SDM COLLEGE OF ENGINEERING AND TECHNOLOGY DHARWAD-580002

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SUBJECT: AOOP

COURSE CODE: 18UCSE508

TOPIC:AOOP ASSIGNMENT 2

COURSE TEACHER: Prof.Indira U

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 user name and password don’t match, then print the failure message.

**package** application;

**import** javafx.application.Application;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**import** javafx.geometry.Insets;

**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.paint.Color;

**import** javafx.scene.text.Font;

**import** javafx.scene.text.FontPosture;

**import** javafx.scene.text.FontWeight;

**import** javafx.scene.text.Text;

**import** javafx.stage.Stage;

**public** **class** usepasswd **extends** Application {

String username="Jonathan";

String password="j\_0\_9\_";

String checkUser,checkPass;

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

*launch*(args);

}

**public** **void** start(Stage myStage) **throws** Exception {

myStage.setTitle("Login Page");

GridPane gp=**new** GridPane();

GridPane gp1=**new** GridPane();

gp.setAlignment(Pos.***CENTER***);

gp1.setAlignment(Pos.***CENTER***);

gp.setHgap(10);

gp.setVgap(10);

gp.setPadding(**new** Insets(20,20,20,20));

Scene scene1=**new** Scene(gp,500,400);

Scene scene2=**new** Scene(gp1,500,400);

Text login=**new** Text("Login Page");

Label uname=**new** Label("UserName: ");

Label paswd=**new** Label("Password: ");

Button submit=**new** Button("SUBMIT");

TextField tf1=**new** TextField();

PasswordField pf=**new** PasswordField();

Label success=**new** Label("WELCOME TO THE PAGE");

Label failure=**new** Label();

gp.add(login,1,0);

gp.add(uname,0,1);

gp.add(tf1,1,1);

gp.add(paswd,0,2);

gp.add(pf,1,2);

gp.add(submit,1,3);

submit.setOnAction(**new** EventHandler<ActionEvent>() {

**public** **void** handle(ActionEvent e) {

checkUser=tf1.getText().toString();

checkPass=pf.getText().toString();

**if**(checkUser.equals(username)&&checkPass.equals(password)) {

myStage.setScene(scene2);

gp1.getChildren().addAll(success);

}

**else** {

gp.add(failure,1,5);

failure.setText("Invalid Username or Password");

}

}

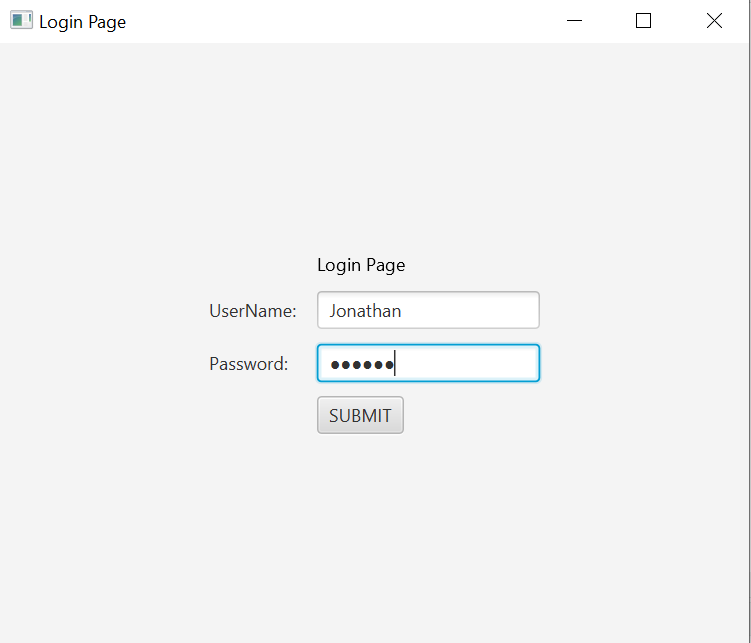
});

