Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

School Of Information Technology And Engineering

JAVA PROJECT

STUDENT MANAGEMENT SYSTEM

NAME	ESHAN GUPTA
REG NO.	20BIT0262
GITHUB LINK	LINK

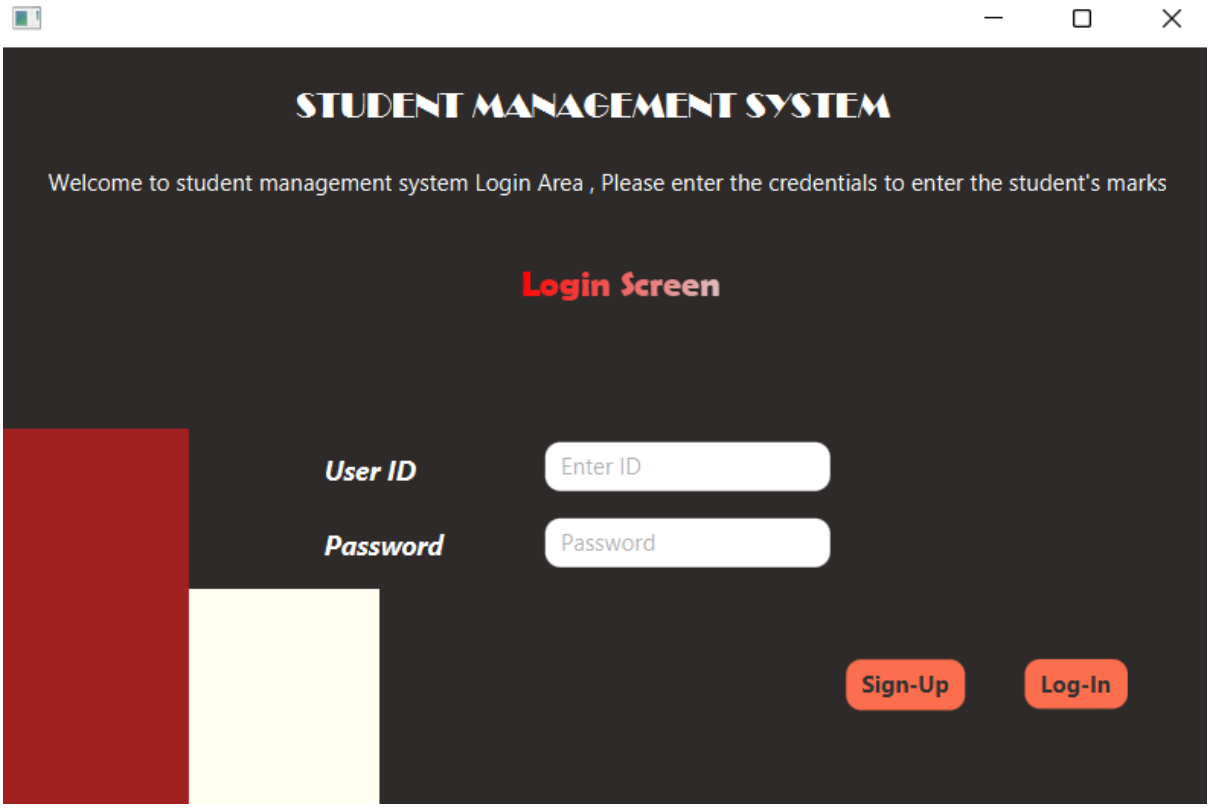
Aim-: To update the marks of students and establish the link between admin and student.

Objective-: In this project I have allowed the admin to enter the student's marks which get uploaded to the database and the same data is shown to the student. The main objective of the project is to stablish the link between the admin (Faculty) and student.

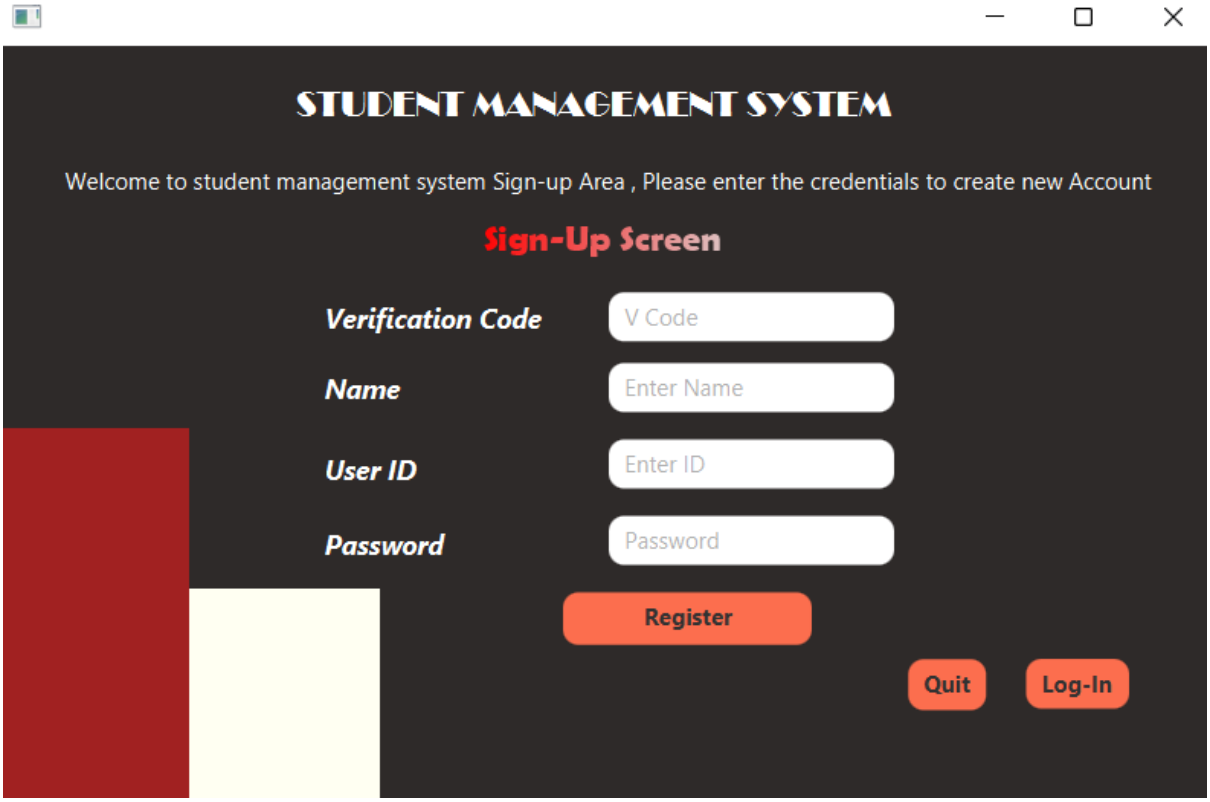
Introduction-: I have made 11 different screens using screen builder for my project and all of there screen are listed below.

1. Welcome Screen -: This is the first screen if a user opens the application and it gives option to the user to either select if he is a admin or a student.

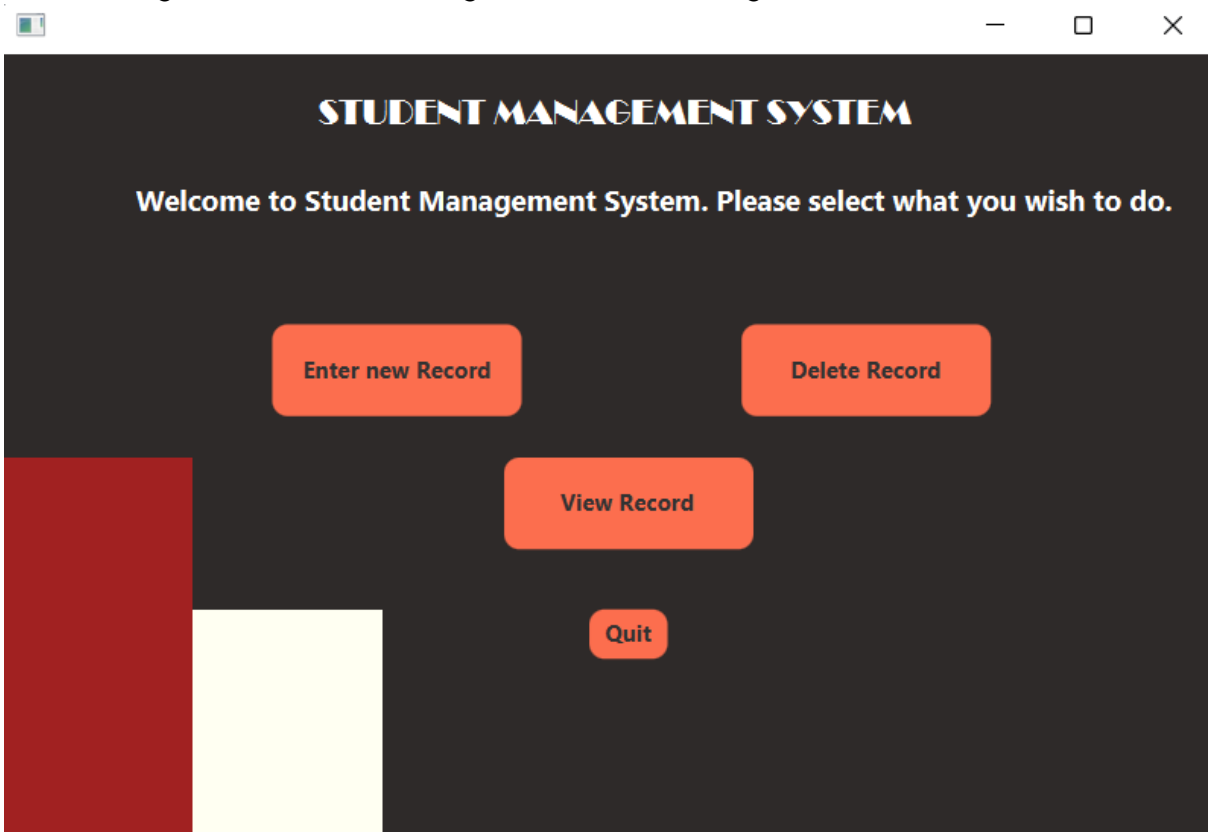
2. Admin Login Screen-: This screen allows the user to login the system if he already has credentials.



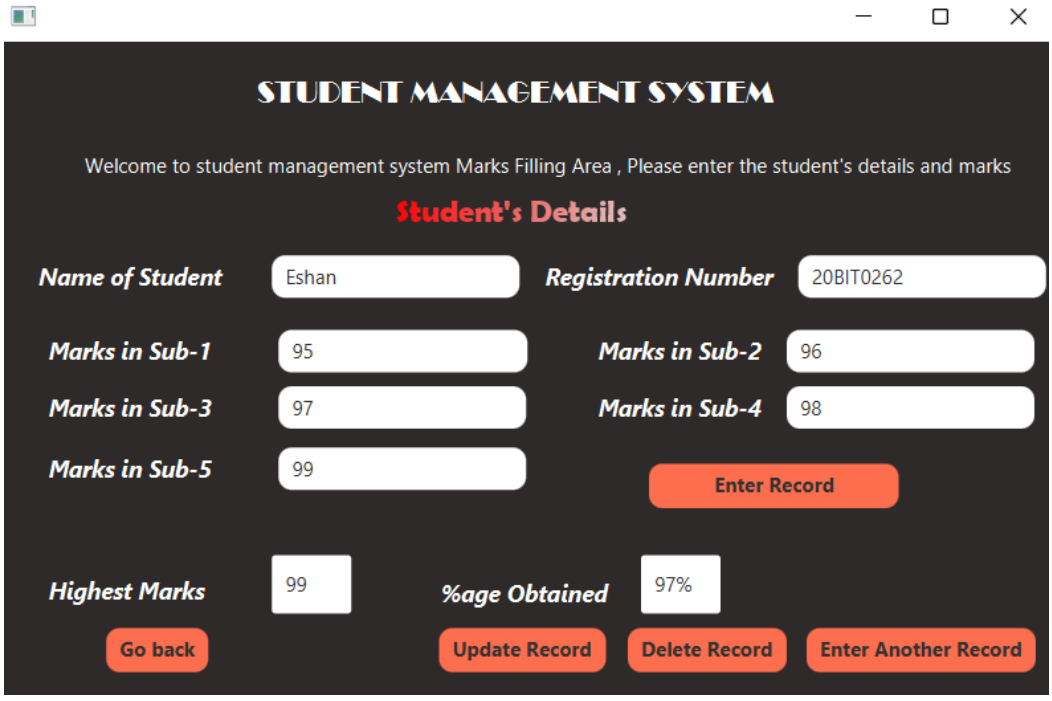
3. Admin Signup Screen-: This screen allows the admin or the faculty to sign up using a verification code.



