SDM COLLEGE OF ENGINEERING AND TECHNOLOGY DHARWAD-580002

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USN: 2SD20CS050

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.

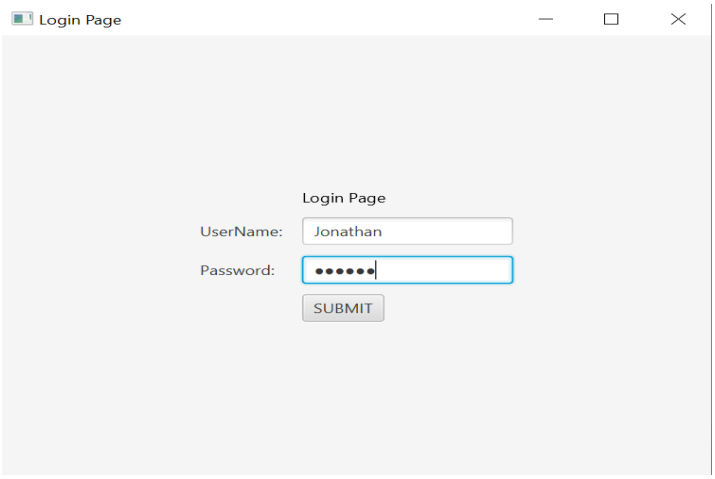
b) Validate the input. If user name and password are matched with the assumed values, then display the welcome scene with proper text.

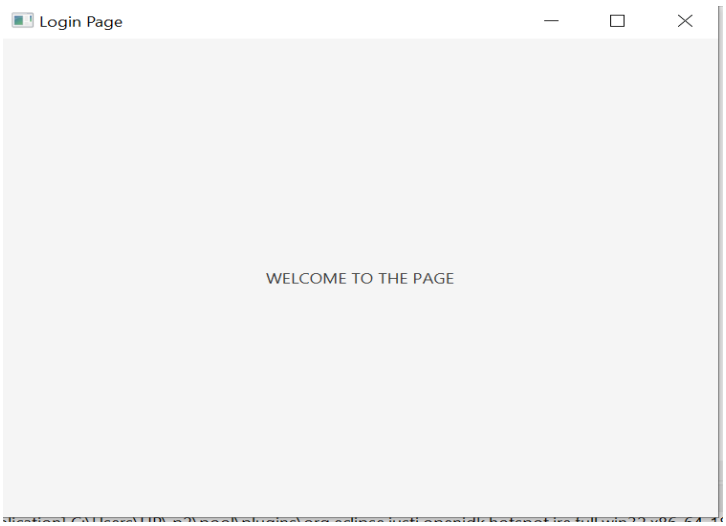
c) If user name and password don't match, then print the failure message.

