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Department
of
COMPUTER SCIENCE AND ENGINEERING

ASSIGNMENT-2

[18UCSE508- ADVANCED OBJECT ORIENTED PROGRAMMING]

Course Teacher: Prof. Indira R Umarji

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Submitted

By

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2SD20CS108
5th Semester B division

1.JavaFX program to build GUI application for the requirements stated above in the question

```java
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.text.Text;

import javafx.stage.Stage;


public class Ass_2_1 extends Application {

        String username="Vatsala";

        String password="poornima";

    String checkUser,checkPass;

        public static void main(String[] args) {

                // TODO Auto-generated method stub

                launch(args);


        }

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

```java
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 un=new Label("User Name : ");

Label pas=new Label("Password : ");

Button submit=new Button("SUBMIT");

TextField tf1=new TextField();

PasswordField p=new PasswordField();

Label suc=new Label("WELCOME TO THE PAGE");

Label fai=new Label();

gp.add(login,1,0);

gp.add(un,0,1);

gp.add(tf1,2,1);

gp.add(pas,0,2);
```

```java
            gp.add(p,2,2);

            gp.add(submit,1,3);

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

                    public void handle(ActionEvent e) {

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

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

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

                                    myStage.setScene(scene2);

                                    gp1.getChildren().addAll(suc);


                            }

                            else {

                                    gp.add(fai, 1, 5);

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


                            }
                    }
            });


            myStage.setScene(scene1);

            myStage.show();

    }


}
```
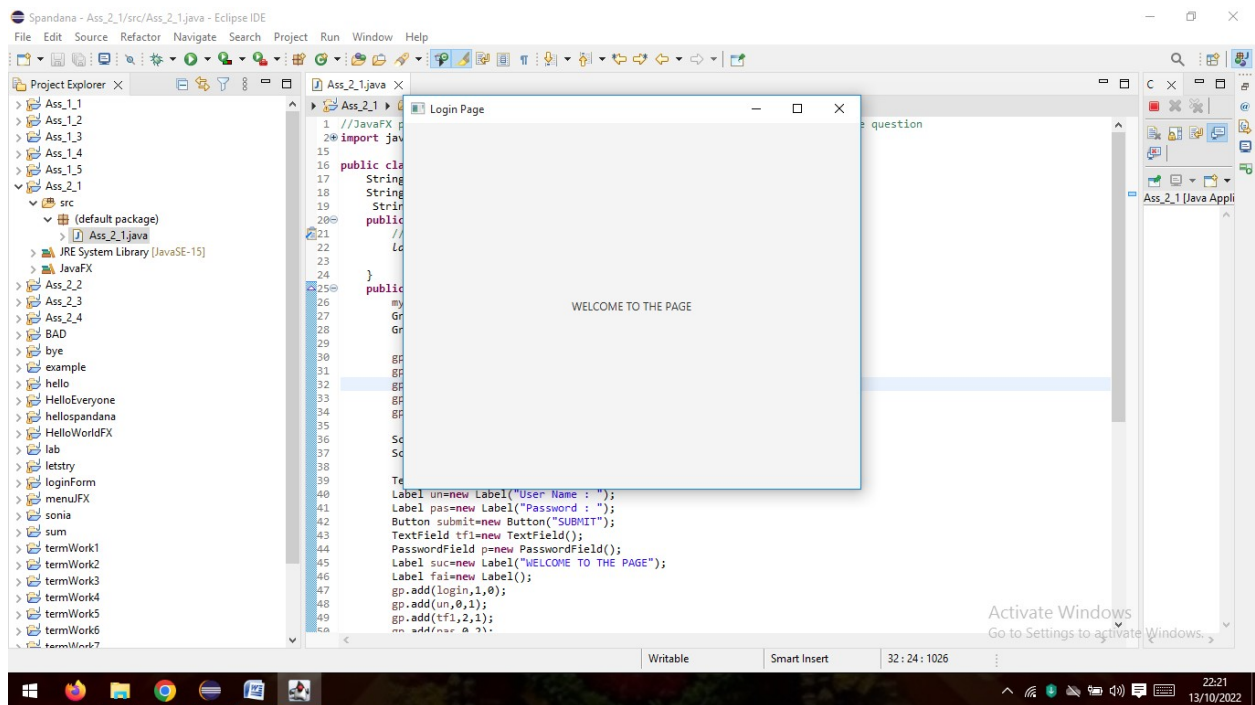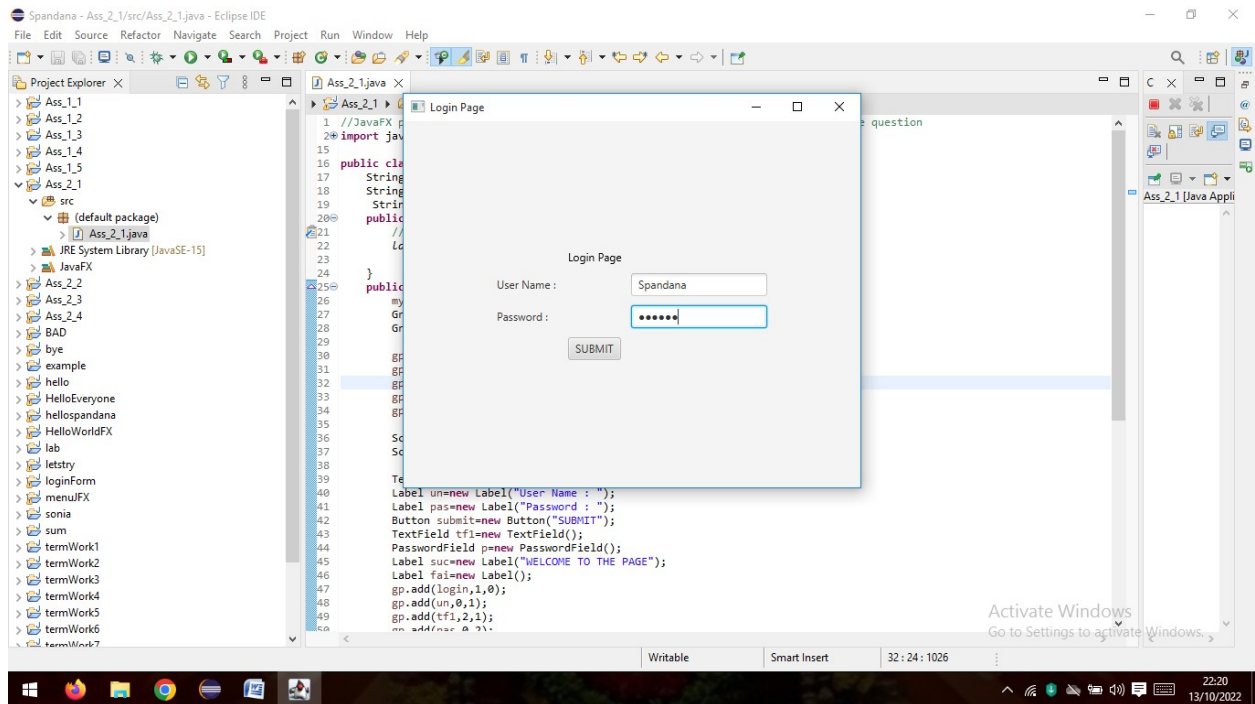
```java
2.//JAVAFX application for illustrating MenuItems and SubMenus
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.control.Menu;
import javafx.scene.control.MenuBar;
import javafx.scene.control.MenuItem;
import javafx.stage.Stage;

