```
unit Vr1U;              {GP2006 Vraestel Y Memorandum Vraag 1}

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, ComCtrls, Buttons;

type
  TKlientRek = record
    Titel : string[3];
    Voorl : string[4];
    Van   : string[30];
    Saldo : double;
  end;

  TfrmVraag1 = class(TForm)
    btnVertoonData: TButton;
    btnSorteer: TButton;
    btnSkepTeks: TButton;
    btnVertoonTeks: TButton;
    redAfvoer: TRichEdit;
    GroupBox1: TGroupBox;
    GroupBox2: TGroupBox;
    bmbClose: TBitBtn;
    procedure btnVertoonDataClick(Sender: TObject);
    procedure btnSorteerClick(Sender: TObject);
    procedure btnSkepTeksClick(Sender: TObject);
    procedure btnVertoonTeksClick(Sender: TObject);
    procedure FormActivate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  frmVraag1 : TfrmVraag1;
  Dataleer  : file of TKlientRek;
  Teksleer  : TextFile;

implementation

{$R *.dfm}

procedure TfrmVraag1.btnVertoonDataClick(Sender: TObject);
var
  Persoon : TKlientRek;
begin
  Assignfile(Dataleer,'c:\gp2006\DCresta.dat');
  reset(Dataleer);
  redAfvoer.Clear;
  redAfvoer.Lines.Add('Titel' + #9 + 'Voorl' + #9 + 'Van' + #9 + 'Saldo');
  while not eof(Dataleer) do
  begin
    read(Dataleer,Persoon);
    with Persoon do
      redAfvoer.Lines.Add(Titel + #9 + Voorl + #9 + Van + #9 + 'R' +
                          Format('%8.2f',[Saldo]));
  end;
  CloseFile(Dataleer);
end;
```

Names ✓
Captions ✓ (2)

+ tabs

(13)

```
procedure TfrmVraag1.btnSorteerClick(Sender: TObject);
var
  arrKlient : array[1..20] of TKlientRek;
  I,J,iTel  : integer;
  Temp      : TKlientRek;
begin
  Assignfile(Dataleer,'c:\gp2006\DCresta.dat');
  reset(Dataleer);
  iTel := 0;
  while not eof(Dataleer) do
  begin
    inc(iTel);
    read(Dataleer,arrKlient[iTel]);
  end;
  CloseFile(Dataleer);
  for I := 1 to iTel - 1 do
    for J := I + 1 to iTel do
      if (arrKlient[J].Saldo> arrKlient[I].Saldo) then
      begin
        Temp         := arrKlient[I];
        arrKlient[I] := arrKlient[J];
        arrKlient[J] := Temp
      end;
  rewrite(Dataleer);
  for I := 1 to iTel do
    write(Dataleer,arrKlient[I]);
  CloseFile(Dataleer);
end;

procedure TfrmVraag1.btnSkepTeksClick(Sender: TObject);
var
  iTel     : integer;
  Persoon  : TKlientRek;
begin
  Assignfile(Dataleer,'c:\gp2006\DMenlyn.dat');
  AssignFile(Teksleer,'c:\gp2006\skuld.txt');
  reset(Dataleer);
  rewrite(Teksleer);
  iTel := 0;
  while not eof(Dataleer) do
  begin
    read(Dataleer,Persoon);
    if (Persoon.Saldo > 0)then
    begin
      inc(iTel);
      with Persoon do
        writeln(Teksleer,Titel + ',' + Voorl + ',' + Van + ',' +
                FloatToStrF(Saldo,ffFixed,8,2));
    end;
  end;
  CloseFile(Teksleer);
  CloseFile(Dataleer);
  MessageDlg(IntToStr(iTel) + ' kliënte na lêer geskryf.',mtInformation,
             [mbOK],0);
end;

procedure TfrmVraag1.btnVertoonTeksClick(Sender: TObject);
var
  Lyn : string;
begin
  AssignFile(Teksleer,'c:\gp2006\skuld.txt');
  if FileExists('c:\gp2006\skuld.txt') then
  begin
    reset(Teksleer);
    redAfvoer.Clear;
    While not eof(Teksleer) do
    begin
      readln(Teksleer,Lyn);
      redAfvoer.Lines.Add(Lyn);
    end;
    CloseFile(Teksleer);
  end
  else
    MessageDlg('Lêer bestaan nie!',mtWarning,[mbOK],0);
end;
```

(16)

(15)

