
C:\Users\edward\Dropbox\Edward&Johan - Delphi\Rekord 2013\D7 DATA\D7Q2\Question2TripleTTyresU.pas

```

unit Question2TripleTTyresU;

interface

uses
  TTyreUnit, TConUnit, Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, DB, ADODB, Grids, DBGrids, ExtCtrls, Buttons,
  ComCtrls, DBCtrls, jpeg ;

type
  TfrmOOPQuestion = class(TForm)
    pnlMain: TPanel;
    dbgTyreStock: TDBGrid;
    Panel2: TPanel;
    DSADO_tblStock: TDataSource;
    BitBtn1: TBitBtn;
    Image1: TImage;
    DBNav: TDBNavigator;
    redOutput: TRichEdit;
    Label1: TLabel;
    btnHeavy: TButton;
    btnCountDunlop: TButton;
    ADOQuery1: TADOQuery;
    procedure FormShow(Sender: TObject);
    procedure FormCreate(Sender: TObject);
    procedure btnHeavyClick(Sender: TObject);
    procedure btnCountDunlopClick(Sender: TObject);
    procedure DBNavClick(Sender: TObject; Button: TNavigateBtn);

  private
    { Private declarations }

  public
    { Public declarations }

    myConverterObj : TConverter;    // 1
    myTyreObj : TTyre;              // 1
  end;

var
  frmOOPQuestion: TfrmOOPQuestion;

implementation

{$R *.dfm}

procedure TfrmOOPQuestion.btnCountDunlopClick(Sender: TObject);
var
  iCount : Integer;    // 1
begin
  ADOQuery1.Close;
  ADOQuery1.SQL.Text := 'select * from TyreStockDetails where brand = "Dunlop"';
  ADOQuery1.Open;
  ShowMessage('There are ' + IntToStr(ADOQuery1.RecordCount) + ' different Dunlop tires'); // 1
}

ADOQuery1.First;    // 1
icount := 0;
while not ADOQuery1.Eof do // 1
begin
  if (ADOQuery1.Fields.FieldName('Brand').Text = 'Dunlop') then // 1
  begin
    inc(iCount); // 1
  end;
  ADOQuery1.Next; // 1
end;
ShowMessage('There are ' + IntToStr(iCount) + ' different Dunlop tires'); // 1
end;

procedure TfrmOOPQuestion.btnHeavyClick(Sender: TObject);
begin
  ADOQuery1.Sort := 'weight DESC'; // 1
  ADOQuery1.First;
  ShowMessage('The heaviest Tyre is the ' +
    ADOQuery1.Fields.FieldName('Brand').Text +
    ' ' +
    ADOQuery1.Fields.FieldName('SizeCode').Text) ; // 2

end;

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procedure TfrmOOPQuestion.FormCreate(Sender: TObject);
begin
    myConverterObj := TConverter.create; // 2
    myTyreObj := TTyre.create; // 2
end;

procedure TfrmOOPQuestion.FormShow(Sender: TObject);
begin
    // Given Code
    DBNav.VisibleButtons := [nbFirst,nbPrior,nbNext,nbLast];
    dbgTyreStock.Columns[0].Width := 35;
    dbgTyreStock.Columns[1].Width := 80;
    dbgTyreStock.Columns[2].Width := 60;
    dbgTyreStock.Columns[4].Width := 60;
    dbgTyreStock.Columns[5].Width := 50;
    dbgTyreStock.Columns[6].Width := 40;
end;

procedure TfrmOOPQuestion.DBNavClick(Sender: TObject;
    Button: TNavigateBtn);
begin
    // Given Code: Die kode wat hier volg plaas reeds die huidige rekord se info in
    //die myTyreObj
    myTyreObj.setData( ADOQuery1.Fields.Fieldbyname('ID').text,
        ADOQuery1.Fields.Fieldbyname('Brand').Text,
        ADOQuery1.Fields.Fieldbyname('Model').Text,
        ADOQuery1.Fields.Fieldbyname('SizeCode').Text,
        ADOQuery1.Fields.Fieldbyname('Type').Text,
        ADOQuery1.Fields.Fieldbyname('Diameter').AsFloat,
        ADOQuery1.Fields.Fieldbyname('TW').AsFloat,
        ADOQuery1.Fields.Fieldbyname('Weight').AsFloat,
        ADOQuery1.Fields.Fieldbyname('WheelWidths').Text,
        ADOQuery1.Fields.FieldByName('D').AsBoolean,
        ADOQuery1.Fields.Fieldbyname('A').AsBoolean
    );
    // code after this line
    // -----

    redOutput.Lines.Clear; // 1
    redOutput.Lines.Add(myTyreObj.toStr); // 1
    redOutput.Lines.Add(myTyreObj.getTreadWearDesc); // 1

    redOutput.Lines.Add('Tire Width: (mm) ' + FloatToStrF(myTyreObj.getTireWidth,ffFixed, 8,0)); // 2
    redOutput.Lines.Add('Tire relative height: (mm) ' + FloatToStrF(myTyreObj.getRelTireHeight, ffFixed, 8,0)); // 2

    myConverterObj.setInchVal(ADOQuery1.Fields.Fieldbyname('Diameter').AsFloat); // 2
    redOutput.Lines.Add('Tire Rimsizes: (cm) ' + FloatToStrF(myConverterObj.getMillimetreVal/10,ffFixed, 8,0)); // 2

    myConverterObj.setPoundsVal(ADOQuery1.Fields.Fieldbyname('Weight').AsFloat); // 1
    redOutput.Lines.Add('Tire Weight: (kg"s) ' + FloatToStrF(myConverterObj.getKgVal,ffFixed, 8,1)); // 2

end;

end.

```