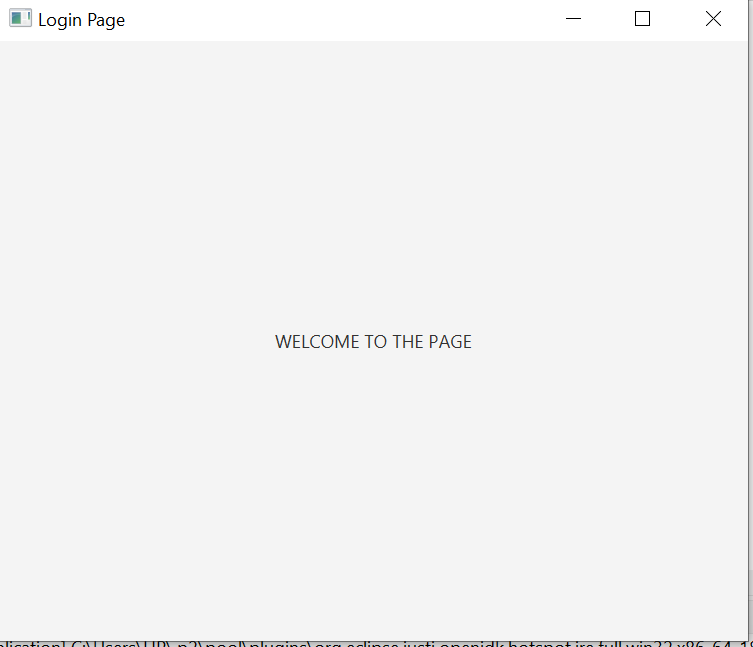
myStage.setScene(scene1);

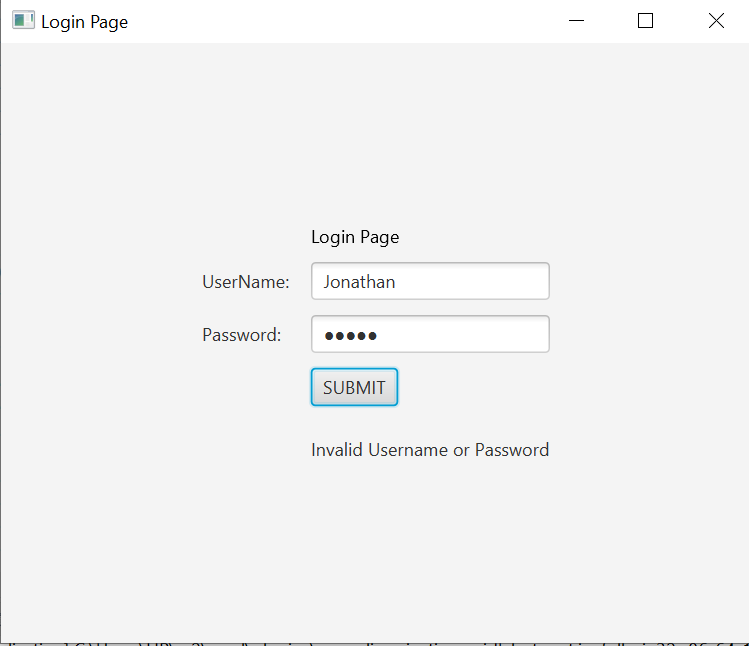
myStage.show();

}

}







Q2. 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

package application;

import javafx.application.Application;

import javafx.scene.Scene;

import javafx.scene.control.\*;

import javafx.scene.layout.BorderPane;

import javafx.stage.Stage;

public class menusubmenu1 extends Application {

@Override

public void start(Stage primaryStage) throws Exception {

// TODO Auto-generated method stub

BorderPane root = new BorderPane();

Scene scene = new Scene(root,200,300);

MenuBar menubar = new MenuBar();

Menu FileMenu = new Menu("File");

MenuItem Filesubmenu1=new MenuItem("New");

MenuItem Filesubmenu2=new MenuItem("Open");

MenuItem Filesubmenu3=new MenuItem("Save");

Menu EditMenu=new Menu("Edit");

MenuItem EditsubMenu1=new MenuItem("Cut");