public class menu extends Application{

    public void start(Stage myStage)throws Exception {

        myStage.setTitle("Menu-Example");
        MenuBar m=new MenuBar();
        Group gp=new Group(m);

        Menu men=new Menu("MENU");

         Menu File=new Menu("File");
           MenuItem New=new MenuItem("New");
           MenuItem Open=new MenuItem("Open");
           MenuItem Save=new MenuItem("Save");

         Menu Edit=new Menu("Edit");
           MenuItem Cut=new MenuItem("Cut");
           MenuItem Copy=new MenuItem("Copy");
           MenuItem Paste=new MenuItem("Paste");

         Menu Help=new Menu("Help");
           MenuItem HelpCentre=new MenuItem("Help Centre");
           MenuItem AboutUs=new MenuItem("About Us");

        m.getMenus().add(men);
        men.getItems().addAll(File,Edit,Help);
        File.getItems().addAll(New,Open,Save);
        Edit.getItems().addAll(Cut,Copy,Paste);
        Help.getItems().addAll(HelpCentre,AboutUs);

         Scene scene1=new Scene(gp,500,400);
        myStage.setScene(scene1);
        myStage.show();
    }

    public static void main(String args[]) {
        launch(args);
    }
}
```
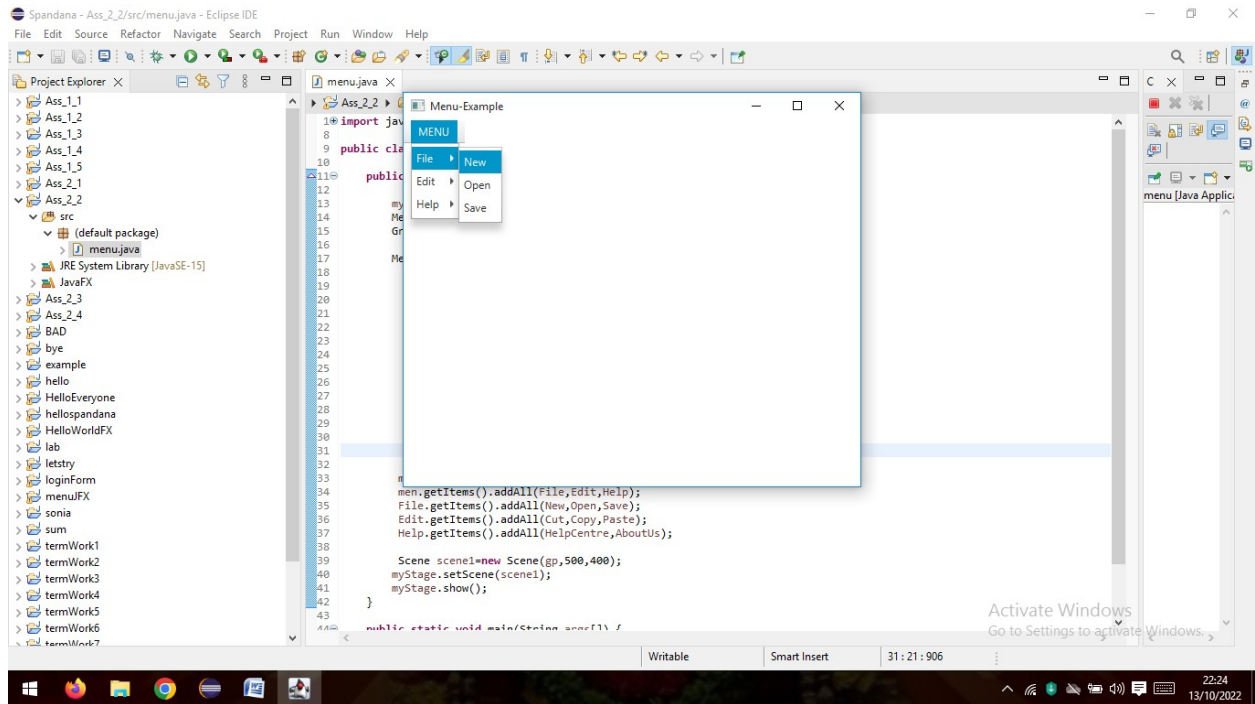
}

OUTPUT :

3.//JAVA FX program to build GUI application focusing on Context-Menu

import javafx.application.Application;

import javafx.scene.Scene;

import javafx.scene.control.ContextMenu;

import javafx.scene.control.Label;

import javafx.scene.control.Menu;

import javafx.scene.control.MenuItem;

import javafx.scene.layout.TilePane;

```java
import javafx.stage.Stage;
public class contextMenu extends Application {
  public void start(Stage myStage) {
        myStage.setTitle("Context-Menu Example");
        Label l=new Label("Context-Menu");
        ContextMenu cm=new ContextMenu();

        Menu New=new Menu("New");
          MenuItem File=new MenuItem("File");
          MenuItem Folder=new MenuItem("Folder");
          MenuItem Image=new MenuItem("Image");
        Menu view=new Menu("View");
          MenuItem Large=new MenuItem("Large");
          MenuItem Medium=new MenuItem("Medium");
          MenuItem Small=new MenuItem("Small");
        TilePane tp=new TilePane(l);

        l.setContextMenu(cm);
        Scene scene1=new Scene(tp,500,400);

        cm.getItems().add(New);
        cm.getItems().add(view);

        New.getItems().addAll(File,Folder,Image);
        view.getItems().addAll(Large,Medium,Small);
```

```
        myStage.setScene(scene1);

        myStage.show();



}

public static void main(String[] args) {

        // TODO Auto-generated method stub

        launch(args);

