi Matrik Normalisasi
        for i := 1 to RecordCount do begin
            for j := 1 to RecordCount do begin
                MNTemp[i,j] := MaTemp[i,j] / jumlahTemp[i];
                GridMatrik.Cells[i,j] := Format('%.3f',[MNTemp[i,j]]);
            end
        end;
        GridMatrik.ColCount := GridMatrik.ColCount + 1;
        GridMatrik.Cols[RecordCount+1].Text := 'PRIORITAS';
        GridMatrik.ColWidths[RecordCount+1] := 60;
        DataModul.qryBobotKrt.First;
        for i := 1 to RecordCount do begin
            tmp1 := 0;
            for j := 1 to RecordCount do begin
                tmp := MNTemp[j,i];
                tmp1 := tmp1 + tmp;
                RataTemp[i] := tmp1/RecordCount;
                MNTemp[RecordCount+1,i] := RataTemp[i];
                GridMatrik.Cells[RecordCount+1,i] :=
Format('%.3f',[MNTemp[RecordCount+1,i]]);
            end;
            StringGrid1.Cells[Konter,i+1] :=
Format('%.3f',[MNTemp[RecordCount+1,i]*strtofloat(StringGrid1.Cells[Konter,1])]);
        end;
        for i := 1 to RecordCount do begin
            tmp1 := 0;
            for j := 1 to RecordCount do begin
                MpTemp[i,j] := MaTemp[i,j] * RataTemp[i];
            end
        end;
    end;
end;

```

```

for i := 1 to RecordCount do begin
    tmp1:=0;
    for j := 1 to RecordCount do begin
        tmp := MpTemp[j,i];
        tmp1 := tmp1 + tmp;
    end;
    JmlPrkTemp[i] := tmp1;
    MpTemp[RecordCount+1,i] := tmp1;
end;
tmp1:=0;
For i := 1 to RecordCount do begin
    tmp := JmlPrkTemp[i] / RataTemp[i];
    tmp1 := tmp1 + tmp;
end;
ik := ((tmp1/RecordCount) - RecordCount) / (RecordCount -
1);
Case RecordCount of
    2 : rk := ik / 0.00;
    3 : rk := ik / 0.58;
    4 : rk := ik / 0.90;
    5 : rk := ik / 1.12;
    6 : rk := ik / 1.24;
    7 : rk := ik / 1.32;
    8 : rk := ik / 1.41;
    9 : rk := ik / 1.45;
    10 : rk := ik / 1.49;
end;
txtKonst.Text := Format('%.3f',[rk]);
if Konter = DataModul.gryKriteria.RecordCount then begin
    if (rk <= 0.1) and (rk >= 0) then begin
        If Application.MessageBox('Matrik Tersebut Konsisten,
Lanjutkan ?', 'Konfirmasi', MB_YesNo+MB_IconQuestion)=IDYes then
        begin
            btnTransfer.Click; btnReset.Click;
DataModul.gryKriteria.Next;
            Label4.Caption :=
DataModul.gryKriteria.Fields[1].AsString;
            inc(Konter); DataModul.gryBobotKrt.next; lblk.Caption
:= inttostr(konter);
            Panel1.Show;
            StringGrid1.ColCount := RecordCount + 2;
            StringGrid1.RowCount :=
DataModul.gryAlternatif.RecordCount + 2;
            StringGrid1.Cells[RecordCount+1,0] := 'Prioritas';
            StringGrid1.Cells[RecordCount+1,1] := 'Global';
            for i := 2 to DataModul.gryAlternatif.RecordCount+1 do
begin
                tmp1:=0;
                for j := 1 to RecordCount do begin
                    tmp := StrtoFloat(StringGrid1.Cells[j,i]);
                    tmp1 := tmp1 + tmp;
                end;
                StringGrid1.Cells[RecordCount+1,i] :=
Format('%.3f',[tmp1]);
                With DataModul do begin
                    Perintah.CommandText := 'Update Alternatif Set
Bobot=:bbt Where '+'
                    'Nomor=:nm';

```



```

        Perintah.Parameters.ParamByName('bbt').Value :=
StrtoFloat(StringGrid1.Cells[RecordCount+1,i]);
        Perintah.Parameters.ParamByName('nm').Value :=
StringGrid1.Cells[0,i];
        Perintah.execute; qryBbtAltr.Close;
qryBbtAltr.Open;
        end;
        end;
        QryChAlt.Active := True;
        end
        else btnReset.Click
        end
        else begin
            Application.MessageBox('Matrik Tersebut Tidak Konsisten
!', 'Gagal', 0+Mb_IconError);
            btnReset.Click;
        end;
        end
        else begin
            if (rk <= 0.1) and (rk >= 0) then begin
                If Application.MessageBox('Matrik Tersebut Konsisten,
Lanjutkan ?', 'Konfirmasi', MB_YesNo+MB_IconQuestion)=IDYes then
begin
                    {For i := 1 to DataModul.qryAlternatif.RecordCount do
begin
                        DataModul.Perintah.CommandText := 'Insert into Ahp
values(
                            end;}
                        btnTransfer.Click; btnReset.Click;
DataModul.qryKriteria.Next;
                        Label4.Caption :=
DataModul.qryKriteria.Fields[1].AsString;
                        inc(Konter); DataModul.qryBobotKrt.next; lblk.Caption
:= inttostr(konter);
                        end
                        else btnReset.Click;
                        end
                        else begin
                            Application.MessageBox('Matrik Tersebut Tidak Konsisten
!', 'Gagal', 0+Mb_IconError);
                            btnReset.Click;
                        end;
                        end;
                        if Konter > 1 then btnKembali.Enabled := True
                        else btnKembali.Enabled := False;
                    end;
                end;
            end;