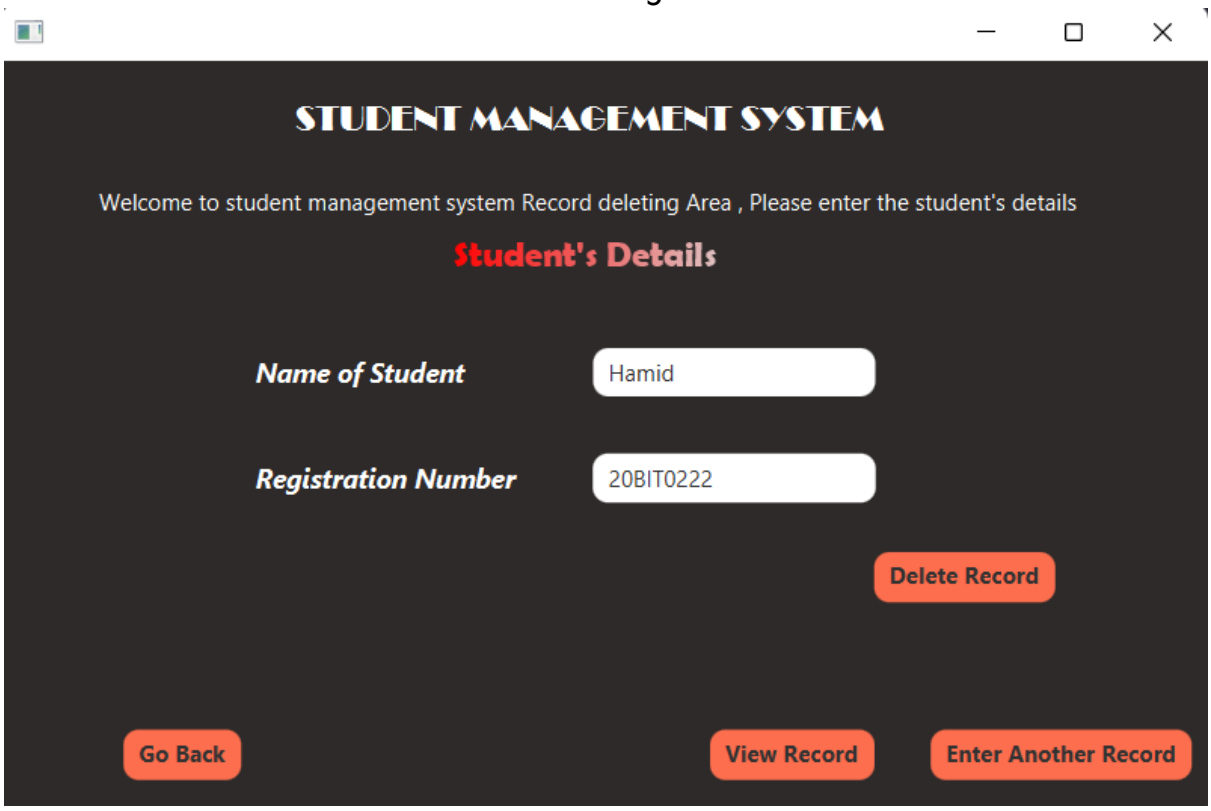
4. Admin Menu Screen-: This screen displays all the available options to the admin like Entering New Record, Deleting Record and Viewing Records.



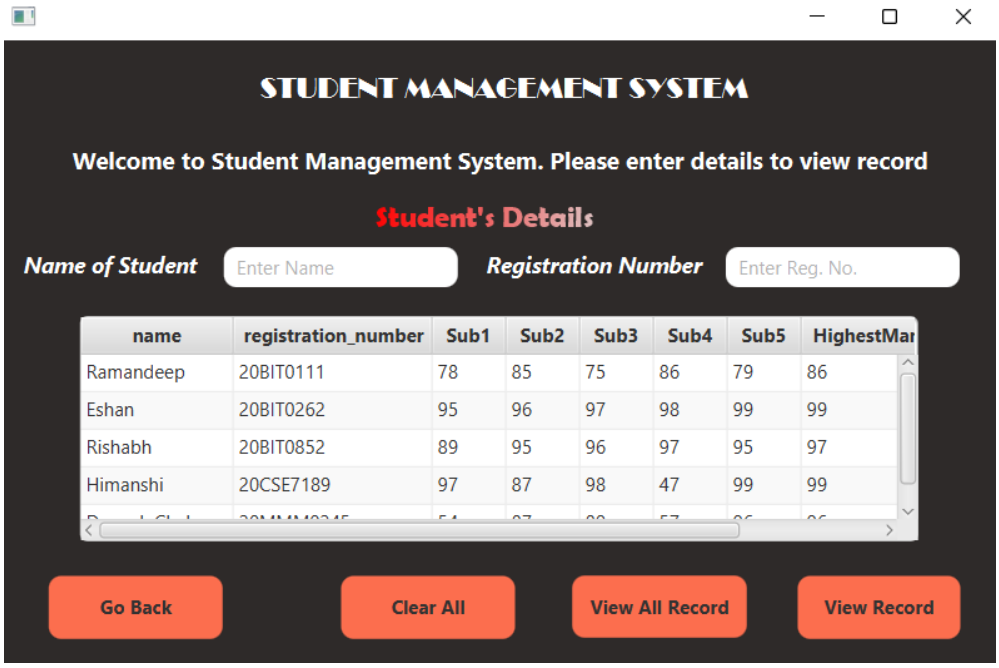
5. Enter New Record Screen Admin-: In this screen the admin is allowed to enter the records of a student and this screen automatically calculates the percentage and highest marks of the student and displays and sends it to the database. The admin also gets the option to update a record or navigating to delete record page.



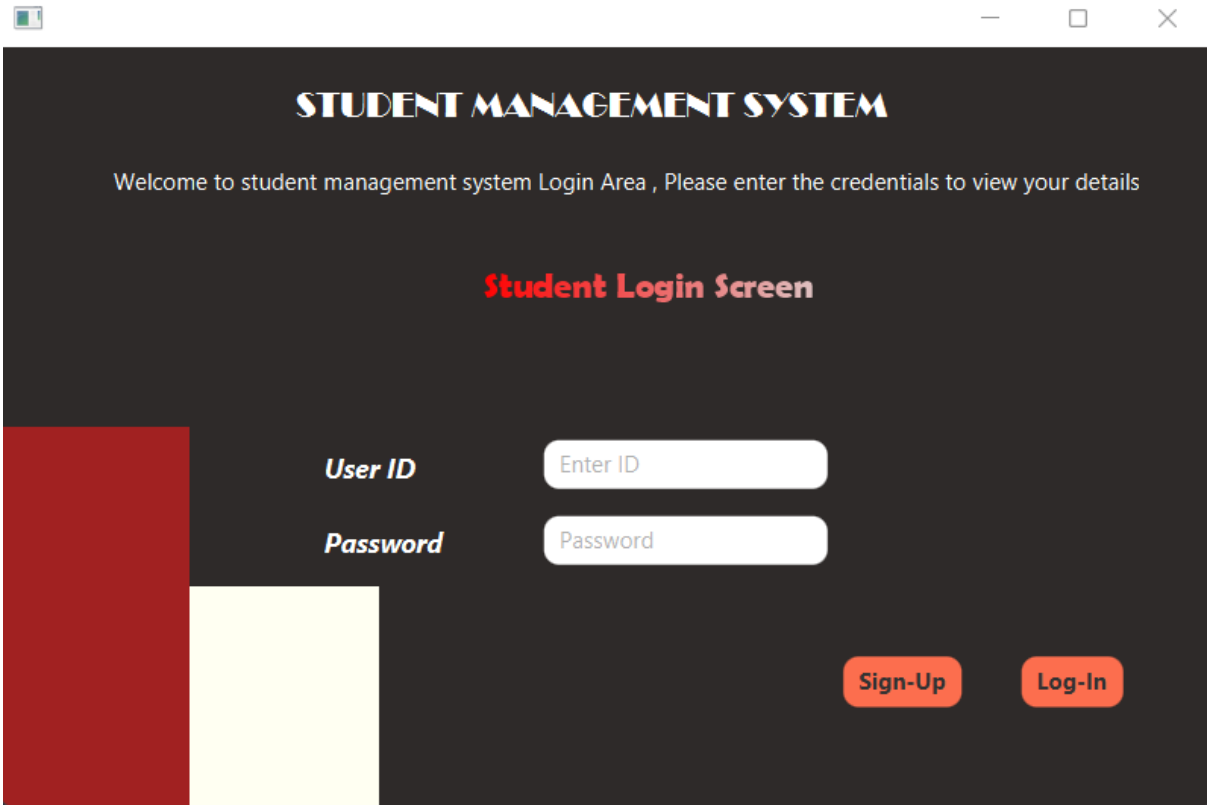
6. Delete Record Screen Admin-: In this screen the admin is allowed to update the records of the student in case he entered wrong marks.



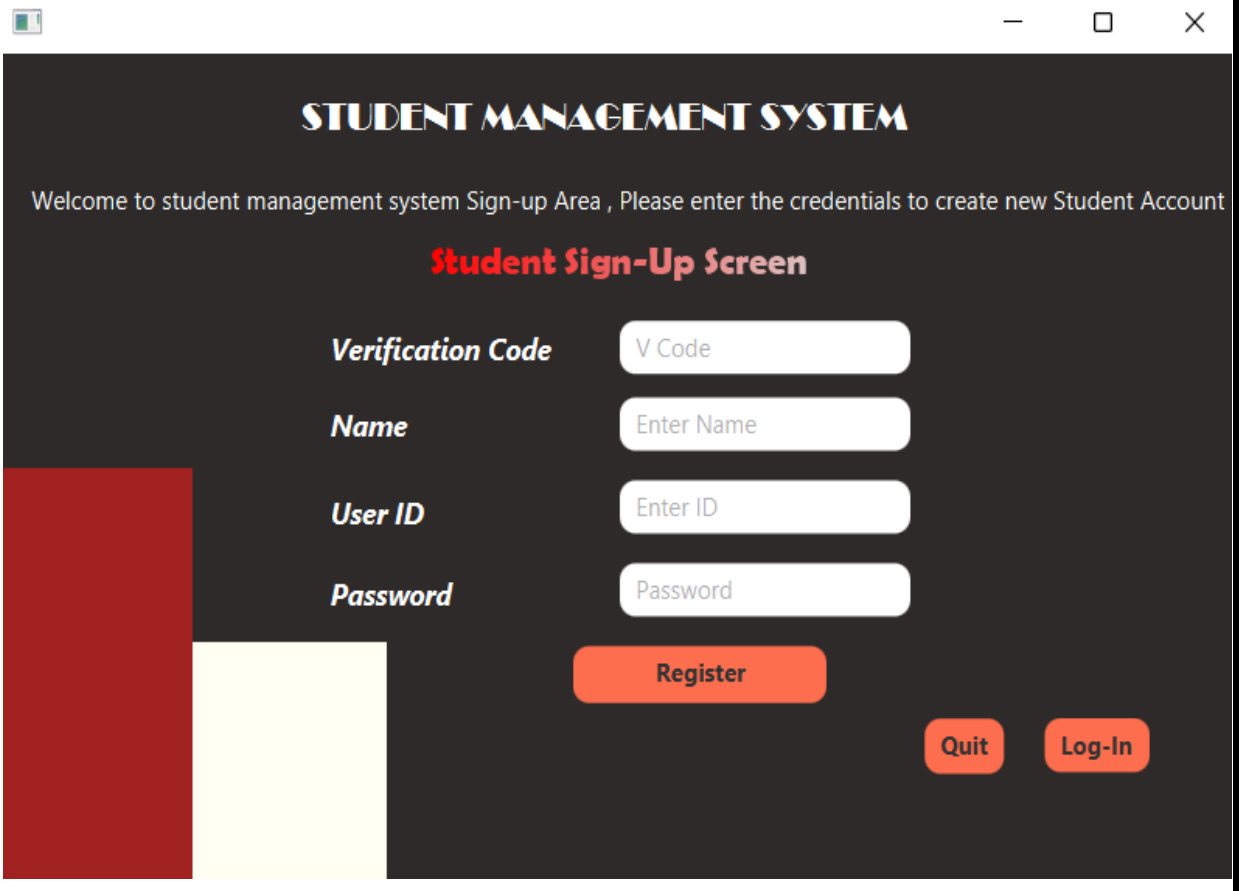
7. View Record Screen Admin-: In this screen the admin is allowed to see all the records he has entered at once in the form of a table or one student at a time. Also the admin has the option to clear table.



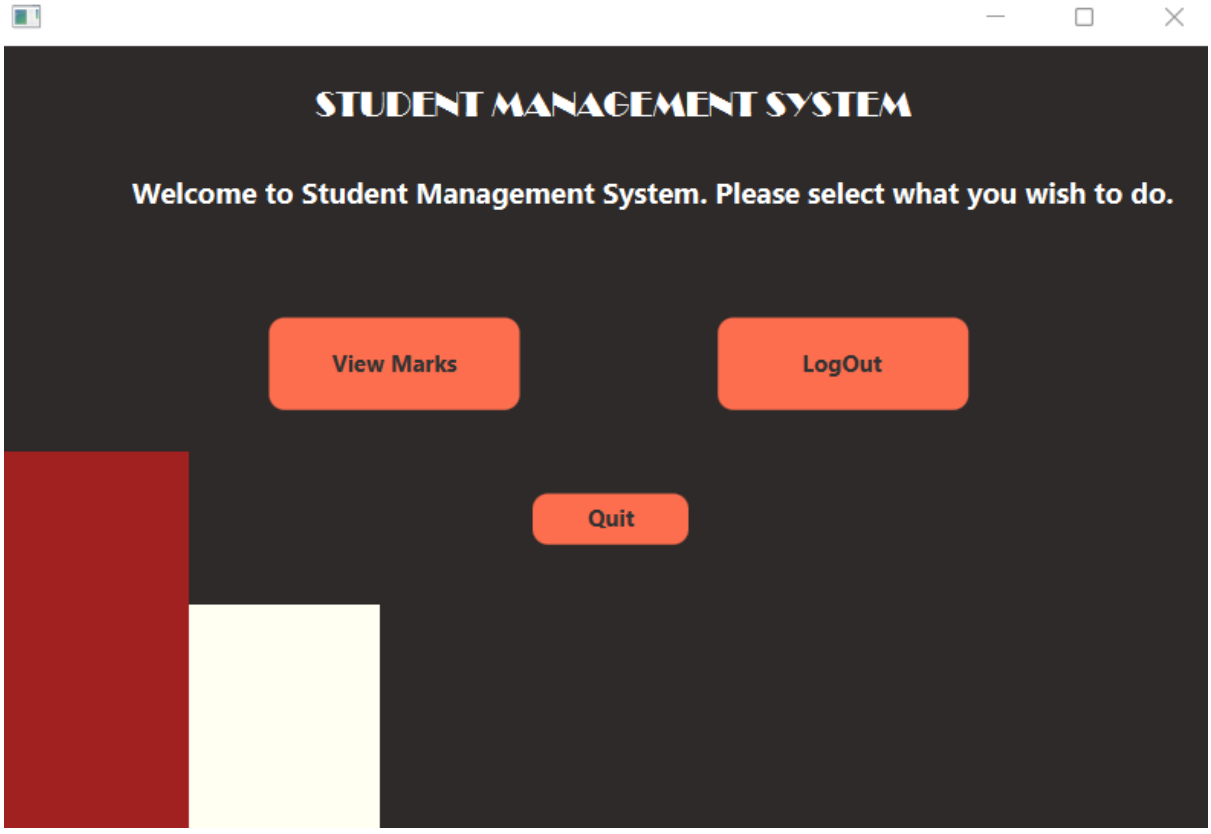
8. Student Login Screen-: This screen where a student can login with his credentials.