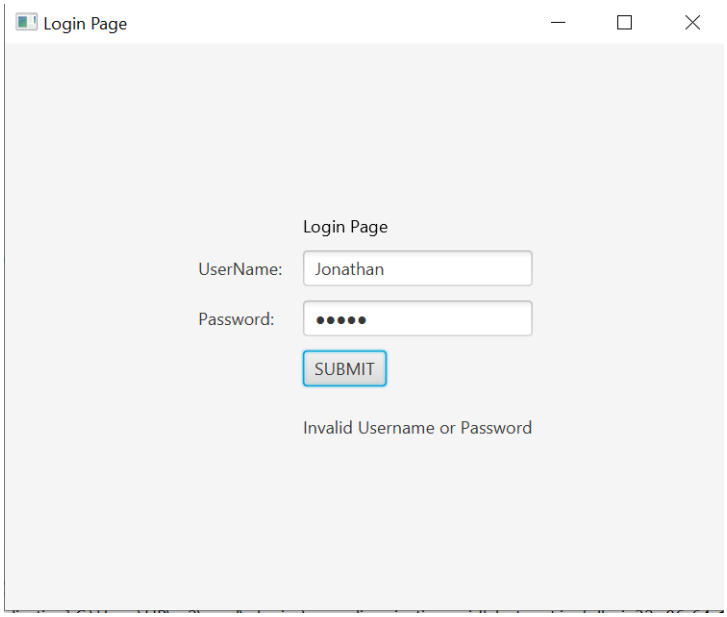
```
package application;

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.

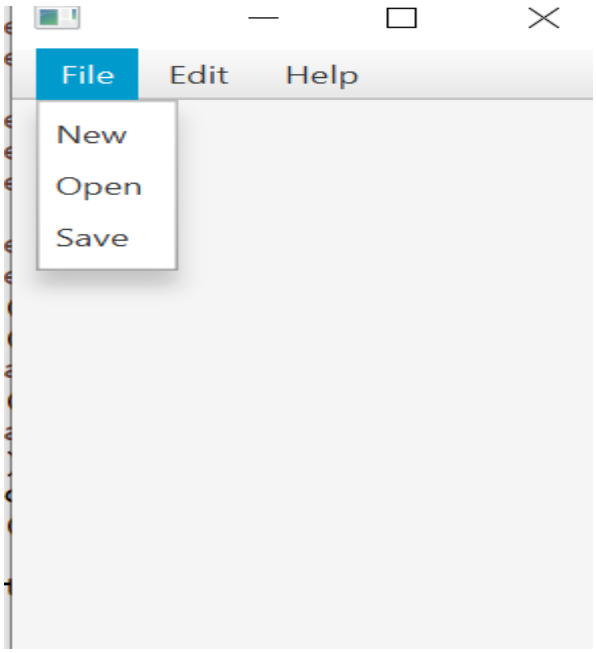
b) Create sub menus in the order: File → New, Open & Save. Edit → Cut, Copy & Paste.

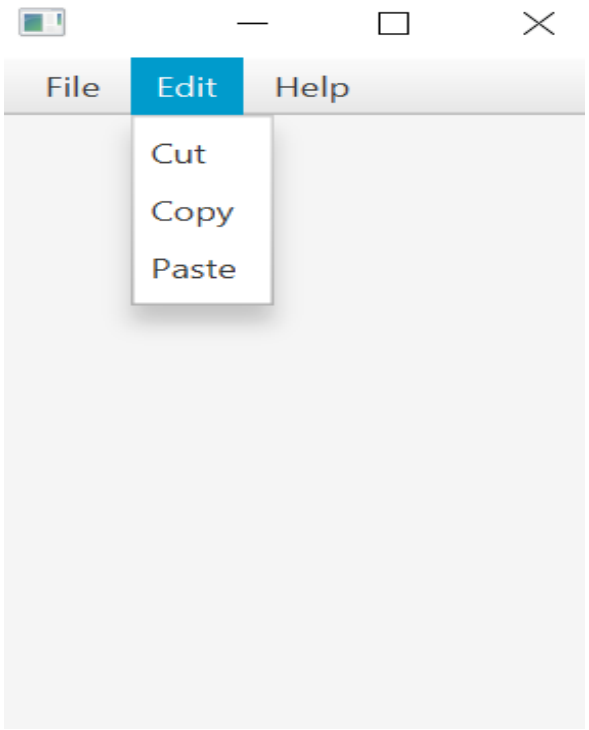
Help → Help Centre, About Us