procedure TfrmBbtAlt.btnResetClick(Sender: TObject);
var i,j : byte;
begin
    With DataModul.qryAlternatif do begin
        First; i := 1; GridMatrik.ColCount := RecordCount + 1;
        GridMatrik.RowCount := RecordCount + 1;
        While not eof do begin
            GridMatrik.Cols[i].Text := Copy(Fields[0].AsString,1,6);
            GridMatrik.Rows[i].Text := Copy(Fields[0].AsString,1,6);
            Next; inc(i);
        end;
    end;
end;

```

```

For i := 1 to RecordCount do begin
  For J := 1 to RecordCount do begin
    MATemp[i,j]:=0;
    GridMatrik.Cells[i,j] := Format('%.3f',[MaTemp[i,j]]);
    if i = j then begin
      MaTemp[i,j] := 1;
      GridMatrik.Cells[i,j] := Format('%.3f',[MaTemp[i,j]]);
    end;
  end
end;
T2.SetFocus;
end;
end;

```

```

procedure TfrmBbtAlt.btnTransferClick(Sender: TObject);

```

```

var i,j:byte;

```

```

begin

```

```

  With DataModul.qryAlternatif do begin

```

```

    for i := 1 to RecordCount do begin

```

```

      for j := 1 to RecordCount do begin

```

```

        Case Konter of

```

```

          1 : begin

```

```

            MAAlt1[i,j]:=MaTemp[i,j];

```

```

            MNAlt1[i,j]:=MNTemp[i,j];

```

```

            MPAlt1[i,j]:=MPTemp[i,j];

```

```

            Jumlah1[i]:=JumlahTemp[i];

```

```

            JmlPrk1[i]:=JmlPrkTemp[i];

```

```

            Rata1[i]:=RataTemp[i];

```

```

          end;

```

```

          2 : begin

```

```

            MAAlt2[i,j]:=MaTemp[i,j];

```

```

            MNAlt2[i,j]:=MnTemp[i,j];

```

```

            MPAlt2[i,j]:=MpTemp[i,j];

```

```

            Jumlah2[i]:=JumlahTemp[i];

```

```

            JmlPrk2[i]:=JmlPrkTemp[i];

```

```

            Rata2[i]:=RataTemp[i];

```

```

          end;

```

```

          3 : begin

```

```

            MAAlt3[i,j]:=MaTemp[i,j];

```

```

            MNAlt3[i,j]:=MnTemp[i,j];

```

```

            MPAlt3[i,j]:=MpTemp[i,j];

```

```

            Jumlah3[i]:=JumlahTemp[i];

```

```

            JmlPrk3[i]:=JmlPrkTemp[i];

```

```

            Rata3[i]:=RataTemp[i];

```

```

          end;

```

```

          4 : begin

```

```

            MAAlt4[i,j]:=MaTemp[i,j];

```

```

            MNAlt4[i,j]:=MnTemp[i,j];

```

```

            MPAlt4[i,j]:=MpTemp[i,j];

```

```

            Jumlah4[i]:=JumlahTemp[i];

```

```

            JmlPrk4[i]:=JmlPrkTemp[i];

```

```

            Rata4[i]:=RataTemp[i];

```

```

          end;

```

```

          5 : begin

```

```

            MAAlt5[i,j]:=MaTemp[i,j];

```

```

            MNAlt5[i,j]:=MnTemp[i,j];

```

```

            MPAlt5[i,j]:=MpTemp[i,j];

```

```

            Jumlah5[i]:=JumlahTemp[i];

```

```

            JmlPrk5[i]:=JmlPrkTemp[i];

```

```

        Rata5[i]:=RataTemp[i];
    end;
6 : begin
    MAAlt6[i,j]:=MaTemp[i,j];
    MNAlt6[i,j]:=MnTemp[i,j];
    MPAlt6[i,j]:=MpTemp[i,j];
    Jumlah6[i]:=JumlahTemp[i];
    JmlPrk6[i]:=JmlPrkTemp[i];
    Rata6[i]:=RataTemp[i];
end;
7 : begin
    MAAlt7[i,j]:=MaTemp[i,j];
