Department of Computer Science & Engineering, SDMCET, Dharwad-2

AOOP Assignment Submission Report

[Submitted as part of CTA Assignment No-2]

Course:	Advanced Object-Oriented Programming	Course Code:	18UCSE508
Semester:	V	Division:	A

Submitted by:

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1. Problem Definition:

Q1.Write a Java program to build the GUI application using JavaFX for the following requirements:

a) Read user name and password using appropriate JavaFX controls.

b) Validate the input. If user name and password are matched with the assumed values, then

display the welcome scene with proper text.

c) If username and password don't match, then raise appropriate exception.

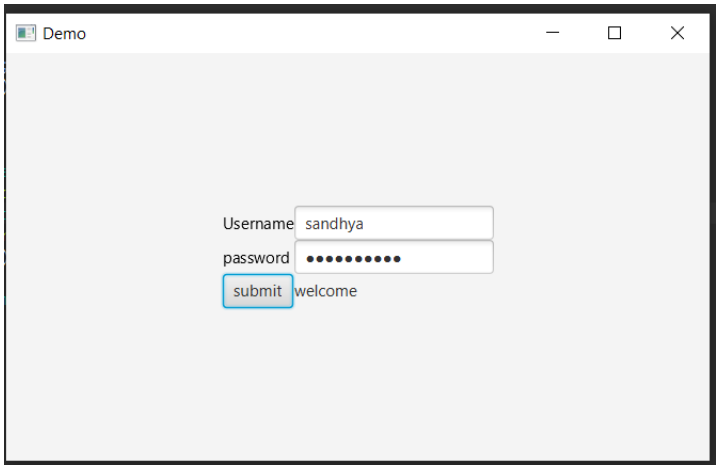
2. Java Program:

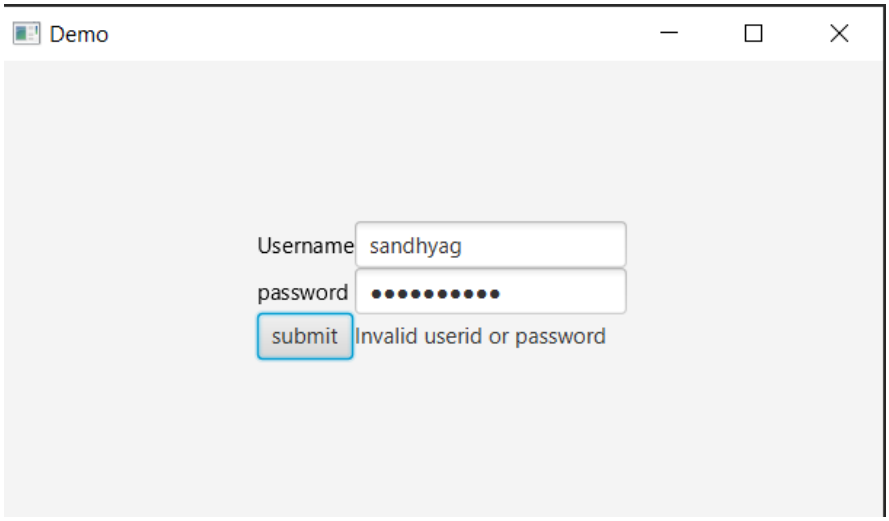
```
package application;
import javafx.application.Application;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.control.PasswordField;
import javafx.scene.control.TextField;
import javafx.scene.layout.GridPane;
import javafx.scene.text.Text;
import javafx.stage.Stage;
public class assign1 extends Application{
        Label response;
        public static void main(String[] args) {
```

```
            launch(args);
    }
    public void start(Stage stage) {
            stage.setTitle("Demo");
            GridPane gp=new GridPane();
            gp.setAlignment(Pos.CENTER);
            Scene sc=new Scene(gp);
            stage.setScene(sc);
            Text text1=new Text("Username");
            TextField tf1=new TextField();
            Text text2=new Text("password");
            PasswordField p=new PasswordField();
            response=new Label("enter");
            Button b1= new Button("submit");
            gp.add(text1, 0, 0);
            gp.add(tf1, 1, 0);
            gp.add(text2,0,1);
            gp.add(p, 1, 1);
            gp.add(b1,0,2);
            gp.add(response, 1, 2);
            b1.setOnAction((ae)->{
            if((tf1.getText().equals("sandhya"))&&(p.getText().equals("sandhyah20")))
                        response.setText("welcome");
              else
          response.setText("Wrong password");
            });
stage.show();
    }
```

```
}
```