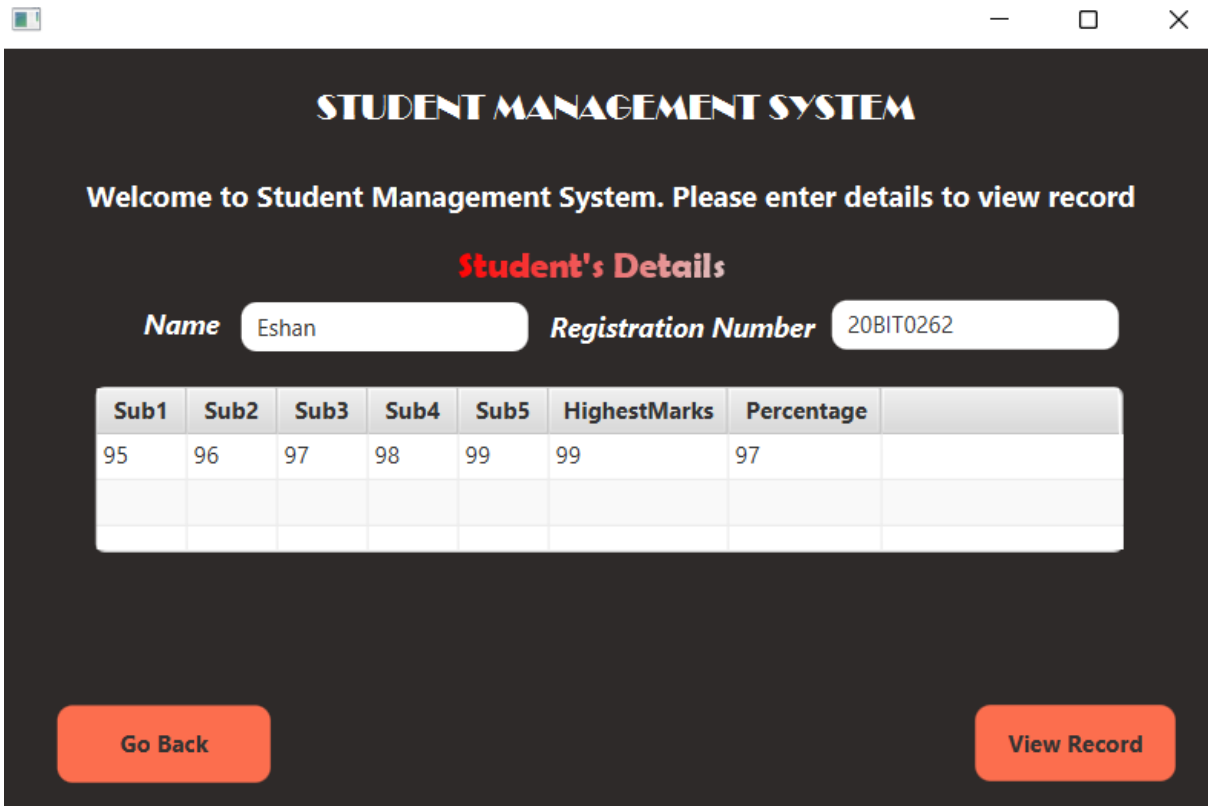
9. Student SignUp Screen-: This screen allows student to generate credentials using a verification code.



10. Student Option Screen-: Here the student gets option to view his marks or logout.



11. ViewMarks Student Screen-: Here the student can see his marks if and only if the faculty or admin has uploaded the marks.



These were the screens of the application with the basic intro with this the projects also consists of things like form validation and negative marks validation.

Hardware Specifications-:

For running the project you need

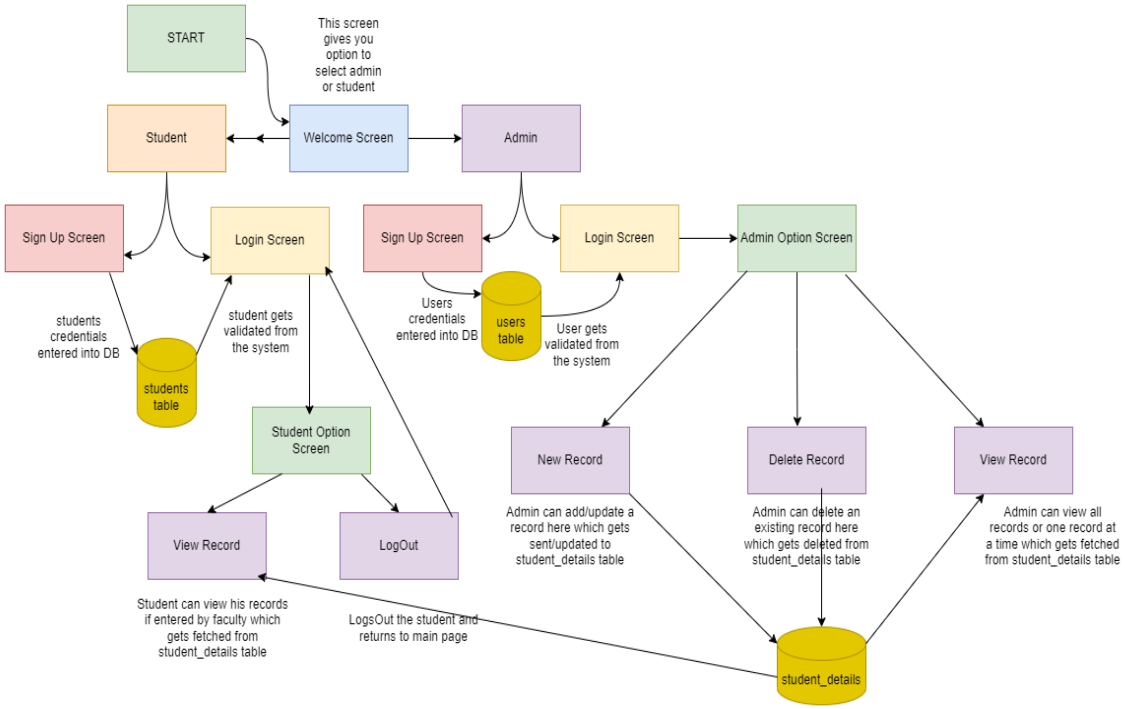
- Intel core i5 10th gen
- NVIDIA graphic card – 4GB

Software Specifications-:

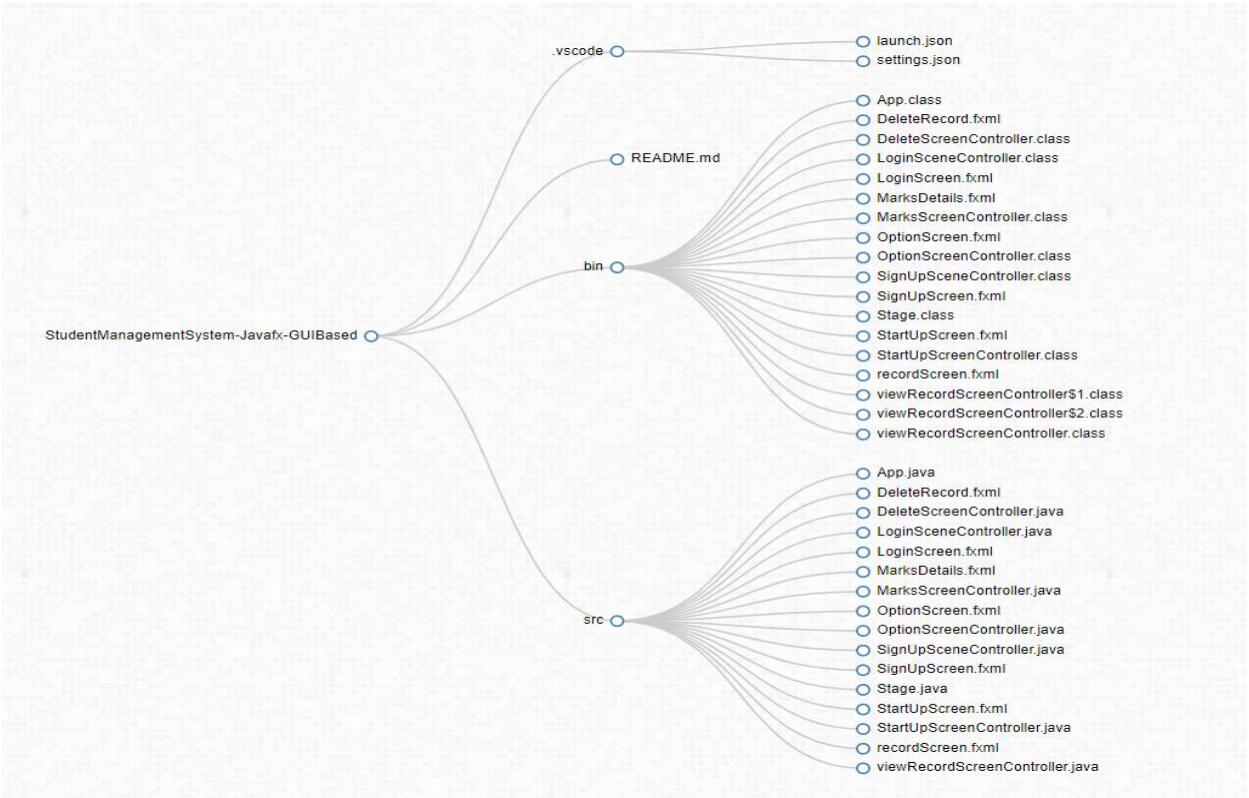
For running the project you need

- VS CODE
- Scene Builder v17.0.0
- JAVA OpenJDK – v17.0.1
- JAVAFX SDK – v17.0.1
- MySQL – v3+
- MySQL Connector Java – v.0.27
- VM options:
- Main Class:
    - App.java

Architectures – DFD



Project Structure(Modules)-:



Experimental Analysis-:

Code-:

1. **App.java-:**

```
import java.io.IOException;
import javafx.application.Application;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.stage.Stage;

public class App extends Application {
    Parent root;
    @Override
    public void start(Stage primaryStage) {
        try {
            root =
FXMLLoader.load(getClass().getResource("StartUpScreen.fxml"));
            Scene scene = new Scene(root);
            primaryStage.setScene(scene);
            primaryStage.show();
        } catch (IOException e) {
            System.out.println(e);
        }
    }

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

2. **StartupScreen.fxml (The welcome Screen)**

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="StartUpScreenController">
   <children>
```

```
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="135.0" layoutY="20.0" prefHeight="58.0"
prefWidth="387.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="22.0" />
               </font>
            </Label>
            <Label layoutX="129.0" layoutY="103.0" prefHeight="50.0"
prefWidth="400.0" text="Welcome to STUDENT MANAGEMENT SYSTEM ."
textFill="WHITE">
               <font>
                  <Font name="Algerian" size="18.0" />
               </font></Label>
            <Button fx:id="admin" layoutX="120.0" layoutY="209.0"
mnemonicParsing="false" onAction="#adminPageacess" prefHeight="50.0"
prefWidth="100.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Admin" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <VBox layoutY="200.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="284.0" prefHeight="115.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
            <Button fx:id="student" layoutX="422.0" layoutY="209.0"
mnemonicParsing="false" onAction="#studentpageAcess" prefHeight="50.0"
prefWidth="100.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Student" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
         </children>
      </AnchorPane>
   </children>
</VBox>
```

StartupScreenController.java-:

```
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
```

```
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TextField;
import java.io.IOException;
import javafx.stage.Stage;
public class StartUpScreenController {

    @FXML
    private Button admin;

    @FXML
    private Button student;

    @FXML
    void adminPageacess(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("LoginScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void studentpageAcess(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("StudentLoginScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

}
```

3. **LoginScreen.fxml (Admin Login Sreen)**

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
```

```
<?import javafx.scene.control.PasswordField?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="LoginSceneController">
  <children>
    <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
      <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="26.0" layoutY="62.0" text="Welcome to student
management system Login Area , Please enter the credentials to enter the
student's marks" textFill="WHITE" />
            <Label layoutX="274.0" layoutY="112.0" prefHeight="23.0"
prefWidth="116.0" text="Login Screen" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
```

```
            </Label>
            <Label layoutX="171.0" layoutY="212.0" text="User ID"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font></Label>
            <Label layoutX="171.0" layoutY="251.0" text="Password"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font></Label>
            <Button fx:id="logIn" layoutX="539.0" layoutY="321.0"
mnemonicParsing="false" onAction="#loginUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Log-In" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font></Button>
            <TextField fx:id="userId" layoutX="287.0" layoutY="207.0"
promptText="Enter ID" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <VBox layoutY="200.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="284.0" prefHeight="115.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
            <PasswordField fx:id="password" layoutX="287.0" layoutY="247.0"
promptText="Password" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="signup" layoutX="445.0" layoutY="321.0"
mnemonicParsing="false" onAction="#signupUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Sign-Up" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
      </children>
    </AnchorPane>
  </children>
</VBox>
```

LoginScreenContoller.java-:

```
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.swing.JOptionPane;
```

```
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.PasswordField;
import javafx.scene.control.TextField;
import javafx.stage.Stage;

public class LoginSceneController {

    @FXML
    private Button logIn;

    @FXML
    private PasswordField password;

    @FXML
    private Button signup;

    @FXML
    private TextField userId;

    Connection con;
    PreparedStatement pst;
    ResultSet rs;

    @FXML
    void loginUser(ActionEvent event) {
        String a = userId.getText();
        String b = password.getText();
        if (a.equals("") && b.equals("")) {
            JOptionPane.showMessageDialog(null, "Username or Password Blank",
"Ooooops!!!", 0);
        } else {
            try {
                Class.forName("com.mysql.cj.jdbc.Driver");
                con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
                pst = con.prepareStatement("select * from users where
username_=? and password_=?");
                pst.setString(1, a);
                pst.setString(2, b);
                rs = pst.executeQuery();
                if (rs.next()) {
```