    MNAlt7[i,j]:=MnTemp[i,j];
    MPAlt7[i,j]:=MpTemp[i,j];
    Jumlah7[i]:=JumlahTemp[i];
    JmlPrk7[i]:=JmlPrkTemp[i];
    Rata7[i]:=RataTemp[i];
end;
8 : begin
    MAAlt8[i,j]:=MaTemp[i,j];
    MNAlt8[i,j]:=MnTemp[i,j];
    MPAlt8[i,j]:=MpTemp[i,j];
    Jumlah8[i]:=JumlahTemp[i];
    JmlPrk8[i]:=JmlPrkTemp[i];
    Rata8[i]:=RataTemp[i];
end;
9 : begin
    MAAlt9[i,j]:=MaTemp[i,j];
    MNAlt9[i,j]:=MnTemp[i,j];
    MPAlt9[i,j]:=MpTemp[i,j];
    Jumlah9[i]:=JumlahTemp[i];
    JmlPrk9[i]:=JmlPrkTemp[i];
    Rata9[i]:=RataTemp[i];
end;
10 : begin
    MAAlt10[i,j]:=MaTemp[i,j];
    MNAlt10[i,j]:=MnTemp[i,j];
    MPAlt10[i,j]:=MpTemp[i,j];
    Jumlah10[i]:=JumlahTemp[i];
    JmlPrk10[i]:=JmlPrkTemp[i];
    Rata10[i]:=RataTemp[i];
end;
end;
end
end
end;

procedure TfrmBbtAlt.btnTutupClick(Sender: TObject);
begin
    Close;
end;

procedure TfrmBbtAlt.btnKembaliClick(Sender: TObject);
var i,j : Byte;
begin
    Dec(Konter); lbk.Caption := inttostr(Konter);
    DataModul.qryKriteria.Prior; DataModul.qryBobotKrt.Prior;
    Label4.Caption := DataModul.qryKriteria.Fields[1].AsString;

```

```

With DataModul.qryAlternatif do begin
  for i := 1 to RecordCount do begin
    for j := 1 to RecordCount do begin
      Case Konter of
        1 : begin
          MaTemp[i,j] := MAAlt1[i,j];
          MnTemp[i,j] := MNAlt1[i,j];
          MpTemp[i,j] := MPAlt1[i,j];
          JumlahTemp[i] := Jumlah1[i];
          JmlPrkTemp[i] := JmlPrk1[i];
          RataTemp[i] := Rata1[i];
          btnKembali.Enabled := False;
        end;
        2 : begin
          MaTemp[i,j] := MAAlt2[i,j];
          MnTemp[i,j] := MNAlt2[i,j];
          MpTemp[i,j] := MPAlt2[i,j];
          JumlahTemp[i] := Jumlah2[i];
          JmlPrkTemp[i] := JmlPrk2[i];
          RataTemp[i] := Rata2[i];
        end;
        3 : begin
          MaTemp[i,j] := MAAlt3[i,j];
          MnTemp[i,j] := MNAlt3[i,j];
          MpTemp[i,j] := MPAlt3[i,j];
          JumlahTemp[i] := Jumlah3[i];
          JmlPrkTemp[i] := JmlPrk3[i];
          RataTemp[i] := Rata3[i];
        end;
        4 : begin
          MaTemp[i,j] := MAAlt4[i,j];
          MnTemp[i,j] := MNAlt4[i,j];
          MpTemp[i,j] := MPAlt4[i,j];
          JumlahTemp[i] := Jumlah4[i];
          JmlPrkTemp[i] := JmlPrk4[i];
          RataTemp[i] := Rata4[i];
        end;
        5 : begin
          MaTemp[i,j] := MAAlt5[i,j];
          MnTemp[i,j] := MNAlt5[i,j];
          MpTemp[i,j] := MPAlt5[i,j];
          JumlahTemp[i] := Jumlah5[i];
          JmlPrkTemp[i] := JmlPrk5[i];
          RataTemp[i] := Rata5[i];
        end;
        6 : begin
          MaTemp[i,j] := MAAlt6[i,j];
          MnTemp[i,j] := MNAlt6[i,j];
          MpTemp[i,j] := MPAlt6[i,j];
          JumlahTemp[i] := Jumlah6[i];
          JmlPrkTemp[i] := JmlPrk6[i];
          RataTemp[i] := Rata6[i];
        end;
        7 : begin
          MaTemp[i,j] := MAAlt7[i,j];
          MnTemp[i,j] := MNAlt7[i,j];
          MpTemp[i,j] := MPAlt7[i,j];
          JumlahTemp[i] := Jumlah7[i];
          JmlPrkTemp[i] := JmlPrk7[i];

```