3. Screen Shots of Execution:





1. Problem Definition:

Write a Java program to build the GUI application using JavaFX for the following requirements:

a) Create a Menu control to display the menu items: File, Edit & Help.

b) Create sub menus in the order: File → New, Open & Save. Edit → Cut, Copy & Paste.

Help → Help Centre, About Us

The program must use Mnemonics and Accelerators (wherever appropriate) to Menu Items.

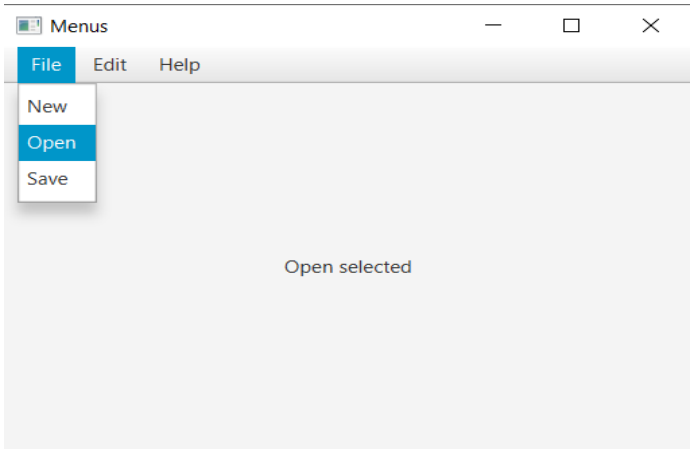
2. Java Program:

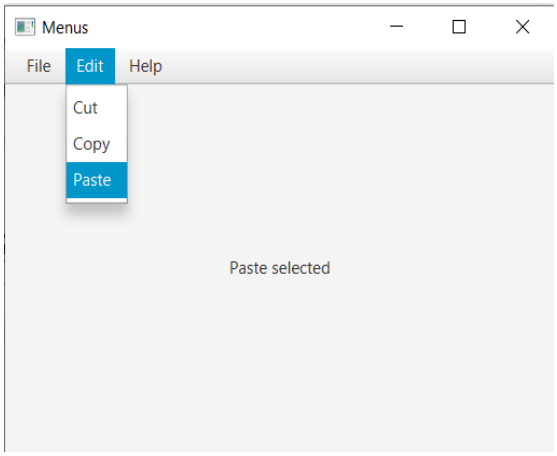
```
package application;

import javafx.application.*;
import javafx.scene.*;
import javafx.stage.*;
import javafx.scene.layout.*;
import javafx.scene.control.*;
import javafx.event.*;

public  class assignq2 extends Application {
        Label response;
        public static void main(String[] args) {
                launch(args);
        }
public void start(Stage primaryStage) {
                primaryStage.setTitle("Menus");
                BorderPane rootNode = new BorderPane();
```