```
                    JOptionPane.showMessageDialog(null, "Success", "Login
Success", 1);
                    Parent root =
FXMLLoader.load(getClass().getResource("OptionScreen.fxml"));
                    Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
                    Scene scene = new Scene(root);
                    stage.setScene(scene);
                    stage.show();
                } else {
                    JOptionPane.showMessageDialog(null, "Check the
credentials", "Login Failure", 0);
                    userId.setText("");
                    password.setText("");
                    userId.requestFocus();
                }
            } catch (Exception e) {
                System.out.println(e);
            }
        }

    }

    @FXML
    void signupUser(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("SignUpScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

}
```

4. **SignUpScreen.fxml (Admin SignupScreen)-:**

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.PasswordField?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
```

```
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="SignUpSceneController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="35.0" layoutY="62.0" text="Welcome to student
management system Sign-up Area , Please enter the credentials to create new
Account" textFill="WHITE" />
            <Label layoutX="254.0" layoutY="89.0" prefHeight="23.0"
prefWidth="130.0" text="Sign-Up Screen" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="171.0" layoutY="212.0" text="User ID"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
```

```
               </font>
            </Label>
            <Label layoutX="171.0" layoutY="251.0" text="Password"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Button fx:id="logIn" layoutX="539.0" layoutY="321.0"
mnemonicParsing="false" onAction="#loginUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Log-In" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <TextField fx:id="userId" layoutX="320.0" layoutY="206.0"
promptText="Enter ID" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <VBox layoutY="200.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="284.0" prefHeight="115.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
            <PasswordField fx:id="password" layoutX="320.0" layoutY="246.0"
promptText="Password" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="quit" layoutX="477.0" layoutY="321.0"
mnemonicParsing="false" onAction="#exit" style="-fx-background-color: #fc6e4e;
-fx-background-radius: 8;" text="Quit" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Label layoutX="171.0" layoutY="170.0" text="Name"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="name" layoutX="320.0" layoutY="166.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="register" layoutX="296.0" layoutY="286.0"
mnemonicParsing="false" onAction="#register" prefHeight="26.0"
prefWidth="130.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Register" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
```

```
            </Button>
            <Label layoutX="171.0" layoutY="133.0" text="Verification Code"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="Vcode" layoutX="320.0" layoutY="129.0"
promptText="V Code" style="-fx-background-color: white; -fx-background-radius:
8px;" />
         </children>
      </AnchorPane>
   </children>
</VBox>
```

SignUpScreencontroller.java-:

```
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.swing.JOptionPane;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.PasswordField;
import javafx.scene.control.TextField;
import javafx.stage.Stage;
import javafx.scene.Node;

public class SignUpSceneController {

    @FXML
    private TextField Vcode;

    @FXML
    private Button logIn;

    @FXML
    private TextField name;

    @FXML
    private PasswordField password;
```

```
    @FXML
    private Button quit;

    @FXML
    private TextField userId;

    @FXML
    private Button register;

    @FXML
    void loginUser(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("LoginScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void exit(ActionEvent event) {
        System.exit(0);
    }

    @FXML
    void register(ActionEvent event) {
        String a = userId.getText();
        String b = password.getText();
        String c = name.getText();
        String d = Vcode.getText();
        if (a.equals("") || b.equals("") || c.equals("")) {
            JOptionPane.showMessageDialog(null, "One or more fields Blank",
"Ooooops!!!", 0);
        } else {
            try {
                if( d.equals("admin123")){
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
                        "eventour2020");
                Statement s = con.createStatement();
                String s1 = "insert into users(username_,password_,name)
values('" + a + "','" + b + "','" + c + "');";
                JOptionPane.showMessageDialog(null, "Registered new user
Successfully", "Login Success", 1);
                System.out.println("Success");
                s.executeUpdate(s1);
```

```
                }else{
                    JOptionPane.showMessageDialog(null, "Invalid Verification
Code", "Unauthorised personnel!!!", 0);
                }
            } catch (Exception e) {
                System.out.println(e);
            }
        }
    }

}
```

5. OptionScreen.fxml (The admin Option Screen)-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="OptionScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="166.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="70.0" layoutY="66.0" text="Welcome to Student
Management System. Please select what you wish to do." textFill="WHITE">
               <font>
                  <Font name="System Bold" size="15.0" />
               </font></Label>
            <Button fx:id="exit" layoutX="309.0" layoutY="292.0"
mnemonicParsing="false" onAction="#quit" style="-fx-background-color: #fc6e4e;
-fx-background-radius: 8;" text="Quit" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
```

```
            </Button>
            <Button fx:id="delete1" layoutX="389.0" layoutY="142.0"
mnemonicParsing="false" onAction="#deleterecord" prefHeight="47.0"
prefWidth="131.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Delete Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="newrecord" layoutX="142.0" layoutY="142.0"
mnemonicParsing="false" onAction="#enterrecord" prefHeight="47.0"
prefWidth="131.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Enter new Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="viewrec" layoutX="264.0" layoutY="212.0"
mnemonicParsing="false" onAction="#viewrecord" prefHeight="47.0"
prefWidth="131.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="View Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <VBox layoutY="212.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="292.0" prefHeight="121.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
         </children>
      </AnchorPane>
   </children>
</VBox>
```

OptionScreenCOntroller.java-:

```
import java.io.IOException;

import javax.swing.JOptionPane;

import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
```

```
import javafx.scene.control.Button;
import javafx.stage.Stage;

public class OptionScreenController {

    @FXML
    private Button delete1;

    @FXML
    private Button exit;

    @FXML
    private Button newrecord;

    @FXML
    private Button viewrec;

    @FXML
    void deleterecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("DeleteRecord.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void enterrecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("MarksDetails.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void quit(ActionEvent event) {
        System.exit(0);
    }

    @FXML
    void viewrecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("recordScreen.fxml"));
```

```
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

}
```

6. **MarksDetails.fxml-:**

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="MarksScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="52.0" layoutY="66.0" text="Welcome to student
management system Marks Filling Area , Please enter the student's details and
marks" textFill="WHITE" />
            <Label layoutX="240.0" layoutY="91.0" prefHeight="23.0"
prefWidth="160.0" text="Student's Details" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
```

```
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="24.0" layoutY="132.0" text="Name of Student"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="330.0" layoutY="132.0" text="Registration Number"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Button fx:id="record" layoutX="393.0" layoutY="255.0"
mnemonicParsing="false" onAction="#recordentered" prefHeight="26.0"
prefWidth="150.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Enter Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <TextField fx:id="studentname" layoutX="165.0" layoutY="129.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="newrecord" layoutX="488.0" layoutY="354.0"
mnemonicParsing="false" onAction="#enternewrecord" style="-fx-background-
color: #fc6e4e; -fx-background-radius: 8;" text="Enter Another Record"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
```

```
               </font>
            </Button>
            <TextField fx:id="registrationnumber" layoutX="483.0"
layoutY="129.0" promptText="Enter Reg. No." style="-fx-background-color:
white; -fx-background-radius: 8px;" />
            <Label layoutX="30.0" layoutY="177.0" text="Marks in Sub-1"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="362.0" layoutY="177.0" text="Marks in Sub-2"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="362.0" layoutY="211.0" text="Marks in Sub-4"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="30.0" layoutY="211.0" text="Marks in Sub-3"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="30.0" layoutY="248.0" text="Marks in Sub-5"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="m1" layoutX="169.0" layoutY="174.0"
prefHeight="10.0" prefWidth="150.0" promptText="Enter Marks" style="-fx-
background-color: white; -fx-background-radius: 8px;" />
            <TextField fx:id="m2" layoutX="476.0" layoutY="174.0"
promptText="Enter Marks" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <TextField fx:id="m4" layoutX="476.0" layoutY="208.0"
promptText="Enter Marks" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <TextField fx:id="m3" layoutX="169.0" layoutY="208.0"
promptText="Enter Marks" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
```

```
            <TextField fx:id="highest" layoutX="165.0" layoutY="310.0"
prefHeight="35.0" prefWidth="48.0" style="-fx-background-color: white; -fx-
background-radius: 2px;" />
            <Label layoutX="30.0" layoutY="322.0" prefHeight="20.0"
prefWidth="111.0" text="Highest Marks" textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="267.0" layoutY="323.0" text="\%age Obtained"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="percentage" layoutX="388.0" layoutY="310.0"
prefHeight="35.0" prefWidth="48.0" style="-fx-background-color: white; -fx-
background-radius: 2px;" />
            <TextField fx:id="m5" layoutX="169.0" layoutY="245.0"
promptText="Enter Marks" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="delete" layoutX="380.0" layoutY="354.0"
mnemonicParsing="false" onAction="#deleterecord" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Delete Record"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="exit" layoutX="65.0" layoutY="354.0"
mnemonicParsing="false" onAction="#quit" style="-fx-background-color: #fc6e4e;
-fx-background-radius: 8;" text="Go back" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="update" layoutX="266.0" layoutY="354.0"
mnemonicParsing="false" onAction="#updaterecord" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Update Record"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
         </children>
      </AnchorPane>
   </children>
</VBox>
```

MarksScreenController.java-:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TextField;
import javafx.stage.Stage;
import java.io.IOException;

public class MarksScreenController {

    @FXML
    private Button delete;

    @FXML
    private Button exit;

    @FXML
    private TextField highest;

    @FXML
    private TextField m1;

    @FXML
    private TextField m2;

    @FXML
    private TextField m3;

    @FXML
    private TextField m4;

    @FXML
    private TextField m5;

    @FXML
    private Button newrecord;

    @FXML
    private TextField percentage;
```

```
    @FXML
    private Button record;

    @FXML
    private TextField registrationnumber;

    @FXML
    private TextField studentname;

    @FXML
    private Button update;

    @FXML
    void recordentered(ActionEvent event) throws ClassNotFoundException,
SQLException {
        String name = studentname.getText();
        String reg_no = registrationnumber.getText();
        int mark1 = Integer.valueOf(m1.getText());
        int mark2 = Integer.valueOf(m2.getText());
        int mark3 = Integer.valueOf(m3.getText());
        int mark4 = Integer.valueOf(m4.getText());
        int mark5 = Integer.valueOf(m5.getText());
        int[] marks = new int[5];
        marks[0] = mark1;
        marks[1] = mark2;
        marks[2] = mark3;
        marks[3] = mark4;
        marks[4] = mark5;
        int max_mark = 0;
        for (int i = 0; i < marks.length; i++) {
            if (marks[i] > max_mark) {
                max_mark = marks[i];
            }
        }
        int percentage_marks = (mark1 + mark2 + mark3 + mark4 + mark5) / 5;
        // highest.setText(String.valueOf(max_mark));
        // percentage.setText(String.valueOf(percentage_marks));
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
        Statement s = con.createStatement();
        String s1 = "insert into
student_details(name,registration_number,Sub1,Sub2,Sub3,Sub4,Sub5,HighestMarks
,Percentage) values('"
                + name + "','" + reg_no + "','" + mark1 + "','" + mark2 +
"','" + mark3 + "','" + mark4 + "','" + mark5
```

```
                + "','" + max_mark + "','" + percentage_marks + "');";
        highest.setText(String.valueOf(max_mark));
        percentage.setText(String.valueOf(percentage_marks + "%"));
        JOptionPane.showMessageDialog(null, "Entered all records!!!", "Record
Entry Success!!!", 1);
        s.executeUpdate(s1);
    }

    @FXML
    void enternewrecord(ActionEvent event) {
        studentname.setText("");
        registrationnumber.setText("");
        m1.setText("");
        m2.setText("");
        m3.setText("");
        m4.setText("");
        m5.setText("");
        highest.setText("");
        percentage.setText("");
    }

    @FXML
    void quit(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("OptionScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void deleterecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("DeleteRecord.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void updaterecord(ActionEvent event) throws
ClassNotFoundException,SQLException {
        String name = studentname.getText();
        String reg_no = registrationnumber.getText();
```

```
        int mark1 = Integer.valueOf(m1.getText());
        int mark2 = Integer.valueOf(m2.getText());
        int mark3 = Integer.valueOf(m3.getText());
        int mark4 = Integer.valueOf(m4.getText());
        int mark5 = Integer.valueOf(m5.getText());
        int[] marks = new int[5];
        marks[0] = mark1;
        marks[1] = mark2;
        marks[2] = mark3;
        marks[3] = mark4;
        marks[4] = mark5;
        int max_mark = 0;
        for (int i = 0; i < marks.length; i++) {
            if (marks[i] > max_mark) {
                max_mark = marks[i];
            }
        }
        int percentage_marks = (mark1 + mark2 + mark3 + mark4 + mark5) / 5;
        // highest.setText(String.valueOf(max_mark));
        // percentage.setText(String.valueOf(percentage_marks));
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
        Statement s = con.createStatement();
        String s1 = "Update student_details Set Sub1="+mark1+",
Sub2="+mark2+", Sub3="+mark3+", Sub4="+mark4+", Sub5="+mark5+",
HighestMarks="+max_mark+", Percentage="+percentage_marks+" where
registration_number='"+reg_no+"';";
        System.out.println(s1);
        highest.setText(String.valueOf(max_mark));
        percentage.setText(String.valueOf(percentage_marks + "%"));
        int result = s.executeUpdate(s1);
        JOptionPane.showMessageDialog(null, "Updated records!!!", "Record
Updation Success!!!", 1);
    }