```
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);
        }
}
```


File
Edit
Help
New
Open
Save


File
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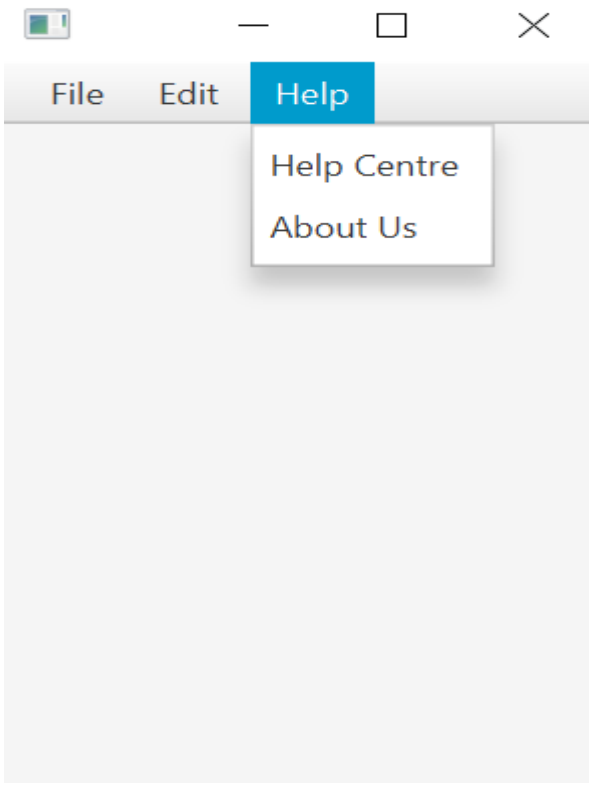


Q3. Write a Java program to build the GUI application using JavaFX for the following requirements:

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):