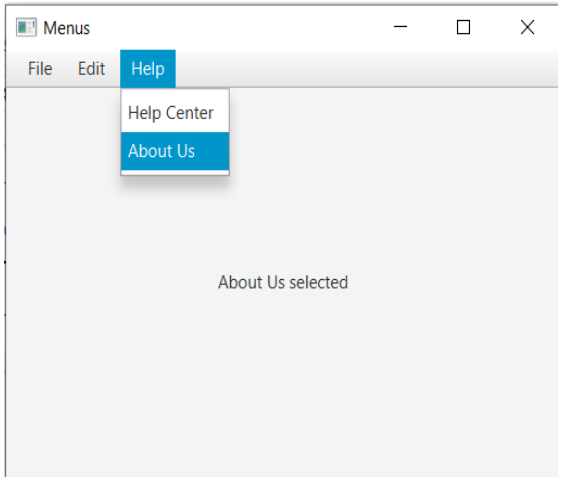
```
Scene myScene = new Scene(rootNode, 500, 500);
primaryStage.setScene(myScene);
response = new Label("Display Menu");
MenuBar mb = new MenuBar();
Menu fileMenu = new Menu("_File");
MenuItem open = new MenuItem("Open");
MenuItem save= new MenuItem("Save");
MenuItem n = new MenuItem("New");
fileMenu.getItems().addAll(n,open,save);
fileMenu.setMnemonicParsing(true);
mb.getMenus().add(fileMenu);

Menu editMenu = new Menu("Edit");
MenuItem cut = new MenuItem("Cut");
MenuItem copy = new MenuItem("Copy");
MenuItem paste = new MenuItem("Paste");



editMenu.getItems().addAll(cut,copy,paste);
mb.getMenus().add(editMenu);
Menu helpMenu = new Menu("Help");
MenuItem helpcenter=new MenuItem("Help Center");
MenuItem aboutus = new MenuItem("About Us");
helpMenu.getItems().addAll(helpcenter,aboutus);

mb.getMenus().add(helpMenu);
EventHandler<ActionEvent> MEHandler = new EventHandler<ActionEvent>() {
        public void handle(ActionEvent ae) {
                String name = ((MenuItem) ae.getTarget()).getText();
```

```
                    if (name.equals("Exit"))
                        Platform.exit();
                    response.setText(name + " selected");
                }
            };

            open.setOnAction(MEHandler);
            save.setOnAction(MEHandler);
            cut.setOnAction(MEHandler);
            copy.setOnAction(MEHandler);
            paste.setOnAction(MEHandler);
            helpcenter.setOnAction(MEHandler);
            aboutus.setOnAction(MEHandler);
            rootNode.setTop(mb);
            rootNode.setCenter(response);

            primaryStage.show();
        }
}
```

3. Screen Shots of Execution:




Menus
File
Edit
Help
Cut
Copy
Paste
Paste selected


Menus
File
Edit
Help
Help Center
About Us
About Us selected

1. Problem Definition:

Write a Java program to build the GUI application using JavaFX for the following requirements:

a) Create Context menu involving the menu items in the order: New & View.

b) Create sub menus for the above main context menu: New → File, Folder & Image.

View → Large, Medium & Small.

The context menu must be displayed on right-click of the mouse button.