}
```

7. **DeleteRecord.fxml-:**

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
```

```
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1" fx:controller="DeleteScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="52.0" layoutY="66.0" text="Welcome to student
management system Record deleting Area , Please enter the student's details "
textFill="WHITE" />
            <Label layoutX="240.0" layoutY="91.0" prefHeight="23.0"
prefWidth="160.0" text="Student's Details" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
```

```
            <Label layoutX="135.0" layoutY="155.0" text="Name of Student"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="135.0" layoutY="211.0" text="Registration Number"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="studentname" layoutX="314.0" layoutY="152.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="newrecord" layoutX="493.0" layoutY="354.0"
mnemonicParsing="false" onAction="#enternewrecord" style="-fx-background-
color: #fc6e4e; -fx-background-radius: 8;" text="Enter Another Record"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <TextField fx:id="registrationnumber" layoutX="314.0"
layoutY="208.0" promptText="Enter Reg. No." style="-fx-background-color:
white; -fx-background-radius: 8px;" />
            <Button fx:id="delete" layoutX="463.0" layoutY="260.0"
mnemonicParsing="false" onAction="#deleterecord" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Delete Record"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="exit" layoutX="65.0" layoutY="354.0"
mnemonicParsing="false" onAction="#quit" style="-fx-background-color: #fc6e4e;
-fx-background-radius: 8;" text="Go Back" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="newrecord1" layoutX="376.0" layoutY="354.0"
mnemonicParsing="false" onAction="#viewrecord" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="View Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
```

```
         </children>
      </AnchorPane>
   </children>
</VBox>
```

DeleteScreenContoller.java-:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TextField;
import javafx.stage.Stage;
import java.io.IOException;

public class DeleteScreenController {

    @FXML
    private Button delete;

    @FXML
    private Button exit;

    @FXML
    private Button newrecord;

    @FXML
    private Button newrecord1;

    @FXML
    private TextField registrationnumber;

    @FXML
    private TextField studentname;

    @FXML
    void deleterecord(ActionEvent event) throws ClassNotFoundException,
SQLException {
        String name = studentname.getText();
```

```
        String regno = registrationnumber.getText();
        System.out.println(name+" "+registrationnumber);
        if (name != "" || regno != "") {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
                    "eventour2020");
            Statement s = con.createStatement();
            regno="'"+regno+"'";
            String s1 = "delete from student_details where
registration_number=" + regno + ';';
            studentname.setText("");
            registrationnumber.setText("");
            JOptionPane.showMessageDialog(null, "Deleted Record",
"Success!!!", 1);
            s.executeUpdate(s1);
        }else{
            JOptionPane.showMessageDialog(null, "Field Empty", "Error!!!", 0);
        }
    }

    @FXML
    void enternewrecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("MarksDetails.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void quit(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("OptionScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void viewrecord(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("recordScreen.fxml"));
```

```
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

}
```

8. ViewRecordScreen.fxml-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TableView?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="viewRecordScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="476.0"
prefWidth="751.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="166.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="46.0" layoutY="66.0" text="Welcome to Student
Management System. Please enter details to view record" textFill="WHITE">
               <font>
                  <Font name="System Bold" size="15.0" />
               </font>
            </Label>
            <Button fx:id="viewall" layoutX="366.0" layoutY="342.0"
mnemonicParsing="false" onAction="#viewallrecord" prefHeight="39.0"
```

```
prefWidth="111.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="View All Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="viewrec" layoutX="510.0" layoutY="342.0"
mnemonicParsing="false" onAction="#viewrecord" prefHeight="39.0"
prefWidth="104.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="View Record" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Label layoutX="240.0" layoutY="101.0" prefHeight="23.0"
prefWidth="160.0" text="Student's Details" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="15.0" layoutY="134.0" text="Name of Student"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="311.0" layoutY="134.0" text="Registration Number"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
```

```
               </font>
            </Label>
            <TextField fx:id="studentname" layoutX="143.0" layoutY="132.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <TextField fx:id="registrationnumber" layoutX="464.0"
layoutY="132.0" promptText="Enter Reg. No." style="-fx-background-color:
white; -fx-background-radius: 8px;" />
            <TableView fx:id="table" layoutX="51.0" layoutY="176.0"
prefHeight="144.0" prefWidth="536.0" style="-fx-background-radius: 5px;" />
            <Button fx:id="exit1" layoutX="31.0" layoutY="342.0"
mnemonicParsing="false" onAction="#quit" prefHeight="39.0" prefWidth="111.0"
style="-fx-background-color: #fc6e4e; -fx-background-radius: 8;" text="Go
Back" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="clear" layoutX="218.0" layoutY="342.0"
mnemonicParsing="false" onAction="#clearall" prefHeight="39.0"
prefWidth="111.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Clear All" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
         </children>
      </AnchorPane>
   </children>
</VBox>
```

viewRecordScreenController.java-:

```
import java.io.IOException;
import java.sql.*;
import javax.swing.JOptionPane;
import javafx.beans.property.SimpleStringProperty;
import javafx.beans.value.ObservableValue;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TextField;
```

```
import javafx.scene.control.TableColumn.CellDataFeatures;
import javafx.util.Callback;
import javafx.scene.control.TableColumn;
import javafx.scene.control.TableView;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import javafx.scene.Node;
import javafx.stage.Stage;
public class viewRecordScreenController {

    @FXML
    private Button exit;

    @FXML
    private Button viewall;

    @FXML
    private TextField registrationnumber;

    @FXML
    private TextField studentname;

    @FXML
    private TableView<?> table;
    @FXML
    private Button viewrec;
    @FXML
    private Button clear;

    @FXML
    void clearall(ActionEvent event) {
        table.getColumns().clear();
        table.getItems().clear();
    }

    @FXML
    void quit(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("OptionScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
```

```
    void viewrecord(ActionEvent event) throws ClassNotFoundException,
SQLException {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
        String a = '"' + studentname.getText() + '"';
        String b = '"' + registrationnumber.getText() + '"';
        if (studentname.getText().toString().length() != 0 &&
registrationnumber.getText().toString().length() != 0) {
            String s1 = "Select
sub1,sub2,sub3,sub4,sub5,HighestMarks,Percentage from student_details where
name=" + a
                    + "and registration_number=" + b;
            ResultSet rsSet = con.createStatement().executeQuery(s1);
            ObservableList data = FXCollections.observableArrayList();
            for (int i = 0; i < rsSet.getMetaData().getColumnCount(); i++) {
                // We are using non property style for making dynamic table
                final int j = i;
                TableColumn col = new
TableColumn(rsSet.getMetaData().getColumnName(i + 1));
                col.setCellValueFactory(
                        new Callback<CellDataFeatures<ObservableList, String>,
ObservableValue<String>>() {
                            public ObservableValue<String>
call(CellDataFeatures<ObservableList, String> param) {
                                return new
SimpleStringProperty(param.getValue().get(j).toString());
                            }
                        });
                table.getColumns().addAll(col);
            }

            while (rsSet.next()) {
                // Iterate Row
                ObservableList<String> row =
FXCollections.observableArrayList();
                for (int i = 1; i <= rsSet.getMetaData().getColumnCount();
i++) {
                    // Iterate Column
                    row.add(rsSet.getString(i));
                }
                data.add(row);
            }
            table.setItems(data);
        } else {
            JOptionPane.showMessageDialog(null, "Error!!!", "Credentials
Empty", 0);
```

```
        }
    }

    @FXML
    void viewallrecord(ActionEvent event) throws ClassNotFoundException,
SQLException {
        table.refresh();
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
        String s1 = "Select * from student_details;";
        ResultSet rsSet = con.createStatement().executeQuery(s1);
        ObservableList data = FXCollections.observableArrayList();
        for (int i = 0; i < rsSet.getMetaData().getColumnCount(); i++) {
            // We are using non property style for making dynamic table
            final int j = i;
            TableColumn col = new
TableColumn(rsSet.getMetaData().getColumnName(i + 1));
            col.setCellValueFactory(
                    new Callback<CellDataFeatures<ObservableList, String>,
ObservableValue<String>>() {
                        public ObservableValue<String>
call(CellDataFeatures<ObservableList, String> param) {
                            return new
SimpleStringProperty(param.getValue().get(j).toString());
                        }
                    });
            table.getColumns().addAll(col);
        }

        while (rsSet.next()) {
            // Iterate Row
            ObservableList<String> row = FXCollections.observableArrayList();
            for (int i = 1; i <= rsSet.getMetaData().getColumnCount(); i++) {
                // Iterate Column
                row.add(rsSet.getString(i));
            }
            data.add(row);
        }
        table.setItems(data);
    }

}
```

9. StudentLoginSceneController.fxml-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.PasswordField?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="StudentLoginSceneController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="60.0" layoutY="62.0" text="Welcome to student
management system Login Area , Please enter the credentials to view your
details" textFill="WHITE" />
            <Label layoutX="255.0" layoutY="114.0" prefHeight="23.0"
prefWidth="181.0" text="Student Login Screen" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
```

```
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="171.0" layoutY="212.0" text="User ID"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="171.0" layoutY="251.0" text="Password"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Button fx:id="logIn" layoutX="539.0" layoutY="321.0"
mnemonicParsing="false" onAction="#loginUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Log-In" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <TextField fx:id="userId" layoutX="287.0" layoutY="207.0"
promptText="Enter ID" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <VBox layoutY="200.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="284.0" prefHeight="115.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
            <PasswordField fx:id="password" layoutX="287.0" layoutY="247.0"
promptText="Password" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="signup" layoutX="445.0" layoutY="321.0"
mnemonicParsing="false" onAction="#signupUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Sign-Up" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
         </children>
      </AnchorPane>
   </children>
```

```
</VBox>
```

StudenLoginSceneController.java

```
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.swing.JOptionPane;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.PasswordField;
import javafx.scene.control.TextField;
import javafx.stage.Stage;

public class StudentLoginSceneController {

    @FXML
    private Button logIn;

    @FXML
    private PasswordField password;

    @FXML
    private Button signup;

    @FXML
    private TextField userId;

    Connection con;
    PreparedStatement pst;
    ResultSet rs;

    @FXML
    void loginUser(ActionEvent event) {
        String a = userId.getText();
        String b = password.getText();
        if (a.equals("") && b.equals("")) {
            JOptionPane.showMessageDialog(null, "Username or Password Blank",
"Ooooops!!!", 0);
        } else {
```

```
            try {
                Class.forName("com.mysql.cj.jdbc.Driver");
                con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
                pst = con.prepareStatement("select * from students where
username=? and password=?");
                pst.setString(1, a);
                pst.setString(2, b);
                rs = pst.executeQuery();
                if (rs.next()) {
                    JOptionPane.showMessageDialog(null, "Success", "Login
Success", 1);
                    Parent root =
FXMLLoader.load(getClass().getResource("StudentOptionScreen.fxml"));
                    Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
                    Scene scene = new Scene(root);
                    stage.setScene(scene);
                    stage.show();
                } else {
                    JOptionPane.showMessageDialog(null, "Check the
credentials", "Login Failure", 0);
                    userId.setText("");
                    password.setText("");
                    userId.requestFocus();
                }
            } catch (Exception e) {
                System.out.println(e);
            }
        }

    }

    @FXML
    void signupUser(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("StudentSignUpScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

}
```

10.StudentSignUpScreen.fxml-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.PasswordField?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="StudentSignUpSceneController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="156.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="17.0" layoutY="62.0" text="Welcome to student
management system Sign-up Area , Please enter the credentials to create new
Student Account" textFill="WHITE" />
            <Label layoutX="222.0" layoutY="88.0" prefHeight="23.0"
prefWidth="196.0" text="Student Sign-Up Screen" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
```

```
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="171.0" layoutY="212.0" text="User ID"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="171.0" layoutY="251.0" text="Password"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Button fx:id="logIn" layoutX="539.0" layoutY="321.0"
mnemonicParsing="false" onAction="#loginUser" style="-fx-background-color:
#fc6e4e; -fx-background-radius: 8;" text="Log-In" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <TextField fx:id="userId" layoutX="320.0" layoutY="206.0"
promptText="Enter ID" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <VBox layoutY="200.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="284.0" prefHeight="115.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
            <PasswordField fx:id="password" layoutX="320.0" layoutY="246.0"
promptText="Password" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="quit" layoutX="477.0" layoutY="321.0"
mnemonicParsing="false" onAction="#exit" style="-fx-background-color: #fc6e4e;
-fx-background-radius: 8;" text="Quit" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Label layoutX="171.0" layoutY="170.0" text="Name"
textFill="WHITE">
               <font>
```

```
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="name" layoutX="320.0" layoutY="166.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <Button fx:id="register" layoutX="296.0" layoutY="286.0"
mnemonicParsing="false" onAction="#register" prefHeight="26.0"
prefWidth="130.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="Register" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Label layoutX="171.0" layoutY="133.0" text="Verification Code"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="Vcode" layoutX="320.0" layoutY="129.0"
promptText="V Code" style="-fx-background-color: white; -fx-background-radius:
8px;" />
         </children>
      </AnchorPane>
   </children>
</VBox>
```

StudentSignUpSceneController.java-:

```
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.swing.JOptionPane;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.PasswordField;
import javafx.scene.control.TextField;
import javafx.stage.Stage;
import javafx.scene.Node;
```

```
public class StudentSignUpSceneController {

    @FXML
    private TextField Vcode;

    @FXML
    private Button logIn;

    @FXML
    private TextField name;

    @FXML
    private PasswordField password;

    @FXML
    private Button quit;

    @FXML
    private TextField userId;

    @FXML
    private Button register;

    @FXML
    void loginUser(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("StudentLoginScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void exit(ActionEvent event) {
        System.exit(0);
    }

    @FXML
    void register(ActionEvent event) {
        String a = userId.getText();
        String b = password.getText();
        String c = name.getText();
        String d = Vcode.getText();
        if (a.equals("") || b.equals("") || c.equals("")) {
            JOptionPane.showMessageDialog(null, "One or more fields Blank",
"Ooooops!!!", 0);
```

```
        } else {
            try {
                if( d.equals("student123")){
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
                        "eventour2020");
                Statement s = con.createStatement();
                String s1 = "insert into students(username,password,name)
values('" + a + "','" + b + "','" + c + "');";
                JOptionPane.showMessageDialog(null, "Registered new Student
Successfully", "Login Success", 1);
                System.out.println("Success");
                s.executeUpdate(s1);
                }else{
                    JOptionPane.showMessageDialog(null, "Invalid Verification
Code", "Unauthorised personnel!!!", 0);
                }
            } catch (Exception e) {
                System.out.println(e);
            }
        }
    }

}
```