MenuItem EditsubMenu2=new MenuItem("Copy");

MenuItem EditsubMenu3=new MenuItem("Paste");

Menu HelpMenu=new Menu("Help");

MenuItem HelpsubMenu1=new MenuItem("Help Centre");

MenuItem HelpsubMenu2=new MenuItem("About Us");

FileMenu.getItems().addAll(Filesubmenu1,Filesubmenu2,Filesubmenu3);

EditMenu.getItems().addAll(EditsubMenu1,EditsubMenu2,EditsubMenu3);

root.setTop(menubar);

HelpMenu.getItems().addAll(HelpsubMenu1,HelpsubMenu2);

root.setTop(menubar);

menubar.getMenus().addAll(FileMenu,EditMenu,HelpMenu);

primaryStage.setScene(scene);

primaryStage.show();

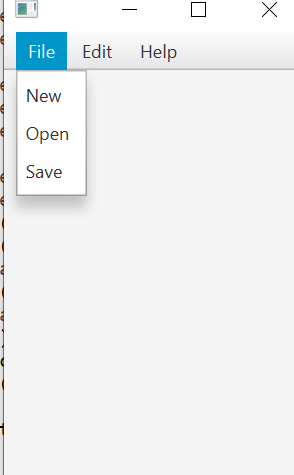
}

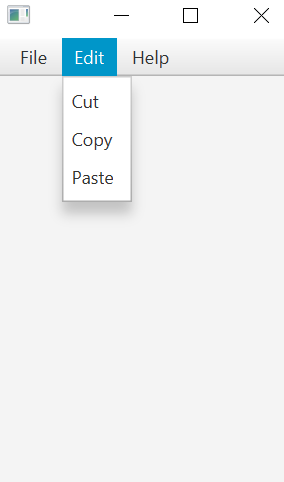
public static void main(String[] args) {

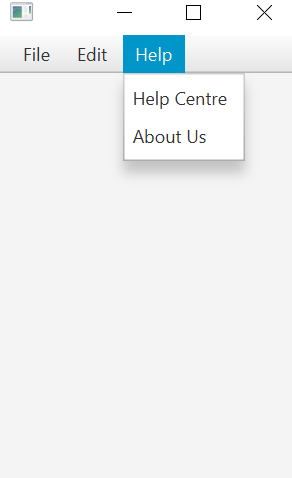
launch(args);

}

}







Q3. 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.

**package** application;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.\*;

**import** javafx.scene.layout.\*;

**import** javafx.stage.Stage;

**public** **class** contextMenu\_1 **extends** Application {

// labels

Label l;

Label l1;

TilePane tilePane;

TilePane tilePane1;

Scene sc;

Scene sc1;

// launch the application

**public** **void** start(Stage stage)

{

// set title for the stage

stage.setTitle("Context Menu");

// create a label

Label label1 = **new** Label("New");

Label labell1 = **new** Label("View");

// create a menu

ContextMenu contextMenu = **new** ContextMenu();

// create menuitems

MenuItem menuItem1 = **new** MenuItem("File");

MenuItem menuItem2 = **new** MenuItem("Folder");

MenuItem menuItem3 = **new** MenuItem("Image");

MenuItem menuItem4 = **new** MenuItem("Large");

MenuItem menuItem5 = **new** MenuItem("Medium");

MenuItem menuItem6 = **new** MenuItem("Small");

// add menu items to menu

contextMenu.getItems().add(menuItem1);

contextMenu.getItems().add(menuItem2);

contextMenu.getItems().add(menuItem3);

contextMenu.getItems().add(menuItem4);

contextMenu.getItems().add(menuItem5);

contextMenu.getItems().add(menuItem6);

// create a tilepane

TilePane tilePane = **new** TilePane(label1);

TilePane tilePane1 = **new** TilePane(labell1);

// setContextMenu to label

label1.setContextMenu(contextMenu);

labell1.setContextMenu(contextMenu);

// create a scene

Scene sc = **new** Scene(tilePane, 200, 200);

Scene sc1 = **new** Scene(tilePane1, 300, 300);