2. Java Program:

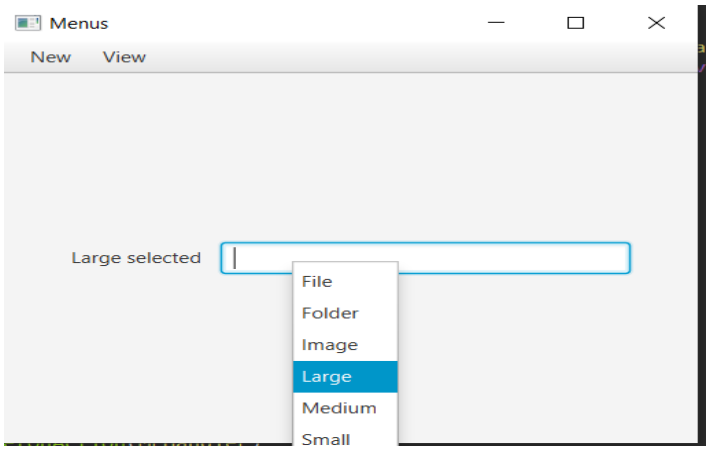
```
import javafx.application.*;

import javafx.scene.*;

import javafx.stage.*;

import javafx.scene.layout.*;

import javafx.scene.control.*;

import javafx.event.*;

import javafx.geometry.Pos;


public class assignq3 extends Application {

        Label response;


        public static void main(String[] args) {

                launch(args);
```

```
}

public void start(Stage myStage) {

        myStage.setTitle("Menus");

        BorderPane rootNode = new BorderPane();

        Scene myScene = new Scene(rootNode, 500, 500);

        myStage.setScene(myScene);


        response = new Label("Menu");

        MenuBar mb = new MenuBar();

        Menu newMenu = new Menu("New");

        MenuItem file = new MenuItem("File");

        MenuItem folder = new MenuItem("Folder");

        MenuItem image = new MenuItem("Image");

        newMenu.getItems().addAll(file, folder,image);

        mb.getMenus().add(newMenu);

        Menu viewMenu = new Menu("View");

        MenuItem large = new MenuItem("Large");

        MenuItem medium = new MenuItem("Medium");

        MenuItem small = new MenuItem("Small");


        viewMenu.getItems().addAll(large, medium,small);

        mb.getMenus().add(viewMenu);

        MenuItem fil = new MenuItem("File");
```

```
MenuItem fold = new MenuItem("Folder");
MenuItem imag = new MenuItem("Image");
MenuItem lar = new MenuItem("Large");
MenuItem mediu = new MenuItem("Medium");
MenuItem smal= new MenuItem("Small");
final ContextMenu editMenu = new ContextMenu(fil, fold, imag,lar,mediu,smal);
EventHandler<ActionEvent> MEHandler = new EventHandler<ActionEvent>() {
        public void handle(ActionEvent ae) {
                String name = ((MenuItem) ae.getTarget()).getText();
                if (name.equals("Exit"))
                        Platform.exit();
                response.setText(name + " selected");
        }
};
file.setOnAction(MEHandler);
folder.setOnAction(MEHandler);
image.setOnAction(MEHandler);
large.setOnAction(MEHandler);
medium.setOnAction(MEHandler);
small.setOnAction(MEHandler);
fil.setOnAction(MEHandler);
fold.setOnAction(MEHandler);
imag.setOnAction(MEHandler);
```

```
            lar.setOnAction(MEHandler);

            mediu.setOnAction(MEHandler);

            smal.setOnAction(MEHandler);



            TextField tf = new TextField();

            tf.setPrefColumnCount(20);

            tf.setContextMenu(editMenu);

            rootNode.setTop(mb);

            FlowPane fpRoot = new FlowPane(10, 10);

            fpRoot.setAlignment(Pos.CENTER);

            fpRoot.getChildren().addAll(response, tf);

            rootNode.setCenter(fpRoot);

            myStage.show();

        }

}
```

3. Screen Shots of Execution:



1. Problem Definition:

Write a JavaFX program that produces the following output when executed and displays Dialog Box

(as shown in Figure.2) on click of Register button (as shown in Figure.1):