}



}
```

OUTPUT:
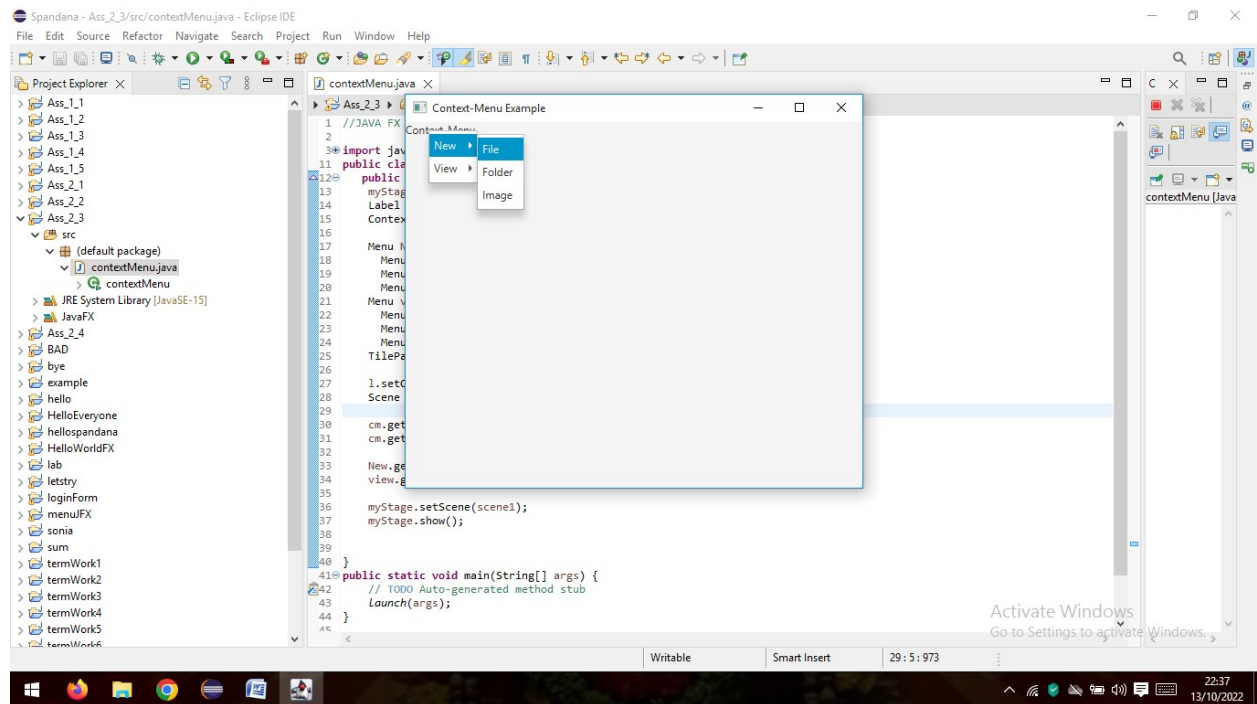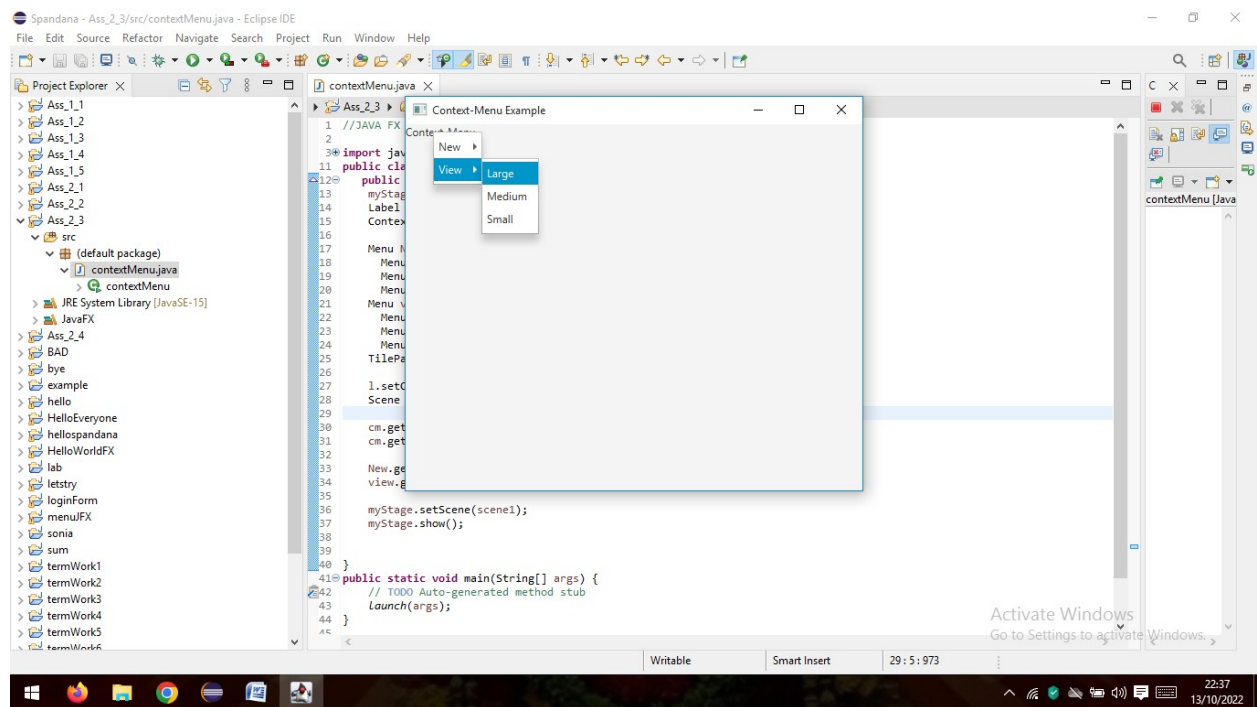
4.//Registration form-JAVAFX

```java
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;

public class Registration extends Application {

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

```java
        // 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("Emplyoee 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));

        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);
```

```java
                gp.add(cb1, 1, 5);
                gp.add(cb2, 2, 5);
                gp.add(cb3, 3, 5);
                gp.add(b, 1, 6);


        Label regi=new Label("Registration Status");
        Label Empregi=new Label("Emplyoee Registration is Successful!!");
        Line l=new Line();

        regi.setFont(new Font("Arial", 18));
        Empregi.setFont(new Font("Arial", 14));
        Button OK=new Button("    OK    ");
                b.setOnAction(new EventHandler<ActionEvent>() {
                        public void handle(ActionEvent e) {
                                myStage.setTitle("Registration
Successful");

                                myStage.setScene(scene2);

                                gp1.setVgap(30);
                                gp1.setAlignment(Pos.CENTER);



                                 //creating the image object
                try {      InputStream stream = new
FileInputStream("C:\\Users\\dell\\Desktop\\Vatsala\\info.png");
                                Image image = new Image(stream);
                                //Creating the image view
                                ImageView imageView = new
ImageView();

                                //Setting image to the image view
                                imageView.setImage(image);
                                //Setting the image view
parameters
                                imageView.setX(10);
                                imageView.setY(10);
                                imageView.setFitWidth(40);
                                imageView.setPreserveRatio(true);
                                gp1.add(imageView,1,0);
                }     catch(Exception ie) {
                        System.out.println(ie);
                }

                l.setStartX(100.0);
                l.setStartY(150.0);
                l.setEndX(520.0);
                l.setEndY(150.0);

                                gp1.add(regi,0, 0);
                                gp1.add(l, 0, 1);
                                gp1.add(Empregi,0,2);
                                gp1.add(OK, 1,3);
```

```
                                   }
                         });

              myStage.show();
    }

}
```

OUTPUT:

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ×

> Ass_1_1
> Ass_1_2
> Ass_1_3
> Ass_1_4
> Ass_1_5
> Ass_2_1
> Ass_2_2
> Ass_2_3
> Ass_2_4
> BAD
> bye
> example
> hello
> HelloEveryone
> hellospandana
> HelloWorldFX
> lab
> letstry
> loginForm
> menuJFX
> sonia
> sum
> termWork1
> termWork2
> termWork3
> termWork4
> termWork5
> termWork6
> termWork7
> termWork8
> test
> TESTFX
  threads (in java)

Registration.java ×

```
1   //Reg
2
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5   impor
6   impor
7   impor
8   impor
9   impor
10  impor
11  impor
12  impor
13  impor
14  impor
15  import javafx.scene.control.Label;
16  import javafx.scene.control.RadioButton;
17  import javafx.scene.control.TextField;
18  import javafx.scene.image.Image;
19  import javafx.scene.image.ImageView;
20  import javafx.scene.layout.GridPane;
21  import javafx.scene.shape.Line;
22  import javafx.scene.text.Font;
23  import javafx.scene.text.FontWeight;
24  import javafx.scene.text.Text;
25  import javafx.stage.Stage;
26
27  public class Registration extends Application {
28
29⊖     public static void main(String[] args) {
30          // TODO Auto-generated method stub
31          launch(args);
32      }
33
34⊖     public void start(Stage myStage) {
35          GridPane gp=new GridPane();
36          GridPane gp1=new GridPane();
37          gp.setAlignment(Pos.CENTER);
38          gp.setHgap(5);
```

Registration Successful

Registration Status

Emplyoee Registration is Successfull!

OK

Writable   Smart Insert   21 : 31 : 715

Console ×

Registration [Java Applicatio

Activate Windows
Go to Settings to activate Windows.

11:53
15/10/2022