11.StudentOptionScreen.fxml-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="StudentOptionScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="-1.0"
prefWidth="-1.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
```

```
            <Label layoutX="166.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="70.0" layoutY="66.0" text="Welcome to Student
Management System. Please select what you wish to do." textFill="WHITE">
               <font>
                  <Font name="System Bold" size="15.0" />
               </font>
            </Label>
            <Button fx:id="exit" layoutX="280.0" layoutY="234.0"
mnemonicParsing="false" onAction="#quit" prefHeight="22.0" prefWidth="81.0"
style="-fx-background-color: #fc6e4e; -fx-background-radius: 8;" text="Quit"
textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="newrecord" layoutX="142.0" layoutY="142.0"
mnemonicParsing="false" onAction="#enterrecord" prefHeight="47.0"
prefWidth="131.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="View Marks" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Button fx:id="viewrec" layoutX="377.0" layoutY="142.0"
mnemonicParsing="false" onAction="#viewrecord" prefHeight="47.0"
prefWidth="131.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="LogOut" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <VBox layoutY="212.0" prefHeight="200.0" prefWidth="100.0"
style="-fx-background-color: #a12121;" />
            <VBox layoutX="100.0" layoutY="292.0" prefHeight="121.0"
prefWidth="100.0" style="-fx-background-color: #fffff2;" />
         </children>
      </AnchorPane>
   </children>
</VBox>
```

StudentOptionScreenController.java-:

```
import java.io.IOException;

import javax.swing.JOptionPane;

import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Node;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.stage.Stage;

public class StudentOptionScreenController {

    @FXML
    private Button exit;

    @FXML
    private Button newrecord;

    @FXML
    private Button viewrec;

    @FXML
    void enterrecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("StudentRecordScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void quit(ActionEvent event) {
        System.exit(0);
    }

    @FXML
    void viewrecord(ActionEvent event) throws IOException {
        Parent root =
FXMLLoader.load(getClass().getResource("StudentLoginScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
```

```
        stage.setScene(scene);
        stage.show();
    }

}
```

12.StudentRecordScreen.fxml-:

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TableView?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.layout.VBox?>
<?import javafx.scene.paint.Color?>
<?import javafx.scene.paint.LinearGradient?>
<?import javafx.scene.paint.Stop?>
<?import javafx.scene.text.Font?>

<VBox prefHeight="400.0" prefWidth="640.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="viewStudentRecordScreenController">
   <children>
      <AnchorPane maxHeight="-1.0" maxWidth="-1.0" prefHeight="476.0"
prefWidth="751.0" style="-fx-background-color: #2e2a29;" VBox.vgrow="ALWAYS">
         <children>
            <Label layoutX="166.0" layoutY="20.0" prefHeight="22.0"
prefWidth="327.0" text="STUDENT MANAGEMENT SYSTEM" textAlignment="CENTER"
textFill="WHITE">
               <font>
                  <Font name="Broadway" size="18.0" />
               </font>
            </Label>
            <Label layoutX="46.0" layoutY="66.0" text="Welcome to Student
Management System. Please enter details to view record" textFill="WHITE">
               <font>
                  <Font name="System Bold" size="15.0" />
               </font>
            </Label>
            <Button fx:id="viewrec" layoutX="510.0" layoutY="342.0"
mnemonicParsing="false" onAction="#viewrecord" prefHeight="39.0"
prefWidth="104.0" style="-fx-background-color: #fc6e4e; -fx-background-radius:
8;" text="View Record" textAlignment="CENTER">
```

```
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
            <Label layoutX="240.0" layoutY="101.0" prefHeight="23.0"
prefWidth="160.0" text="Student's Details" textAlignment="CENTER">
               <font>
                  <Font name="Berlin Sans FB Demi Bold" size="19.0" />
               </font>
               <textFill>
                  <LinearGradient endX="1.0" endY="1.0">
                     <stops>
                        <Stop>
                           <color>
                              <Color red="1.0" green="1.1102230246251565E-16"
blue="1.1102230246251565E-16" />
                           </color>
                        </Stop>
                        <Stop offset="1.0">
                           <color>
                              <Color red="0.8736842274665833"
green="0.7669005990028381" blue="0.7669005990028381" />
                           </color>
                        </Stop>
                     </stops>
                  </LinearGradient>
               </textFill>
            </Label>
            <Label layoutX="76.0" layoutY="134.0" text="Name "
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <Label layoutX="288.0" layoutY="135.0" text="Registration Number"
textFill="WHITE">
               <font>
                  <Font name="System Bold Italic" size="14.0" />
               </font>
            </Label>
            <TextField fx:id="studentname" layoutX="127.0" layoutY="132.0"
promptText="Enter Name" style="-fx-background-color: white; -fx-background-
radius: 8px;" />
            <TextField fx:id="registrationnumber" layoutX="435.0"
layoutY="131.0" promptText="Enter Reg. No." style="-fx-background-color:
white; -fx-background-radius: 8px;" />
            <TableView fx:id="table" layoutX="51.0" layoutY="176.0"
prefHeight="86.0" prefWidth="536.0" style="-fx-background-radius: 5px;" />
```

```
            <Button fx:id="exit1" layoutX="31.0" layoutY="342.0"
mnemonicParsing="false" onAction="#quit" prefHeight="39.0" prefWidth="111.0"
style="-fx-background-color: #fc6e4e; -fx-background-radius: 8;" text="Go
Back" textAlignment="CENTER">
               <font>
                  <Font name="System Bold" size="12.0" />
               </font>
            </Button>
         </children>
      </AnchorPane>
   </children>
</VBox>
```

viewStudentRecordScreenController.java-:

```
import java.io.IOException;
import java.sql.*;
import javax.swing.JOptionPane;
import javafx.beans.property.SimpleStringProperty;
import javafx.beans.value.ObservableValue;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TextField;
import javafx.scene.control.TableColumn.CellDataFeatures;
import javafx.util.Callback;
import javafx.scene.control.TableColumn;
import javafx.scene.control.TableView;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import javafx.scene.Node;
import javafx.stage.Stage;
public class viewStudentRecordScreenController {

    @FXML
    private Button exit1;

    @FXML
    private Button viewall;
```

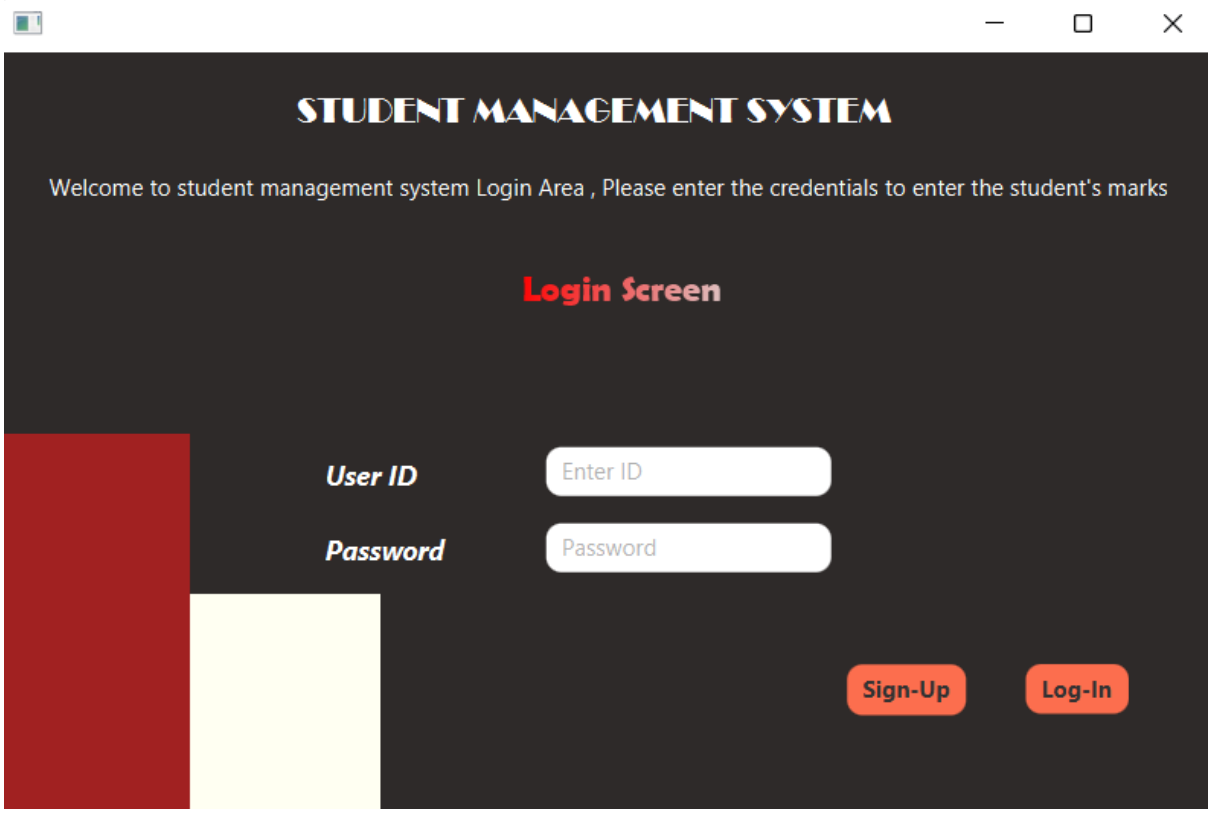
```
    @FXML
    private TextField registrationnumber;

    @FXML
    private TextField studentname;

    @FXML
    private TableView<?> table;
    @FXML
    private Button viewrec;


    @FXML
    void quit(ActionEvent event) throws IOException{
        Parent root =
FXMLLoader.load(getClass().getResource("StudentOptionScreen.fxml"));
        Stage stage = (Stage) ((Node)
event.getSource()).getScene().getWindow();
        Scene scene = new Scene(root);
        stage.setScene(scene);
        stage.show();
    }

    @FXML
    void viewrecord(ActionEvent event) throws ClassNotFoundException,
SQLException {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_db", "eshan",
"eventour2020");
        String a = '"' + studentname.getText() + '"';
        String b = '"' + registrationnumber.getText() + '"';
        if (studentname.getText().toString().length() != 0 &&
registrationnumber.getText().toString().length() != 0) {
            String s1 = "Select
sub1,sub2,sub3,sub4,sub5,HighestMarks,Percentage from student_details where
name=" + a
                    + "and registration_number=" + b;
            ResultSet rsSet = con.createStatement().executeQuery(s1);
            ObservableList data = FXCollections.observableArrayList();
            for (int i = 0; i < rsSet.getMetaData().getColumnCount(); i++) {
                // We are using non property style for making dynamic table
                final int j = i;
                TableColumn col = new
TableColumn(rsSet.getMetaData().getColumnName(i + 1));
                col.setCellValueFactory(
                        new Callback<CellDataFeatures<ObservableList, String>,
ObservableValue<String>>() {
```

```
                            public ObservableValue<String>
call(CellDataFeatures<ObservableList, String> param) {
                                return new
SimpleStringProperty(param.getValue().get(j).toString());
                            }
                        });
                table.getColumns().addAll(col);
            }

            while (rsSet.next()) {
                // Iterate Row
                ObservableList<String> row =
FXCollections.observableArrayList();
                for (int i = 1; i <= rsSet.getMetaData().getColumnCount();
i++) {
                    // Iterate Column
                    row.add(rsSet.getString(i));
                }
                data.add(row);
            }
            table.setItems(data);
        } else {
            JOptionPane.showMessageDialog(null, "Error!!!", "Credentials
Empty", 0);
        }
    }

}
```

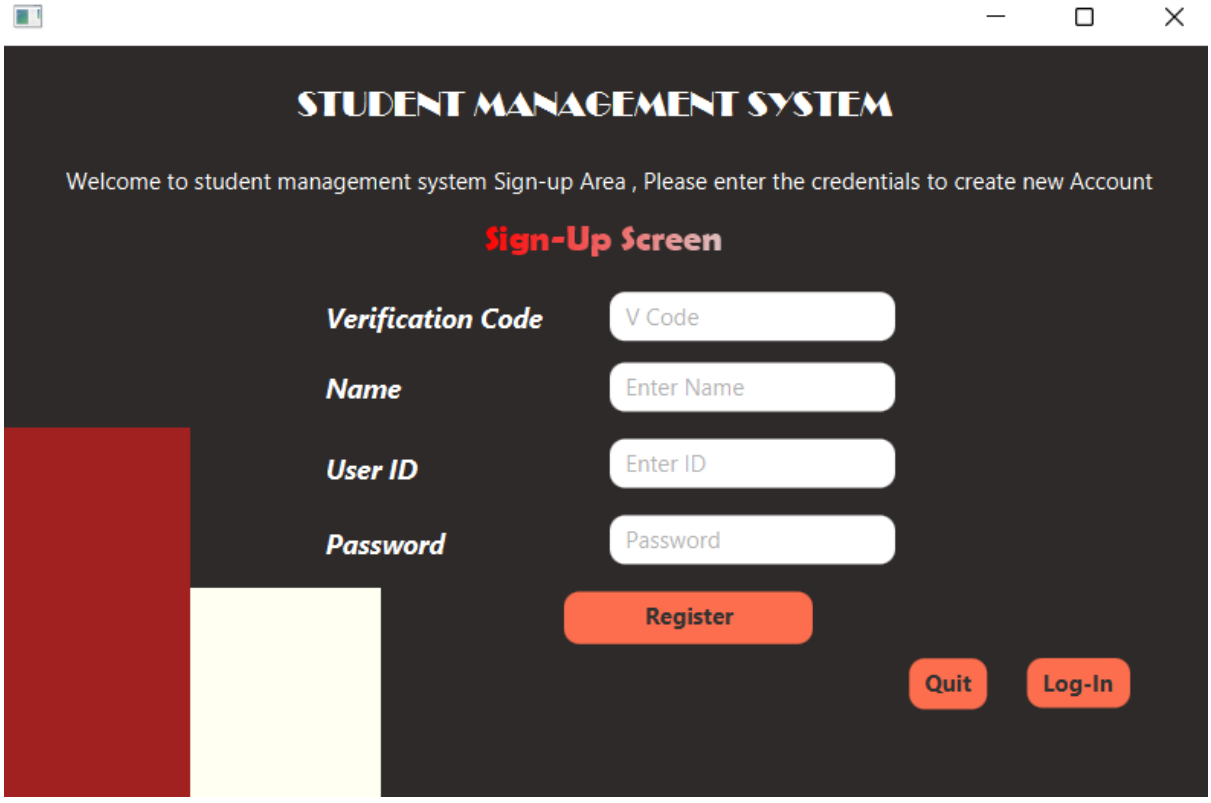
Outputs-:

1. **Welcome Screen**

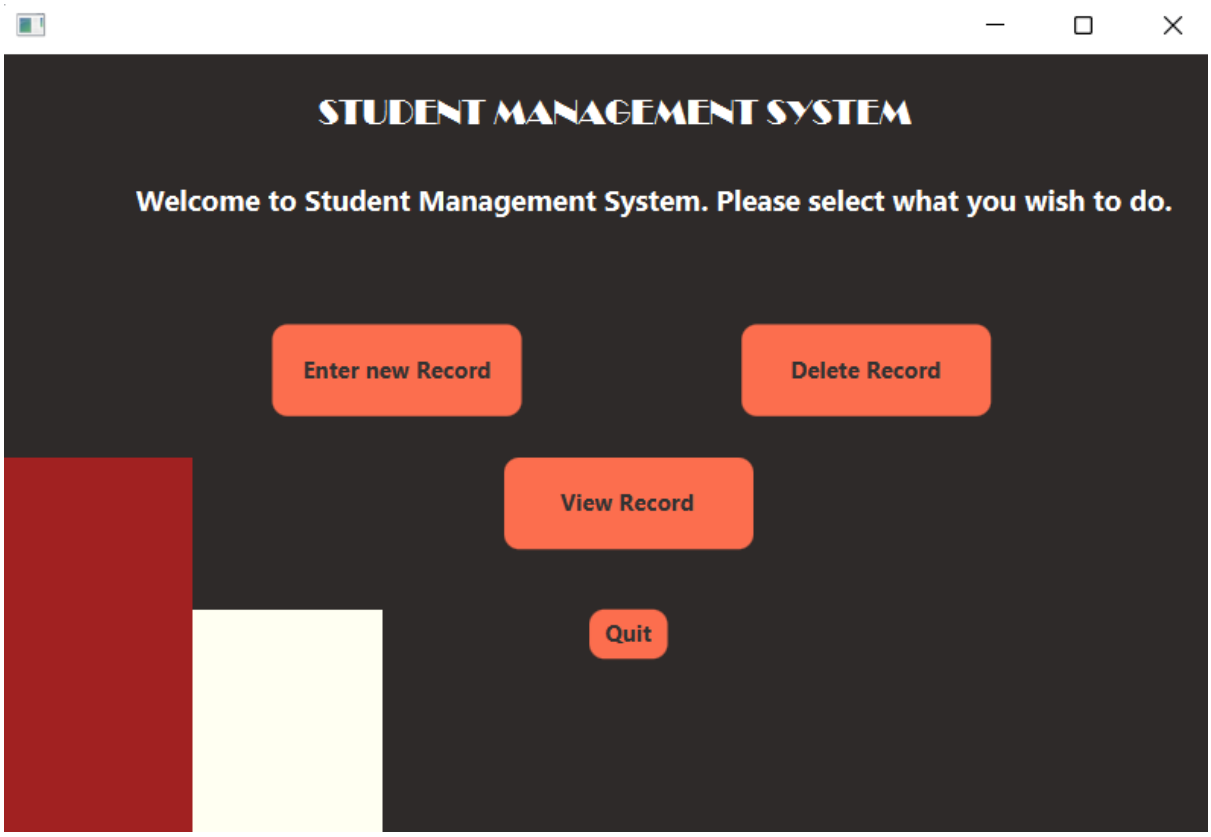
2. Admin Login Screen



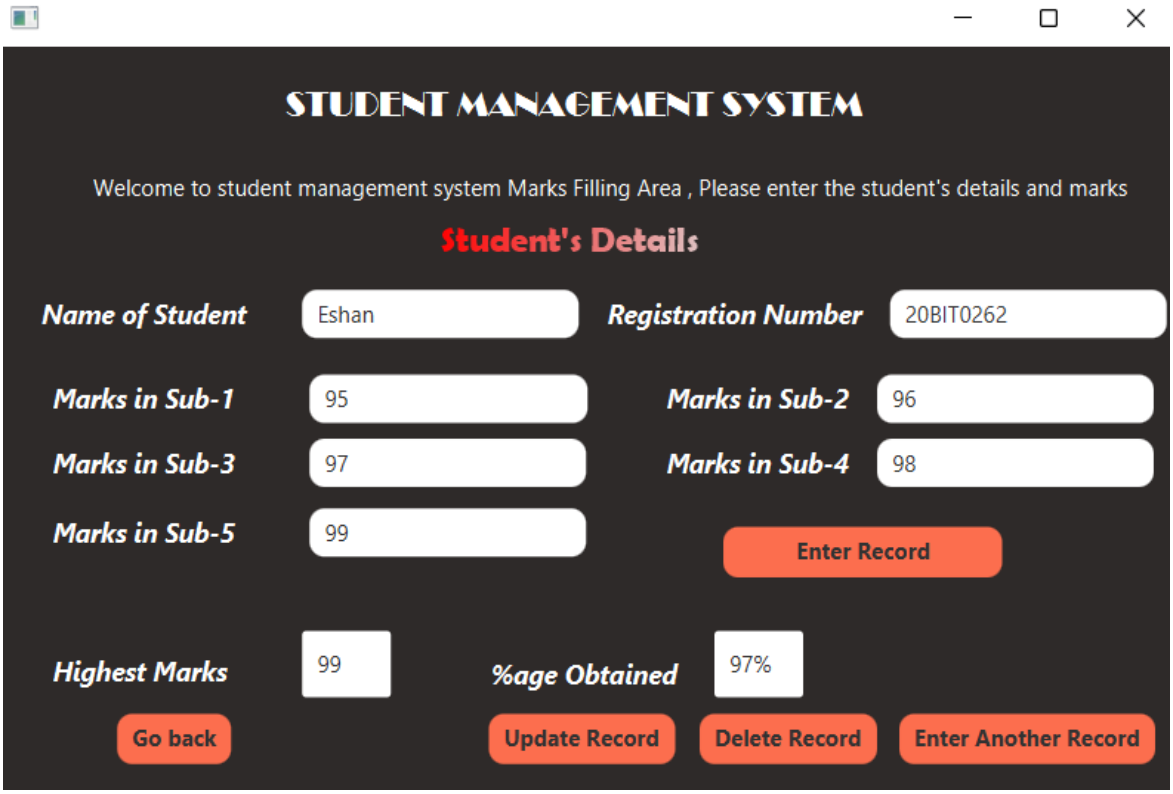
3. Admin Sign Up Screen



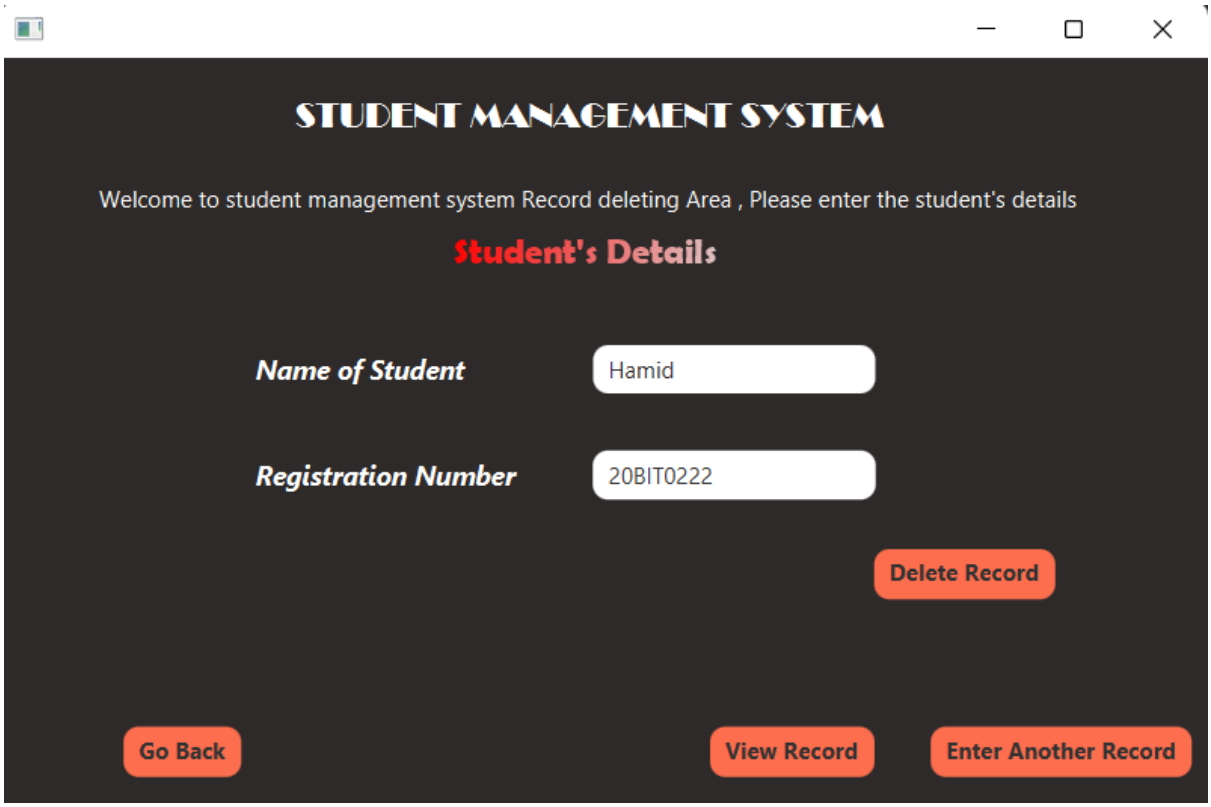
4. Admin Options Screen



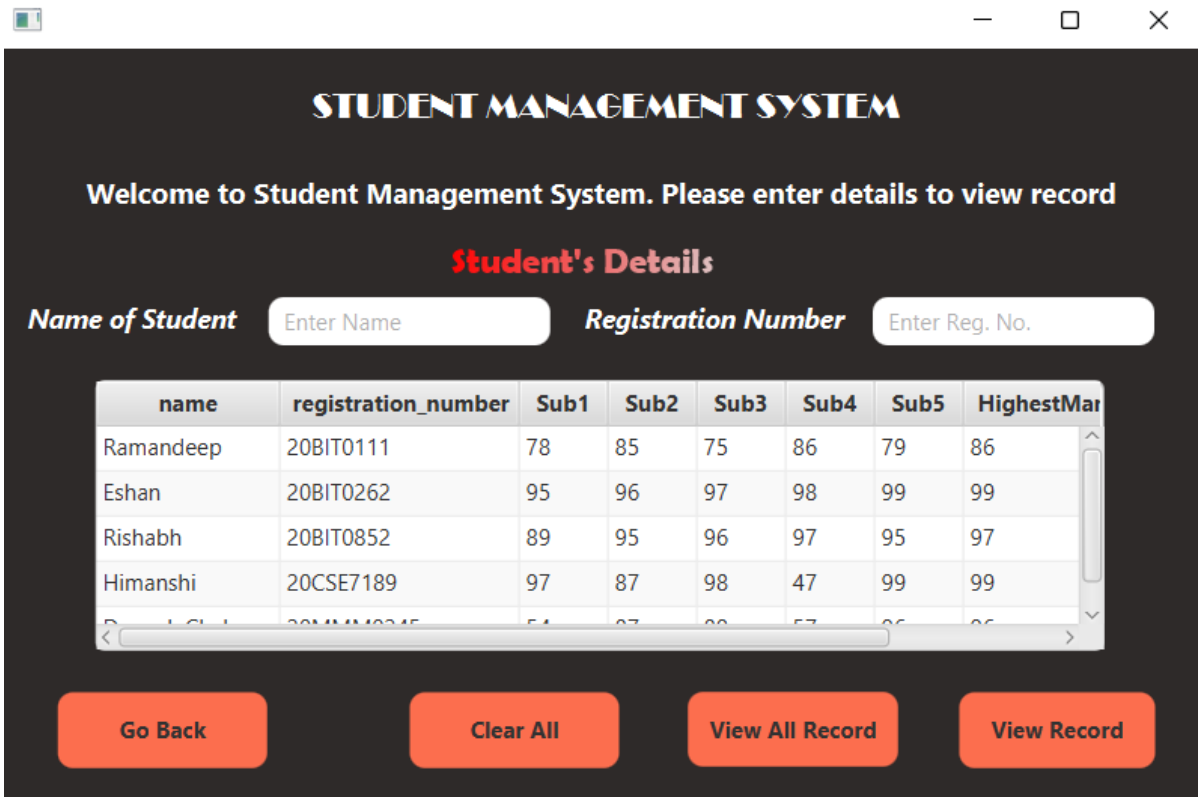
5. New Record Screen



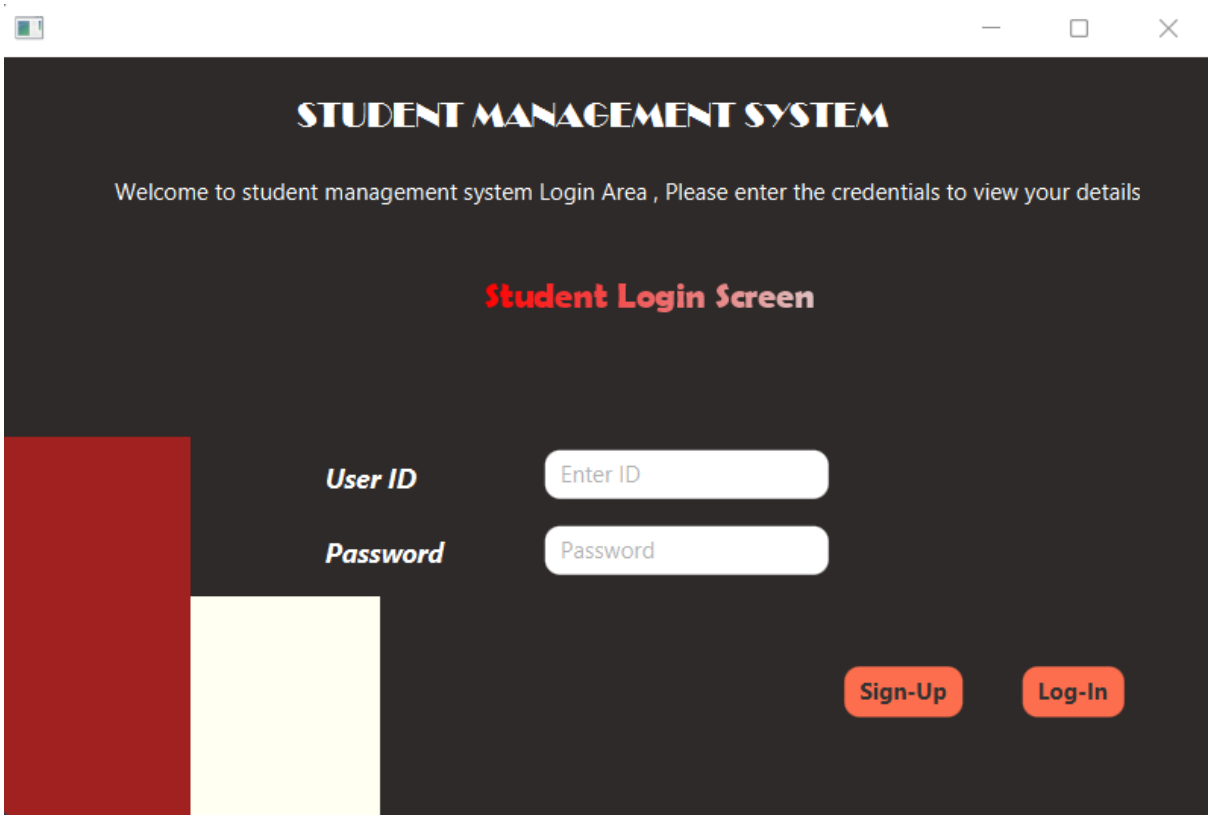
6. Delete Record Screen



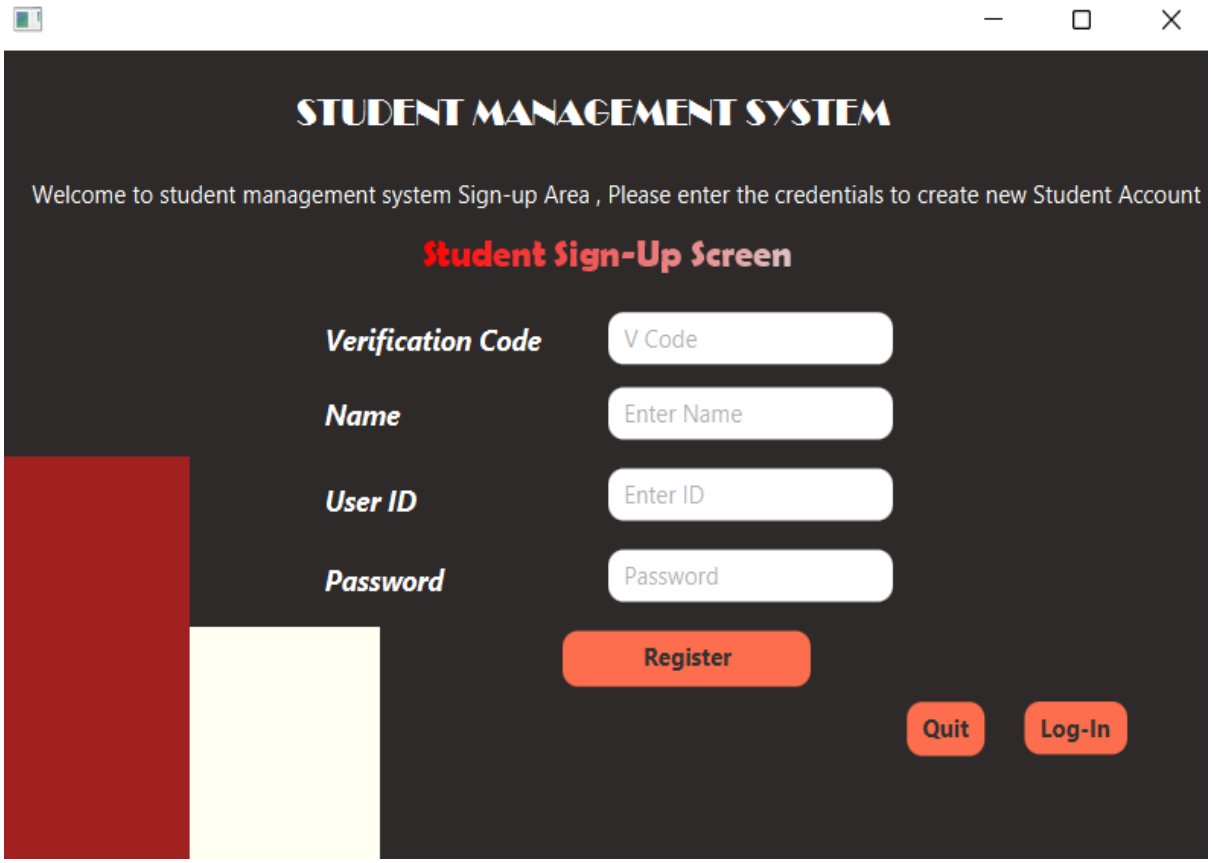
7. View Record Screen



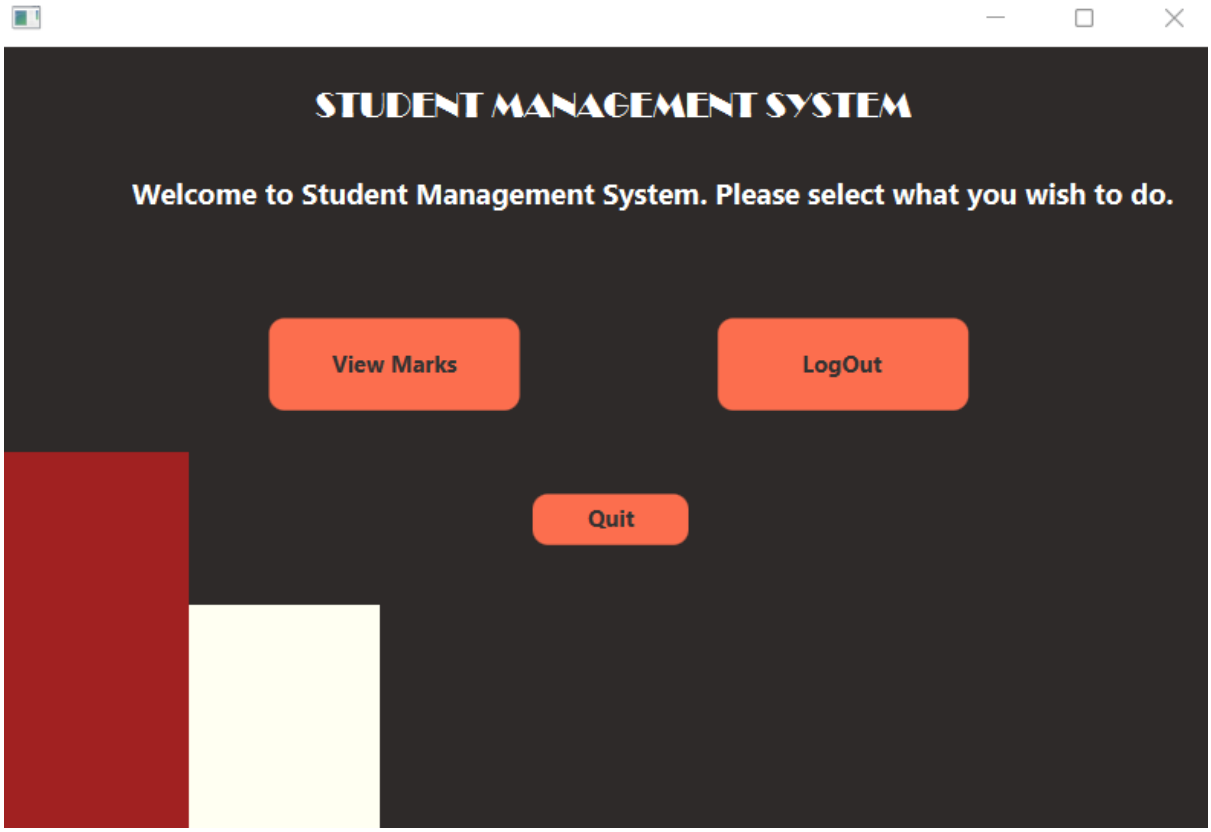
8. Student Login Screen



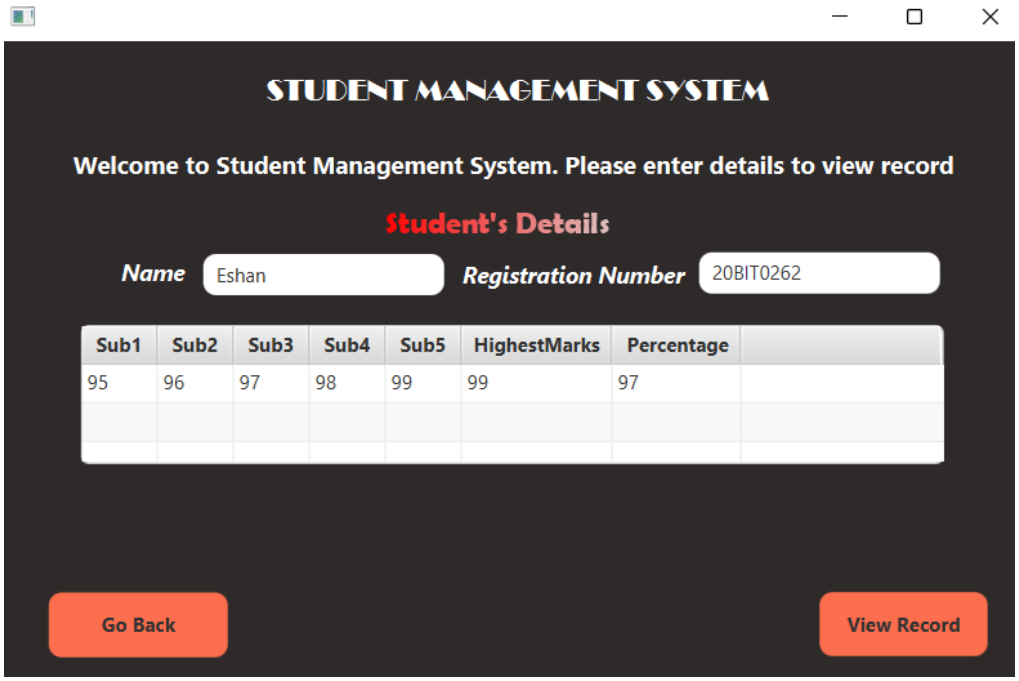
9. Student Sign Up Screen



10. Student Option Screen



11. Student View Marks Screen



Database Screen Shots-:

I have used 3 different tables

```
mysql> show tables;
+----------------------+
| Tables_in_student_db |
+----------------------+
| student_details      |
| students             |
| users                |
+----------------------+
3 rows in set (0.02 sec)
```

1. Student Credentials Table-:

```
mysql> select * from students;
+-----------+-----------+-------------+
| username  | password  | name        |
+-----------+-----------+-------------+
| Rahul0009 | rahul0009 | Rahul Kumar |
| eshan1925 | eshan1925 | Eshan       |
| eshan1925 | password  | Eshan       |
+-----------+-----------+-------------+
3 rows in set (0.00 sec)
```

2. Admin Credentials Table-:

```
mysql> select * from users;
+------------+-------------+-------------------+
| username_  | password_   | name              |
+------------+-------------+-------------------+
| eshan1925  | password    | Eshan             |
| Yashraj_12 | yashrajpass | Yashraj           |
| rohan_     | 12345       | Rohan             |
| Sid123     | sid123      | Siddhant          |
| Rahul123   | rahul123    | Rahul Gupta       |
| sachin123  | sachin123   | Sachin Tendulkar  |
+------------+-------------+-------------------+
6 rows in set (0.00 sec)
```

3. Student Records Table-:

```
mysql> select * from student_Details;
+--------------+---------------------+------+------+------+------+------+--------------+------------+
| name         | registration_number | Sub1 | Sub2 | Sub3 | Sub4 | Sub5 | HighestMarks | Percentage |
+--------------+---------------------+------+------+------+------+------+--------------+------------+
| Ramandeep    | 20BIT0111           |   78 |   85 |   75 |   86 |   79 |           86 |         80 |
| Eshan        | 20BIT0262           |   95 |   96 |   97 |   98 |   99 |           99 |         97 |
| Rishabh      | 20BIT0852           |   89 |   95 |   96 |   97 |   95 |           97 |         94 |
| Himanshi     | 20CSE7189           |   97 |   87 |   98 |   47 |   99 |           99 |         85 |
| Deepak Chahar | 20MMM0245          |   54 |   87 |   89 |   57 |   96 |           96 |         73 |
+--------------+---------------------+------+------+------+------+------+--------------+------------+
5 rows in set (0.00 sec)
```

RESULT and Discussion-:

So this project results in fetching updating and viewing records of students from the MY SQL database and that too from two sides that is Admin and student side. Each role has its own features and own permissions.

CONCLUSION-:

The main purpose of STUDENT MANAGEMENT SYSTEM was to obtain a bridge between the faculty and the student so that the record gets updated and viewed by the student using one application. For this I used 11 different screens and multiple software. All in all I was able to achieve the desired targets in time and the application is in fully working condition.