(7)

```
procedure TfrmVraag1.FormActivate(Sender: TObject);
begin
  with redAfvoer do
  begin
    Paragraph.TabCount := 3;
    Paragraph.Tab[0]   := 50;
    Paragraph.Tab[1]   := 100;
    Paragraph.Tab[2]   := 200;
    Font.Name          := 'Courier new';
  end;
end;

end.
```

gemeh saam met #9

[53]

```
unit Vr2U;          {GP2006 Vraestel Y Memorandum Vraag 2}

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, ExtCtrls;

type
  TfrmVraag2 = class(TForm)
    edtNaam: TEdit;
    Label1: TLabel;
    btnGenereer: TButton;
    Label3: TLabel;
    pnlWagwoord: TPanel;
    procedure btnGenereerClick(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  frmVraag2: TfrmVraag2;

implementation

{$R *.dfm}

function TitelKas(_String : string):string;
var
  I : integer;
begin
  _String[1] := upcase(_String[1]);
  for I := 2 to length(_String) do
  begin
    if (_String[I] = #32) then
      _String[I + 1] := upcase(_String[I + 1]);
  end;
  TitelKas := _String;
end;

procedure KryWagwoord(_Naam : string ; var WWoord_ : string);
var
  LangString : string;
  NuString : string;
  Kar3,Kar13,Kar19 : char;
  I : integer;
begin
  LangString := '';
  repeat
    LangString := LangString + _Naam;
  until (length(LangString) > 19);
  Kar3  := LangString[3];
  Kar13 := LangString[13];
  Kar19 := LangString[19];
  NuString := IntToStr(ord(Kar3)) + IntToStr(ord(Kar13)) + IntToStr(ord(Kar19));
  WWoord_ := '';
  for I := 1 to length(NuString) do
    if (NuString[I] <> '0') then
      WWoord_ := WWoord_ + chr(StrToInt(NuString[I]) + 64);
end;

procedure TfrmVraag2.btnGenereerClick(Sender: TObject);
var
  sTKNaam,Wagwoord : string;
begin
  sTKNaam := TitelKas(edtNaam.Text);
  KryWagWoord(sTKNaam,Wagwoord);
  pnlWagwoord.Caption := Wagwoord;
end;

end.
```

(1) (8) (16) (3)

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```
unit Vr3U;            {GP2006 Vraestel Y Memorandum Vraag 3}

interface

uses
  Windows, Messages, SysUtils, {Variants,} Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Buttons, Grids, ExtCtrls;

type
  T2DSkik = array[1..10,1..15] of boolean;

  TfrmVraag3 = class(TForm)
    btnPlaas: TButton;
    btnSkiet: TButton;
    btnWys: TButton;
    Label1: TLabel;
    Label2: TLabel;
    edtRy: TEdit;
    edtKolom: TEdit;
    bmbClose: TBitBtn;
    pnlWys: TPanel;
    sgdSkepe: TStringGrid;
    bmbOK: TBitBtn;
    procedure btnPlaasClick(Sender: TObject);
    procedure FormActivate(Sender: TObject);
    procedure btnSkietClick(Sender: TObject);
    procedure btnWysClick(Sender: TObject);
    procedure bmbOKClick(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  frmVraag3: TfrmVraag3;
  Matriks : T2DSkik;

implementation

{$R *.dfm}

procedure InitSkik;
var
  R,K : integer;
begin
  for R := 1 to 10 do
    for K := 1 to 15 do
      Matriks[R,K] := False;
end;

procedure TfrmVraag3.btnPlaasClick(Sender: TObject);
var
  I,K : integer;
  BeginRy,BeginKol : integer;
begin
  InitSkik;
  for I := 1 to 3 do
  begin
    BeginRy  := Random(10) + 1;
    BeginKol := Random(12) + 1; {Moet kan inpas in 15 plekke}
    for K := BeginKol to BeginKol + 3 do
      Matriks[BeginRy,K] := True; {Plaas 4-Skip in ry}
  end;
  btnWys.Enabled := true;
  btnSkiet.Enabled := true;
end;

procedure TfrmVraag3.bmbOKClick(Sender: TObject);
begin
  pnlWys.Visible := false;
end;
```

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```
procedure TfrmVraag3.btnSkietClick(Sender: TObject);
var
  Ry,Kolom : integer;
begin
  Ry := StrToInt(edtRy.Text);
  Kolom := StrToInt(edtKolom.Text);
  if (Matriks[Ry,Kolom] = True) then
    MessageDlg('Dit was raak!',mtInformation,[mbOK],0)
  else
    MessageDlg('Dit was mis!',mtInformation,[mbOK],0);
end;

procedure TfrmVraag3.btnWysClick(Sender: TObject);
var
  Row, Col :integer;
begin
  pnlWys.Visible := True;
  for Col := 1 to 15 do
    sgdSkepe.Cells[Col,0] := IntToStr(Col);
  for Row := 1 to 10 do
  begin
    frmVraag3.sgdSkepe.Cells[0,Row] := IntToStr(Row);
    for Col := 1 to 15 do
      if Matriks[Row, Col] = true then
        sgdSkepe.Cells[Col, Row] := '#';
  end;
end;

procedure TfrmVraag3.FormActivate(Sender: TObject);
begin
  Randomize;
end;

end.
```

(3)

(6)