Figure.1

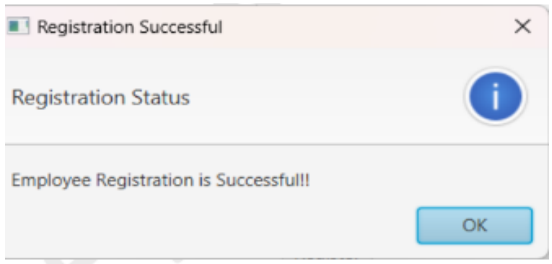


Figure. 2

2. Java Program:

```
package application;

import javafx.application.Application;

import javafx.geometry.Insets;

import javafx.geometry.Pos;

import javafx.scene.control.Dialog;

import javafx.scene.Scene;

import javafx.scene.control.Button;

import javafx.scene.control.CheckBox;

import javafx.scene.control.ChoiceBox;
```

```
import javafx.scene.control.DatePicker;
import javafx.scene.layout.BorderPane;
import javafx.scene.control.ButtonType;
import javafx.scene.control.Label;
import javafx.scene.control.RadioButton;
import javafx.scene.layout.GridPane;
import javafx.scene.text.Text;
import javafx.scene.control.TextField;
import javafx.scene.control.ToggleGroup;
import javafx.stage.Stage;

public class assign4 extends Application {
@Override
 public void start(Stage stage) {
 BorderPane root = new BorderPane();
 stage.setTitle(" JavaFX Registration form");
 Label label = new Label("Employee Registration Form");
 root.setTop(label);
 Text nameLabel = new Text("Enter your Name");

 TextField nameText = new TextField();
 Text dobLabel = new Text("Enter Date of birth");
 DatePicker datePicker = new DatePicker();
```

```
Text genderLabel = new Text("Enter your Gender");

ToggleGroup groupGender = new ToggleGroup();

RadioButton maleRadio = new RadioButton("male");

maleRadio.setToggleGroup(groupGender);

RadioButton femaleRadio = new RadioButton("female");

femaleRadio.setToggleGroup(groupGender);



Text selectyourqualificationLabel = new Text("Select your qualification");

CheckBox ugCheckBox = new CheckBox("UG");

ugCheckBox.setIndeterminate(false);

CheckBox pgCheckBox = new CheckBox("PG");

pgCheckBox.setIndeterminate(false);

CheckBox phdCheckBox = new CheckBox("PhD");

phdCheckBox.setIndeterminate(false);

Text locationLabel = new Text("select your state");


ChoiceBox locationchoiceBox = new ChoiceBox();

locationchoiceBox.getItems().addAll

("Karnataka", "Tamilnadu", "Delhi", "Mumbai", "AP");


Button buttonRegister = new Button("Register");

GridPane gridPane = new GridPane();
```

```
gridPane.setMinSize(500, 500);

gridPane.setPadding(new Insets(10, 10, 10, 10));

gridPane.setVgap(5);

gridPane.setHgap(5);

gridPane.setAlignment(Pos.CENTER);

gridPane.add(nameLabel, 0, 0);

gridPane.add(nameText, 1, 0);

gridPane.add(dobLabel, 0, 3);

gridPane.add(datePicker, 1, 3);

gridPane.add(genderLabel, 0, 2);

gridPane.add(maleRadio, 1, 2);

gridPane.add(femaleRadio, 2, 2);

gridPane.add(selectyourqualificationLabel , 0, 5);

gridPane.add(ugCheckBox, 1, 5);

gridPane.add(pgCheckBox, 2, 5);

gridPane.add(phdCheckBox,3, 5);


gridPane.add(locationLabel, 0, 4);

gridPane.add(locationchoiceBox, 1, 4);



gridPane.add(buttonRegister, 1, 8);

buttonRegister.setStyle(
```

```
"-fx-font: normal bold 15px 'serif' " );


nameLabel.setStyle("-fx-font: normal bold 15px 'serif' ");

dobLabel.setStyle("-fx-font: normal bold 15px 'serif' ");

genderLabel.setStyle("-fx-font: normal bold 15px 'serif' ");


selectyourqualificationLabel.setStyle("-fx-font: normal bold 15px 'serif' ");


locationLabel.setStyle("-fx-font: normal bold 15px 'serif' ");



gridPane.setStyle("-fx-background-color: white;");


buttonRegister.setOnAction(e->{

Dialog dialog = new Dialog();

dialog.setTitle("Registration Successfull");

dialog.setHeaderText("Registration Status");

dialog.setContentText("Employee Registration is successfull");

dialog.getDialogPane().getButtonTypes().add(ButtonType.OK);

dialog.show();

});
```

```
Scene scene = new Scene(gridPane);
stage.setScene(scene);
stage.show();
}
public static void main(String args[]){
launch(args);
}
}
```

3. Screen Shots of Execution: