**ECC407 Programming languages II**

**Assignment1.**

**Questions:**

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**Note:** **Please write program and show the steps for each questions, write all the program in word and send me in Microsoft word file**

**1. (10 points).** Using Main menu component create menu that will include the following operations:

File (name of the buttons: open, new, save, print, exit). Write program for each of the following buttons:

**1)** When Open button will be clicked the caption of the form will be change to ‘Near East University’.

**2)** New button is clicked; form caption will be change to ‘Faculty of Engineering’,

**3)** Save is clicked, form caption will be change to April 21.2022

**4)** Print is clicked, form caption will be displayed today’s date.

**5)** Exit is clicked, edit1 text. Will be displayed local time.

**Solution1:**

First we need to add Main Menu component to our form and then we need to change main button caption to “File”. Then we need to insert sub buttons to our main button “File”.Then we need to change each sub buttons’ caption to “Open”, ”New”, ”Save”, ”Print”, ”Exit” accordingly. After that we need to add edit to our form. Then we will double click to each sub buttons and write the code to reach our goal.

**Full Code:**

unit Unit1;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

Dialogs, StdCtrls, Menus;

type

TForm1 = class(TForm)

MainMenu1: TMainMenu;

File1: TMenuItem;

Open1: TMenuItem;

New1: TMenuItem;

Save1: TMenuItem;

Print1: TMenuItem;

Exit1: TMenuItem;

Edit1: TEdit;

procedure Open1Click(Sender: TObject);

procedure New1Click(Sender: TObject);

procedure Save1Click(Sender: TObject);

procedure Print1Click(Sender: TObject);

procedure Exit1Click(Sender: TObject);

procedure File1Click(Sender: TObject);

private

{ Private declarations }

public

{ Public declarations }

end;

var

Form1: TForm1;

implementation

{$R \*.dfm}

procedure TForm1.Open1Click(Sender: TObject);

begin

Form1.Caption:='Near East University'

end;

procedure TForm1.New1Click(Sender: TObject);

begin

Form1.Caption:='Faculty of Engineering'

end;

procedure TForm1.Save1Click(Sender: TObject);

begin

Form1.caption:='April 21.2022';

end;

procedure TForm1.Print1Click(Sender: TObject);

var currentdate:TDateTime;

begin

currentdate:=Now;

Form1.caption:=DateToStr(currentdate);

end;

procedure TForm1.Exit1Click(Sender: TObject);

var localtime:TDateTime;

begin

localtime:=Now;

edit1.Text:=TimeToStr(localtime);

end;

procedure TForm1.File1Click(Sender: TObject);

begin

end;

end.

**2. (10 points).**Using Radiogrup component write program that will change font color and shape of the shape

component as follows:

when first button of the Radiogroup will clicked, memo1 text will be change to Hello Delphi

when second button of the Radiogroup will clicked, memo1 text will be change to ECC407

when third button of the Radiogroup will clicked, memo1 text will be change to your name surname

and student number

**Solution2:**

First thing we should do is we need to add a radio group to our form and then we need to add 3 radio button in to our radio group. Then we need to add a memo in to our form. Then we need to double click to each radio button and write code to reach our goal.

**Full code:**

unit Unit1;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

Dialogs, StdCtrls, ExtCtrls;

type

TForm1 = class(TForm)

RadioGroup1: TRadioGroup;

RadioButton1: TRadioButton;

RadioButton2: TRadioButton;

RadioButton3: TRadioButton;

Memo1: TMemo;

procedure RadioButton2Click(Sender: TObject);

procedure RadioButton1Click(Sender: TObject);

procedure RadioButton3Click(Sender: TObject);

private

{ Private declarations }

public

{ Public declarations }

end;

var

Form1: TForm1;

implementation

{$R \*.dfm}

procedure TForm1.RadioButton2Click(Sender: TObject);

begin

memo1.text:='ECC407'

end;

procedure TForm1.RadioButton1Click(Sender: TObject);

begin

memo1.Text:='Hello Delphi';

end;

procedure TForm1.RadioButton3Click(Sender: TObject);

begin

memo1.Text:='Mehmet Ali Çolakoğlu 20172135'

end;

end.

**3. (10 points).** Change properties of the component on mouse move mode as follows: **(u**se three shape)

When you move the mouse on the first shape color will be green and shape will be circle,

When on the second shape color will be yellow and shape will be circle,

When on the third shape color will be red and shape will be circle.

**Solution3:**

First step is on Additional section we need to take 3 shape and bring it in to our form.

Then for each shape we will come to Events section and double click OnMouseMove event and write code to reach our goals.

**Full Code:**

unit Unit1;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

Dialogs, ExtCtrls;

type

TForm1 = class(TForm)

Shape1: TShape;

Shape2: TShape;

Shape3: TShape;

procedure Shape1MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

procedure Shape2MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

procedure Shape3MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

private

{ Private declarations }

public

{ Public declarations }

end;

var

Form1: TForm1;

implementation

{$R \*.dfm}

procedure TForm1.Shape1MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

begin

Shape1.brush.Color:=clgreen;

Shape1.shape:=stCircle;

end;

procedure TForm1.Shape2MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

begin

Shape2.brush.Color:=clyellow;

Shape2.Shape:=stCircle;

end;

procedure TForm1.Shape3MouseMove(Sender: TObject; Shift: TShiftState; X,

Y: Integer);

begin

Shape3.Brush.color:=clred;

Shape3.Shape:=stCircle;

end;

end.

**Note: Use Lecture 1, 2, 3**

**You can write only Program and give small explanation (such as steps ) for each solution**

**Good Luck.**