```

        RataTemp[i] := Rata7[i];
    end;
8 : begin
    MaTemp[i,j] := MAAlt8[i,j];
    MnTemp[i,j] := MNAlt8[i,j];
    MpTemp[i,j] := MPAlt8[i,j];
    JumlahTemp[i] := Jumlah8[i];
    JmlPrkTemp[i] := JmlPrk8[i];
    RataTemp[i] := Rata8[i];
end;
9 : begin
    MaTemp[i,j] := MAAlt9[i,j];
    MnTemp[i,j] := MNAlt9[i,j];
    MpTemp[i,j] := MPAlt9[i,j];
    JumlahTemp[i] := Jumlah9[i];
    JmlPrkTemp[i] := JmlPrk9[i];
    RataTemp[i] := Rata9[i];
end;
10 : begin
    MaTemp[i,j] := MAAlt10[i,j];
    MnTemp[i,j] := MNAlt10[i,j];
    MpTemp[i,j] := MPAlt10[i,j];
    JumlahTemp[i] := Jumlah10[i];
    JmlPrkTemp[i] := JmlPrk10[i];
    RataTemp[i] := Rata10[i];
end;
end;
GridMatrik.Cells[i,j] := Format('%.3f',[MaTemp[i,j]]);
end
end
end;

procedure TfrmBbtAlt.SpeedButton1Click(Sender: TObject);
begin
    Panel1.Hide;
end;

procedure TfrmBbtAlt.SpeedButton2Click(Sender: TObject);
begin
    DBChart1.Hide; QryChAlt.Close;
end;

procedure TfrmBbtAlt.SpeedButton3Click(Sender: TObject);
begin
    qryChAlt.Close; qryChAlt.Open; DBChart1.Show;
end;

end.

unit bbtKtr;

interface

uses
    Windows, Messages, SysUtils, Classes, Graphics, Controls, Forms,
    Dialogs,

```

```

    Grids, StdCtrls, ExtCtrls, Buttons, jpeg, ComCtrls, TeeProcs,
TeEngine,
    Chart, DBChart, Series, Db, ADODB;

```

```

type
    Matrik = array[1..10,1..10] of real;
    MatNorm = array[1..10,1..10] of real;
    Jml = array[1..10] of real;
    RataJml = array[1..10] of real;
    TfrmBbtKtr = class(TForm)
        GridMatrik: TStringGrid;
        L1: TLabel;
        L2: TLabel;
        L4: TLabel;
        L3: TLabel;
        L8: TLabel;
        L5: TLabel;
        L10: TLabel;
        L9: TLabel;
        L6: TLabel;
        L7: TLabel;
        K1: TLabel;
        K3: TLabel;
        K2: TLabel;
        K4: TLabel;
        K5: TLabel;
        K11: TLabel;
        K33: TLabel;
        K22: TLabel;
        K44: TLabel;
        K55: TLabel;
        Label1: TLabel;
        T1: TComboBox;
        T2: TComboBox;
        T3: TComboBox;
        T4: TComboBox;
        T5: TComboBox;
        T6: TComboBox;
        T7: TComboBox;
        T8: TComboBox;
        T9: TComboBox;
        T10: TComboBox;
        L22: TLabel;
        L11: TLabel;
        L44: TLabel;
        L33: TLabel;
        L88: TLabel;
        L55: TLabel;
        L1010: TLabel;
        L99: TLabel;
        L66: TLabel;
        L77: TLabel;
        K6: TLabel;
        K8: TLabel;
        K7: TLabel;
        K9: TLabel;
        K10: TLabel;
        K66: TLabel;
        K88: TLabel;
    end;

```

```

K77: TLabel;
K99: TLabel;
K1010: TLabel;
btnMatrik: TButton;
Gkr: TSpeedButton;
Gkn: TSpeedButton;
Label2: TLabel;
Label3: TLabel;
Image2: TImage;
btnNormalisasi: TSpeedButton;
Label4: TLabel;
lbK: TLabel;
Panel1: TPanel;
Label5: TLabel;
StringGrid1: TStringGrid;
StringGrid2: TStringGrid;
StringGrid3: TStringGrid;
Label6: TLabel;
Label7: TLabel;
Edit1: TEdit;
Label8: TLabel;
lbIk: TLabel;
lbJml: TLabel;
Label11: TLabel;
lbN: TLabel;
Label13: TLabel;
Label14: TLabel;
Label15: TLabel;
lbNN: TLabel;
Label17: TLabel;
lbNNN: TLabel;
Label19: TLabel;
Label20: TLabel;
Label21: TLabel;
Label22: TLabel;
lbRk: TLabel;
lbLk1: TLabel;
Label12: TLabel;
lbIr: TLabel;
Label9: TLabel;
Label10: TLabel;
Label16: TLabel;
Label18: TLabel;
Image1: TImage;
Label23: TLabel;
Image3: TImage;
Label24: TLabel;
btnKembali: TSpeedButton;
btnTutup: TSpeedButton;
DBChart1: TDBChart;
Series1: TBarSeries;
SpeedButton2: TSpeedButton;
SpeedButton1: TSpeedButton;
procedure FormActivate(Sender: TObject);
procedure btnMatrikClick(Sender: TObject);
procedure T2KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
procedure T3KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);

```

```

    procedure T4KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T5KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T6KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T7KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T8KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T9KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure T10KeyDown(Sender: TObject; var Key: Word;
      Shift: TShiftState);
    procedure btnNormalisasiClick(Sender: TObject);
    procedure btnKembaliClick(Sender: TObject);
    procedure btnTutupClick(Sender: TObject);
    procedure SpeedButton1Click(Sender: TObject);
    procedure SpeedButton2Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  frmBbtKtr: TfrmBbtKtr;
  MAwal, MPrk : Matrik;
  MNorm : MatNorm;
  Jumlah, jMLpRK : Jml;
  Rata : RataJml;
  Kiri,Kanan : byte;

implementation
  Uses MasterData;
  {$R *.DFM}

  procedure TfrmBbtKtr.FormActivate(Sender: TObject);
  var i,j : integer;
  begin
    With DataModul.qryKriteria do begin
      First; i := 1; GridMatrik.ColCount := RecordCount + 1;
      GridMatrik.RowCount := RecordCount + 1;
      While not eof do begin
        GridMatrik.Cols[i].Text := Fields[0].AsString;
        GridMatrik.Rows[i].Text := Fields[0].AsString;
        Next; inc(i);
      end;
      //GridMatrik.Cols[i].Text := 'B O B O T';
      //GridMatrik.ColWidths[i] := 60;
      For i := 1 to RecordCount do begin
        For J := 1 to RecordCount do begin
          Mawal[i,j]:=0;
          GridMatrik.Cells[i,j] := Format('%.3f',[Mawal[i,j]]);
          if i = j then begin
            Mawal[i,j] := 1;
            GridMatrik.Cells[i,j] := Format('%.3f',[Mawal[i,j]]);
          end;
        end;
      end
    end
  end

```



```

        end;
    end;
    btnMatrik.Click; T2.Show;
    T2.Enabled := True; T2.SetFocus;
end;

```

```

procedure TfrmBbtKtr.T2KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if key = 13 then begin
        Kiri := 1;
        Kanan := 2;
        T3.Enabled := True; T3.SetFocus;
        Mawal[Kanan,Kiri] := strtofloat(T2.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(Kanan);
        GKn.Top := GKn.Top + 24;
    end
end;

```

```

procedure TfrmBbtKtr.T3KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        T4.Enabled := True; T4.SetFocus;
        Mawal[Kanan,Kiri] := strtofloat(T3.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(Kanan); GKn.Top := GKn.Top + 24;
    end;
end;

```

```

procedure TfrmBbtKtr.T4KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                Mawal[Kanan,Kiri] := strtofloat(T4.Text);
                GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
                Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
                GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; GKn.Top := 127;
                end
            else begin
                GKr.Top := Gkr.Top + 24; GKn.Top := Gkr.Top + 24;
            end
        end
    end;
end;

```

```

        if Kiri <> RecordCount - 1 then begin
            T3.Enabled := True; T3.SetFocus;
        end
        else T4.SetFocus;
    end;
end
else begin
    T5.Enabled := True; T5.Visible := True; T5.SetFocus;
    Mawal[Kanan,Kiri] := strtofloat(T4.Text);
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
    Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
    inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;

procedure TfrmBbtKtr.T5KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                Mawal[Kanan,Kiri] := strtofloat(T5.Text);
                GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
                Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
                GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; GKn.Top := 127;
                end
            end
            else begin
                GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
                if Kiri <> RecordCount - 1 then begin
                    Case Kiri of
                        2 : Begin
                            T3.Enabled := True; T3.SetFocus;
                        End;
                        3 : Begin
                            T4.Enabled := True; T4.SetFocus;
                        End;
                    end
                end
                else T5.SetFocus;
            end;
        end
    end
    else begin
        T6.Enabled := True; T6.Visible := True; T6.SetFocus;
        Mawal[Kanan,Kiri] := strtofloat(T5.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
    end
end
end

```

```

        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(Kanan); GKn.Top := GKn.Top + 24
    end
end
end;
end;

procedure TfrmBbtKtr.T6KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                Mawal[Kanan,Kiri] := strtofloat(T6.Text);
                GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
                Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
                GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
                    Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
                    GKr.Top := 103; Gkn.Top := 127;
                end
            else begin
                GKr.Top := Gkr.Top + 24; GKn.Top := Gkr.Top + 24;
                if Kiri <> RecordCount - 1 then begin
                    Case Kiri of
                        2 : Begin
                            T3.Enabled := True; T3.SetFocus;
                        End;
                        3 : Begin
                            T4.Enabled := True; T4.SetFocus;
                        End;
                        4 : Begin
                            T5.Enabled := True; T5.SetFocus;
                        End;
                    end
                end
            else T6.SetFocus;
            end;
        end
    else begin
        T7.Enabled := True; T7.Visible := True; T7.SetFocus;
        Mawal[Kanan,Kiri] := strtofloat(T6.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(Kanan); GKn.Top := GKn.Top + 24
    end
end
end;
end;

procedure TfrmBbtKtr.T7KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);

```

```

begin
  if Key = 13 then begin
    With DataModul.gryKriteria do begin
      if Kanan=RecordCount then begin
        Mawal[Kanan,Kiri] := strtofloat(T7.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(kiri); Kanan := Kiri + 1;
        if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
          Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
          GKr.Top := 103; GKn.Top := 127;
        end
      end
    else begin
      GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
      if Kiri <> RecordCount - 1 then begin
        Case Kiri of
          2 : Begin
            T3.Enabled := True; T3.SetFocus;
          End;
          3 : Begin
            T4.Enabled := True; T4.SetFocus;
          End;
          4 : Begin
            T5.Enabled := True; T5.SetFocus;
          End;
          5 : Begin
            T6.Enabled := True; T6.SetFocus;
          End;
        end
      end
    else T7.SetFocus;
    end;
  end
else begin
  T8.Enabled := True; T8.Visible := True; T8.SetFocus;
  Mawal[Kanan,Kiri] := strtofloat(T7.Text);
  GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
  Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
  GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
  inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;

procedure TfrmBbtKtr.T8KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
begin
  if Key = 13 then begin
    With DataModul.gryKriteria do begin
      if Kanan=RecordCount then begin
        Mawal[Kanan,Kiri] := strtofloat(T8.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);

```

```

        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(kiri); Kanan := Kiri + 1;
        if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
            Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
            GKr.Top := 103; GKn.Top := 127;
        end
        else begin
            GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
            if Kiri <> RecordCount - 1 then begin
                Case Kiri of
                    2 : Begin
                        T3.Enabled := True; T3.SetFocus;
                        End;
                    3 : Begin
                        T4.Enabled := True; T4.SetFocus;
                        End;
                    4 : Begin
                        T5.Enabled := True; T5.SetFocus;
                        End;
                    5 : Begin
                        T6.Enabled := True; T6.SetFocus;
                        End;
                    6 : Begin
                        T7.Enabled := True; T7.SetFocus;
                        End;
                end
            end
            else T8.SetFocus;
        end;
    end
    else begin
        T9.Enabled := True; T9.Visible := True; T9.SetFocus;
        Mawal[Kanan,Kiri] := strtofloat(T8.Text);
        GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
        Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
        GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
        inc(Kanan); GKn.Top := GKn.Top + 24
    end
end
end;
end;
end;

```

```

procedure TfrmBbtKtr.T9KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                Mawal[Kanan,Kiri] := strtofloat(T9.Text);
                GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
                Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
                GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
                inc(kiri); Kanan := Kiri + 1;
            end
        end
    end
end;

```

```

    if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin
        Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
        GKr.Top := 103; GKn.Top := 127;
    end
    else begin
        GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
        if Kiri <> RecordCount - 1 then begin
            Case Kiri of
                2 : Begin
                    T3.Enabled := True; T3.SetFocus;
                End;
                3 : Begin
                    T4.Enabled := True; T4.SetFocus;
                End;
                4 : Begin
                    T5.Enabled := True; T5.SetFocus;
                End;
                5 : Begin
                    T6.Enabled := True; T6.SetFocus;
                End;
                6 : Begin
                    T7.Enabled := True; T7.SetFocus;
                End;
                7 : Begin
                    T8.Enabled := True; T8.SetFocus;
                End;
            end
        end
        else T9.SetFocus;
    end;
end
else begin
    T10.Enabled := True; T10.Visible := True; T10.SetFocus;
    Mawal[Kanan,Kiri] := strtofloat(T9.Text);
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
    Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
    inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;
end;

procedure TfrmBbtKtr.T10KeyDown(Sender: TObject; var Key: Word;
    Shift: TShiftState);
begin
    if Key = 13 then begin
        With DataModul.qryKriteria do begin
            if Kanan=RecordCount then begin
                Mawal[Kanan,Kiri] := strtofloat(T10.Text);
                GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
                Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
                GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
                inc(kiri); Kanan := Kiri + 1;
                if (Kiri=RecordCount) and (Kanan=RecordCount+1) then begin

```

```

        Kiri := 1; Kanan := 2; T2.Enabled := True; T2.SetFocus;
        GKr.Top := 103; GKn.Top := 127;
    end
    else begin
        GKr.Top := GKr.Top + 24; GKn.Top := GKr.Top + 24;
        if Kiri <> RecordCount - 1 then begin
            Case Kiri of
                2 : Begin
                    T3.Enabled := True; T3.SetFocus;
                    End;
                3 : Begin
                    T4.Enabled := True; T4.SetFocus;
                    End;
                4 : Begin
                    T5.Enabled := True; T5.SetFocus;
                    End;
                5 : Begin
                    T6.Enabled := True; T6.SetFocus;
                    End;
                6 : Begin
                    T7.Enabled := True; T7.SetFocus;
                    End;
                7 : Begin
                    T8.Enabled := True; T8.SetFocus;
                    End;
                8 : Begin
                    T9.Enabled := True; T9.SetFocus;
                    End;
            end
        end
        else T10.SetFocus;
    end;
end
else begin
    T10.Enabled := True; T10.Visible := True; T10.SetFocus;
    Mawal[Kanan,Kiri] := strtofloat(T9.Text);
    GridMatrik.Cells[Kanan,Kiri] :=
Format('%.3f',[Mawal[Kanan,Kiri]]);
    Mawal[Kiri,Kanan] := 1 / Mawal[Kanan,Kiri];
    GridMatrik.Cells[Kiri,Kanan] :=
Format('%.3f',[Mawal[Kiri,Kanan]]);
    inc(Kanan); GKn.Top := GKn.Top + 24
end
end
end;
end;
end;

procedure TfrmBbtKtr.btnNormalisasiClick(Sender: TObject);
Var i,j : byte;
    tmp,tmp1,ik,rk : real;
begin
    With DataModul.gryKriteria do begin
        // Jumlah Kolom Matrik Awal
        if lbK.Caption = '1' then begin
            for i := 1 to RecordCount do begin
                tmp1 := 0;
                for j := 1 to RecordCount do begin
                    tmp := Mawal[i,j];
                    tmp1 := tmp1 + tmp;

```

```

        Jumlah[i] := tmp1;
    end
end;
// Isi Matrik Normalisasi
for i := 1 to RecordCount do begin
    for j := 1 to RecordCount do begin
        MNorm[i,j] := Mawal[i,j] / jumlah[i];
        GridMatrik.Cells[i,j] := Format('%.3f', [MNorm[i,j]]);
    end
end;
GridMatrik.ColCount := GridMatrik.ColCount + 1;
GridMatrik.Cols[RecordCount+1].Text := 'PRIORITAS';
GridMatrik.ColWidths[RecordCount+1] := 60;
for i := 1 to RecordCount do begin
    tmp1 := 0;
    for j := 1 to RecordCount do begin
        tmp := MNorm[j,i];
        tmp1 := tmp1 + tmp;
        Rata[i] := tmp1/RecordCount;
        MNorm[RecordCount+1,i] := Rata[i];
        GridMatrik.Cells[RecordCount+1,i] :=
Format('%.3f', [MNorm[RecordCount+1,i]]);
    end;
    With DataModul do begin
        Perintah.CommandText := 'Update kriteria set bobot=:bbt
where idkrt=:id';
        Perintah.Parameters.ParamByName('id').Value :=
GridMatrik.Cells[0,i];
        Perintah.Parameters.ParamByName('bbt').Value :=
strtofloat(GridMatrik.Cells[RecordCount+1,i]);
        Perintah.Execute; qryBobotKrt.Close; qryBobotKrt.Open;
    end
end;
Label4.Caption := 'Matrik Normalisasi'; Lbk.Caption := '2';
btnKembali.Enabled := True;
end
else if Lbk.Caption = '2' then begin
    for i := 1 to RecordCount do begin
        tmp1 := 0;
        for j := 1 to RecordCount do begin
            //tmp := Mawal[i,j] * Rata[j];
            //tmp1 := tmp1 + tmp;
            Mprk[i,j] := Mawal[i,j] * Rata[i];
            GridMatrik.Cells[i,j] := Format('%.3f', [Mprk[i,j]]);
        end
    end;
    GridMatrik.Cols[RecordCount+1].Text := 'JUMLAH';
    for i := 1 to RecordCount do begin
        tmp1:=0;
        for j := 1 to RecordCount do begin
            tmp := Mprk[j,i];
            tmp1 := tmp1 + tmp;
        end;
        JmlPrk[i] := tmp1;
        Mprk[RecordCount+1,i] := tmp1;
        GridMatrik.Cells[RecordCount+1,i] :=
Format('%.3f', [Mprk[RecordCount+1,i]]);
    end;
    Label4.Caption := 'Matrik Perkalian';
end

```



```

    Lbk.Caption := '3';
end
else begin
    Panel1.Visible := True; btnNormalisasi.Enabled := False;
    StringGrid1.RowCount := RecordCount;
    StringGrid2.RowCount := RecordCount;
    StringGrid3.RowCount := RecordCount;
    tmp1:=0;
    For i := 0 to RecordCount-1 do begin
        StringGrid1.Cells[0,i] := Format('%.3f',[JmlPrk[i+1]]);
        StringGrid2.Cells[0,i] := Format('%.3f',[Rata[i+1]]);
        StringGrid3.Cells[0,i] := Format('%.3f',[JmlPrk[i+1] /
Rata[i+1]]);
        tmp := JmlPrk[i+1] / Rata[i+1];
        tmp1 := tmp1 + tmp;
    end;
    edit1.Text := Format('%.3f',[tmp1]);
    lbJml.Caption := Format('%.3f',[tmp1]);
    lbN.Caption := inttostr(RecordCount);
    lbNN.Caption := inttostr(RecordCount);
    lbNNN.Caption := inttostr(RecordCount);
    ik := ((tmp1/RecordCount) - RecordCount) / (RecordCount -
1);
    lbIk.Caption := Format('%.3f',[ik]);
    Case RecordCount of
        2 : Begin
            rk := ik / 0.00;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;
            lbIr.Caption := '0.00';
        end;
        3 : Begin
            rk := ik / 0.58;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;
            lbIr.Caption := '0.58';
        end;
        4 : Begin
            rk := ik / 0.90;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;
            lbIr.Caption := '0.90';
        end;
        5 : Begin
            rk := ik / 1.12;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;
            lbIr.Caption := '1.12';
        end;
        6 : Begin
            rk := ik / 1.24;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;
            lbIr.Caption := '1.24';
        end;
        7 : Begin
            rk := ik / 1.32;
            lbRk.Caption := Format('%.3f',[rk]);
            lbLk1.Caption := lbik.Caption;

```

```

        lbIr.Caption := '1.32';
    end;
8 : Begin
    rk := ik / 1.41;
    lbRk.Caption := Format('%.3f',[rk]);
    lbLk1.Caption := lbik.Caption;
    lbIr.Caption := '1.41';
end;
9 : Begin
    rk := ik / 1.45;
    lbRk.Caption := Format('%.3f',[rk]);
    lbLk1.Caption := lbik.Caption;
    lbIr.Caption := '1.45';
end;
10 : Begin
    rk := ik / 1.49;
    lbRk.Caption := Format('%.3f',[rk]);
    lbLk1.Caption := lbik.Caption;
    lbIr.Caption := '1.49';
end;
end;
if rk <= 0.1 then begin
    With DataModul do begin
        For i := 1 to RecordCount do begin
            Perintah.CommandText := 'update kriteria set
status=:st where idkrt=:id';
            Perintah.Parameters.ParamByName('st').Value := 'OK';
            Perintah.Parameters.ParamByName('id').Value :=
GridMatrik.Cells[0,i];
            Perintah.Execute;
        end
    end;
    Application.MessageBox('Matrik Telah Konsisten, Silahkan
Ke Menu Input Bobot Alternatif','Keterangan',0);
end else begin
    With DataModul do begin
        For i := 1 to RecordCount do begin
            Perintah.CommandText := 'update kriteria set
status=:st where idkrt=:id';
            Perintah.Parameters.ParamByName('st').Value :=
'SIAGA';
            Perintah.Parameters.ParamByName('id').Value :=
GridMatrik.Cells[0,i];
            Perintah.Execute;
        end
    end;
    Application.MessageBox('Matrik Tidak Konsisten, Silahkan
Isi Kembali Bobot Kriteria','Kesalahan',0+MB_IconError);
end
end
end;
end;

procedure TfrmBbtKtr.btnKembaliClick(Sender: TObject);
var i,j : byte;
begin
    With DataModul.qryKriteria do begin
        if lbk.Caption = '2' then begin
            lbK.Caption := '1'; btnKembali.Enabled := False;

```

```

Label4.Caption := 'Matrik Awal';
GridMatrik.ColCount := GridMatrik.ColCount - 1;
For i := 1 to RecordCount do begin
    for j := 1 to RecordCount do begin
        GridMatrik.Cells[i,j] := Format('%.3f',[Mawal[i,j]]);
    end;
end;
end;
if lbk.Caption = '3' then begin
    lbk.Caption := '2';
    Label4.Caption := 'Matrik Normalisasi';
    GridMatrik.Cols[RecordCount+1].Text := 'PRIORITAS';
    For i := 1 to RecordCount+1 do begin
        for j := 1 to RecordCount+1 do begin
            GridMatrik.Cells[i,j] := Format('%.3f',[MNorm[i,j]]);
        end;
    end;
end;
if Panel1.Visible = true then begin
    Panel1.Hide; btnNormalisasi.Enabled := True;
    Label4.Caption := 'Matrik Perkalian';
    GridMatrik.Cols[RecordCount+1].Text := 'JUMLAH';
    For i := 1 to RecordCount+1 do begin
        for j := 1 to RecordCount+1 do begin
            GridMatrik.Cells[i,j] := Format('%.3f',[Mprk[i,j]]);
        end;
    end;
    lbk.Caption := '3';
end;
end;
end;

procedure TfrmBbtKtr.btnTutupClick(Sender: TObject);
begin
    Close;
end;

procedure TfrmBbtKtr.SpeedButton1Click(Sender: TObject);
begin
    DBChart1.Show;
end;

procedure TfrmBbtKtr.SpeedButton2Click(Sender: TObject);
begin
    DBChart1.Hide;
end;

end.

```