// set the scene

stage.setScene(sc);

stage.setScene(sc1);

stage.show();

}

**public** **static** **void** main(String args[])

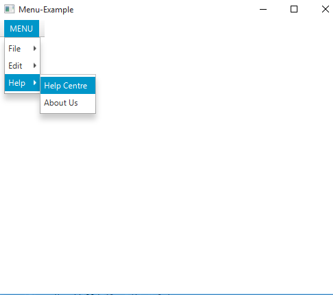
{

// launch the application

*launch*(args);

}

}



Q4. 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):



**package** application;

**import** java.io.FileInputStream;

**import** java.io.InputStream;

**import** javafx.application.Application;

**import** javafx.collections.FXCollections;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**import** javafx.geometry.Pos;

**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.control.Label;

**import** javafx.scene.control.RadioButton;

**import** javafx.scene.control.TextField;

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.layout.GridPane;

**import** javafx.scene.shape.Line;

**import** javafx.scene.text.Font;

**import** javafx.scene.text.FontWeight;

**import** javafx.scene.text.Text;

**import** javafx.stage.Stage;

**import** javafx.scene.paint.Color;

**public** **class** Registration **extends** Application {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

*launch*(args);

}

**public** **void** start(Stage myStage) {

GridPane gp=**new** GridPane();

GridPane gp1=**new** GridPane();

gp.setAlignment(Pos.***CENTER***);

gp.setHgap(5);

gp.setVgap(15);

Scene scene1=**new** Scene(gp,550,400);

Scene scene2=**new** Scene(gp1,500,200);

myStage.setScene(scene1);

myStage.setTitle("JavaFX Registration Form");

Text t=**new** Text("Employee Registration Form");

Label name=**new** Label("Enter Your Name:");

Label gender =**new** Label("Select Your Gender:");

Label dob=**new** Label("Enter DOB:");

Label state =**new** Label("Select Your State:");

Label qualification=**new** Label("Select Your Qualification:");

TextField tf1=**new** TextField("Enter Your Name");

RadioButton r1=**new** RadioButton("male");

RadioButton r2=**new** RadioButton("Female");

DatePicker d=**new** DatePicker();

String s[]={"Karnataka","Maharashtra","UttarPradesh","Gujarat"};

ChoiceBox c = **new** ChoiceBox(FXCollections.*observableArrayList*(s));

CheckBox cb1=**new** CheckBox("UG");

CheckBox cb2=**new** CheckBox("PG");

CheckBox cb3=**new** CheckBox("PhD");

Button b=**new** Button("Register");

t.setFont(Font.*font*("Arial", FontWeight.***BOLD***, 18));

t.setFill(Color.***RED***);

gp.add(t, 1, 0);

gp.add(name,0,1);

gp.add(gender, 0, 2);

gp.add(dob, 0, 3);

gp.add(state, 0, 4);

gp.add(qualification, 0, 5);

gp.add(tf1, 1, 1);

gp.add(r1, 1, 2);

gp.add(r2, 2, 2);

gp.add(d, 1,3);

gp.add(c, 1, 4);

gp.add(cb1, 1, 6);

gp.add(cb2, 1, 7);

gp.add(cb3, 1, 8);

gp.add(b, 1, 9);

Label regi=**new** Label("Registration Status");

Label Empregi=**new** Label("Employee Registration is Successful!!");

Line l=**new** Line();

regi.setFont(**new** Font("Arial", 18));

Empregi.setFont(**new** Font("Arial", 14));

Empregi.setTextFill(Color.***CHOCOLATE***);

Button OK=**new** Button(" OK ");

b.setOnAction(**new** EventHandler<ActionEvent>() {

**public** **void** handle(ActionEvent e) {

myStage.setTitle("Registration Successful");

myStage.setScene(scene2);

gp1.add(regi,0, 0);

gp1.add(l, 0, 1);

gp1.add(Empregi,0,2);

gp1.add(OK, 1,3);

gp1.setVgap(30);

gp1.setAlignment(Pos.***CENTER***);

}

});

myStage.show();

}

}