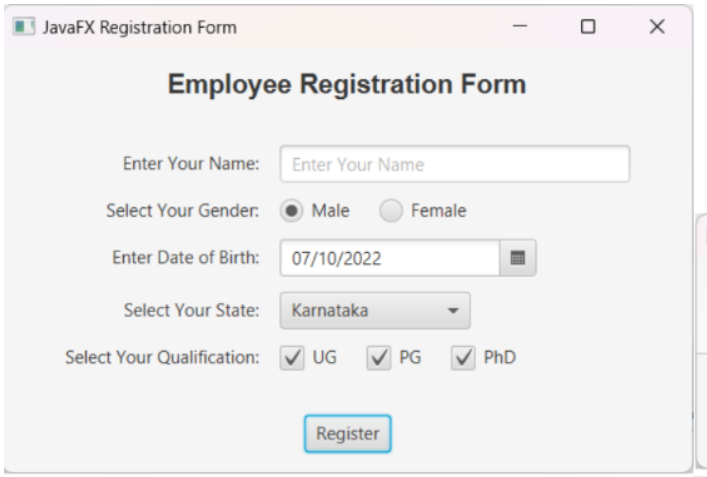


Figure.1

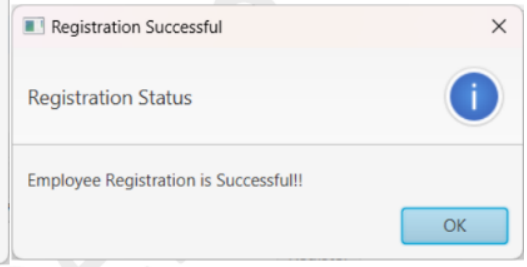


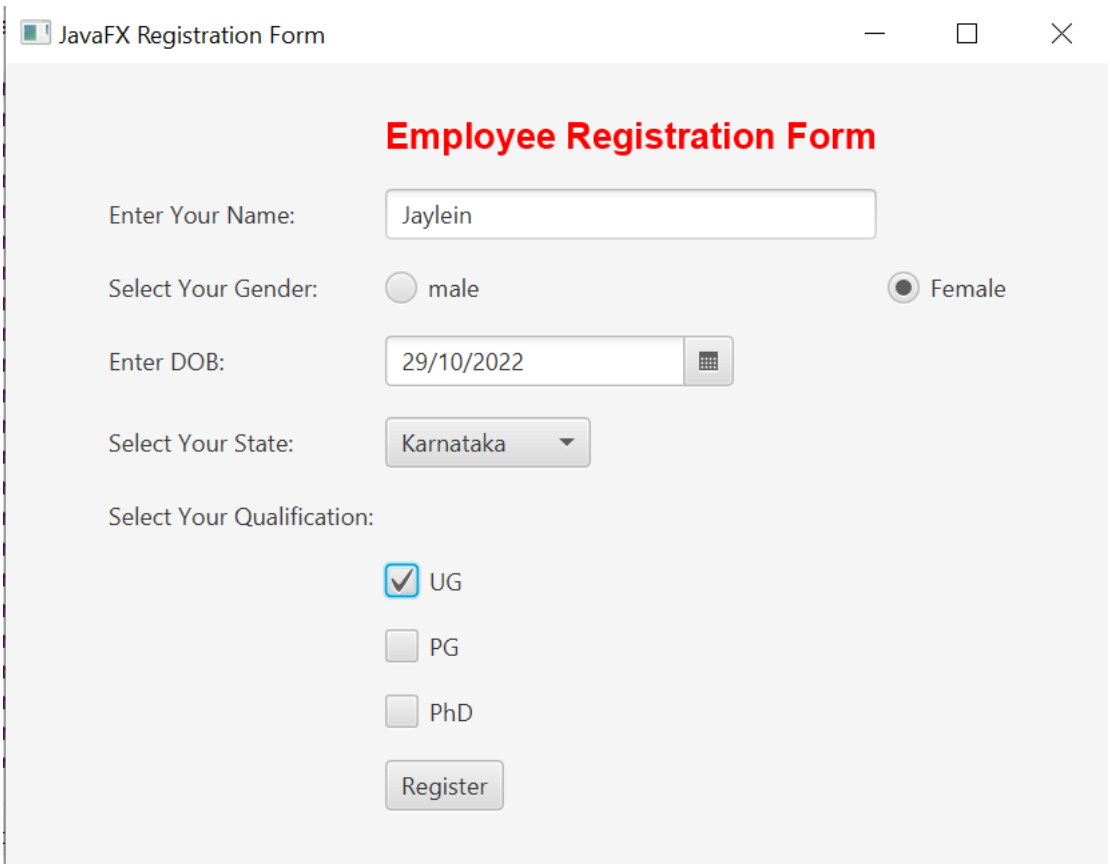
Figure. 2

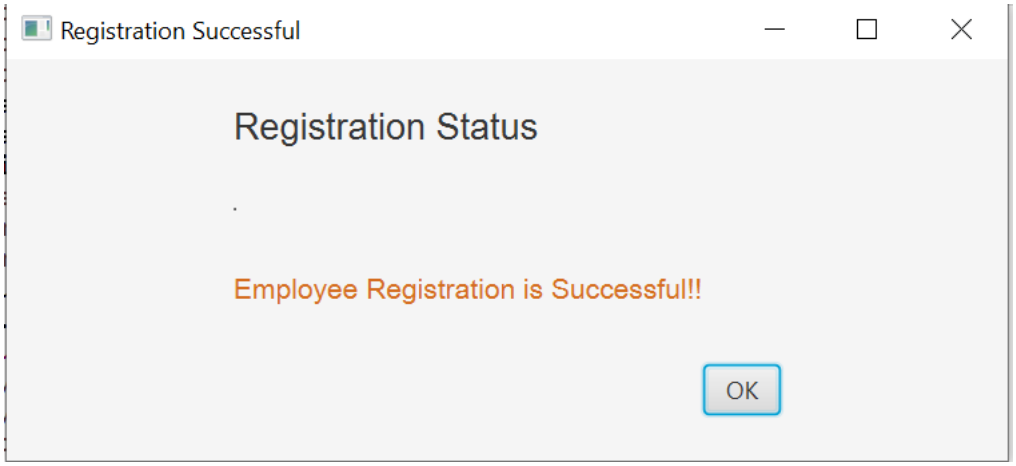
```
package application;

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();
}
}
```




Registration Successful
Registration Status
Employee Registration is Successful!!
OK