



VIT[®]
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.

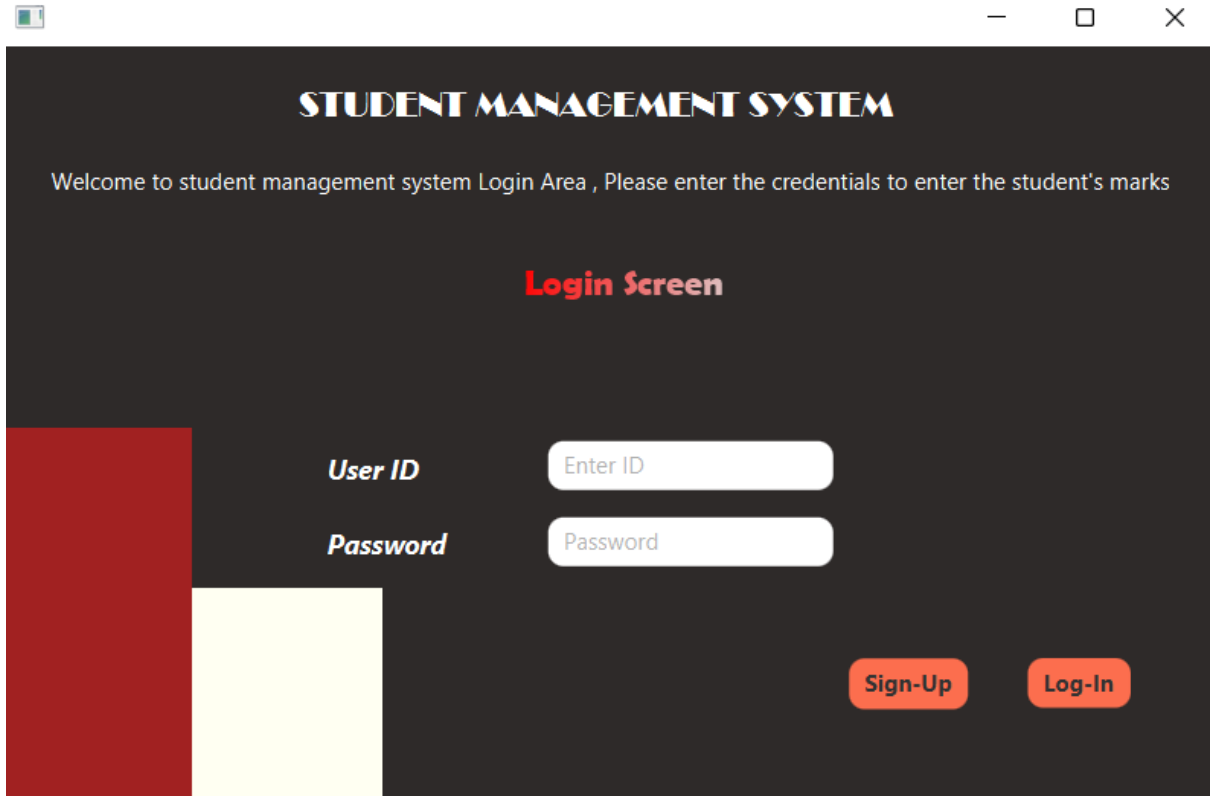
Objective-: In this project I have allowed the admin to enter the student's marks which get uploaded to the database and the same data is shown to the student. The main objective of the project is to establish the link between the admin (Faculty) and student.

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.

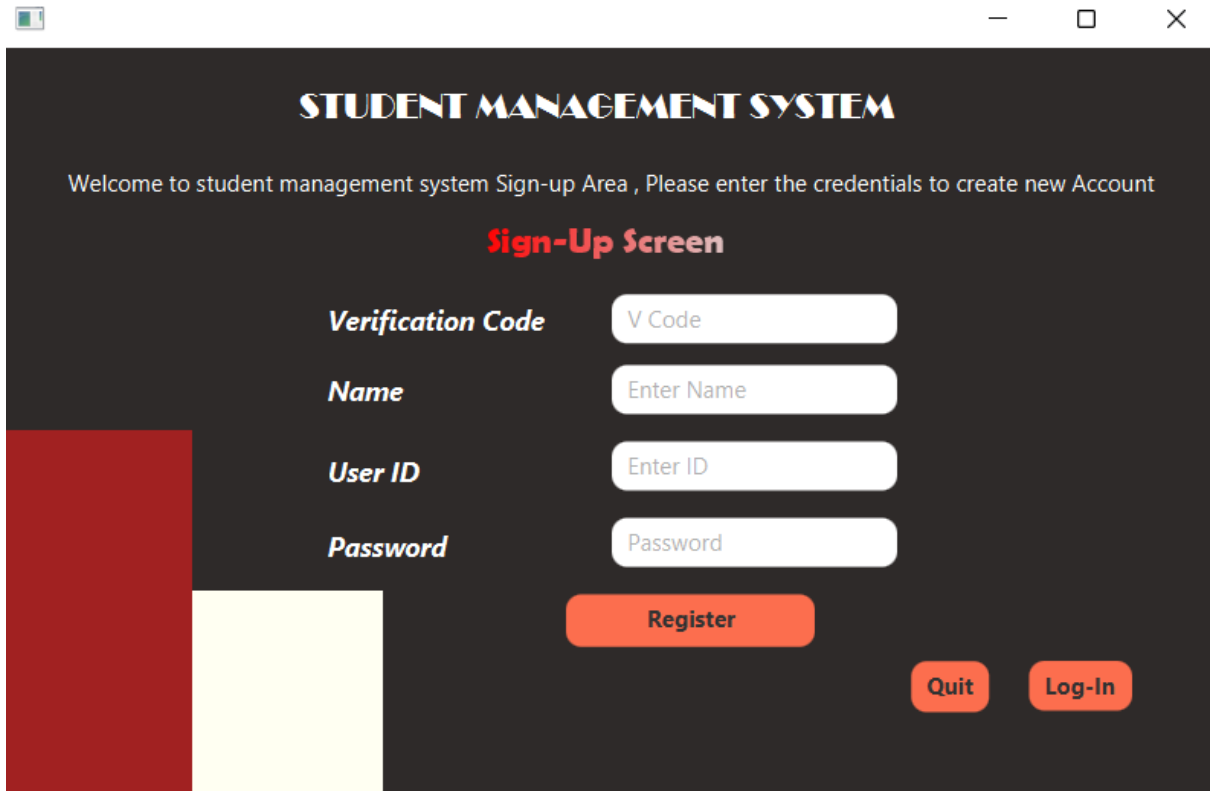


2. Admin Login Screen-: This screen allows the user to login the system if he already has credentials.



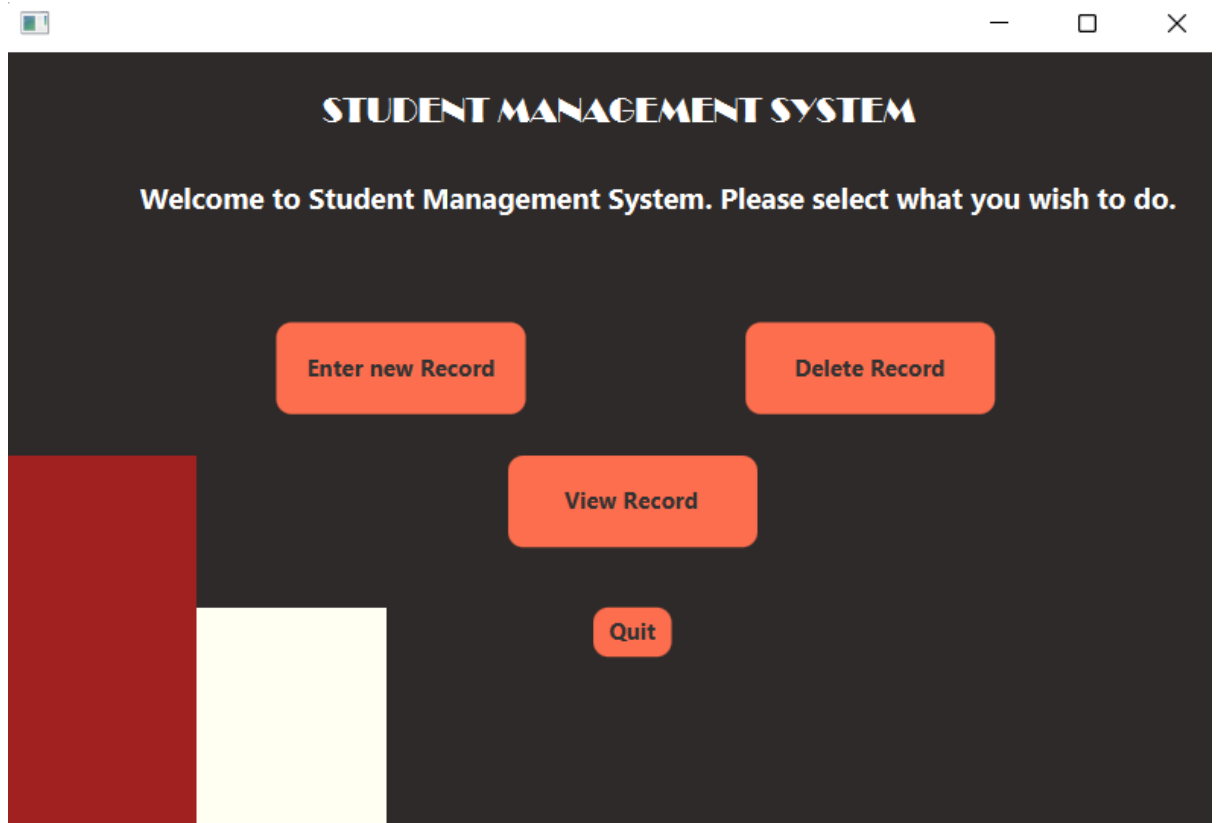
The Admin Login Screen is a web application window titled "STUDENT MANAGEMENT SYSTEM". It features a dark gray background with white text. At the top, it says "Welcome to student management system Login Area , Please enter the credentials to enter the student's marks". Below this, the title "Login Screen" is displayed in red. The form includes two input fields: "User ID" with a placeholder "Enter ID" and "Password" with a placeholder "Password". To the right of these fields are two orange buttons: "Sign-Up" and "Log-In". A red vertical bar is on the left side of the form, and a yellow vertical bar is on the right side of the form.

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



The Admin Signup Screen is a web application window titled "STUDENT MANAGEMENT SYSTEM". It features a dark gray background with white text. At the top, it says "Welcome to student management system Sign-up Area , Please enter the credentials to create new Account". Below this, the title "Sign-Up Screen" is displayed in red. The form includes four input fields: "Verification Code" with a placeholder "V Code", "Name" with a placeholder "Enter Name", "User ID" with a placeholder "Enter ID", and "Password" with a placeholder "Password". To the right of these fields is an orange button labeled "Register". At the bottom right, there are two orange buttons: "Quit" and "Log-In". A red vertical bar is on the left side of the form, and a yellow vertical bar is on the right side of the form.

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.

The screenshot shows a window titled "STUDENT MANAGEMENT SYSTEM". Below the title, it says "Welcome to student management system Marks Filling Area , Please enter the student's details and marks". The screen is divided into two main sections: "Student's Details" and "Marks Filling Area".

Student's Details

Name of Student	<input type="text" value="Eshan"/>	Registration Number	<input type="text" value="20BIT0262"/>
------------------------	------------------------------------	----------------------------	----------------------------------------

Marks Filling Area

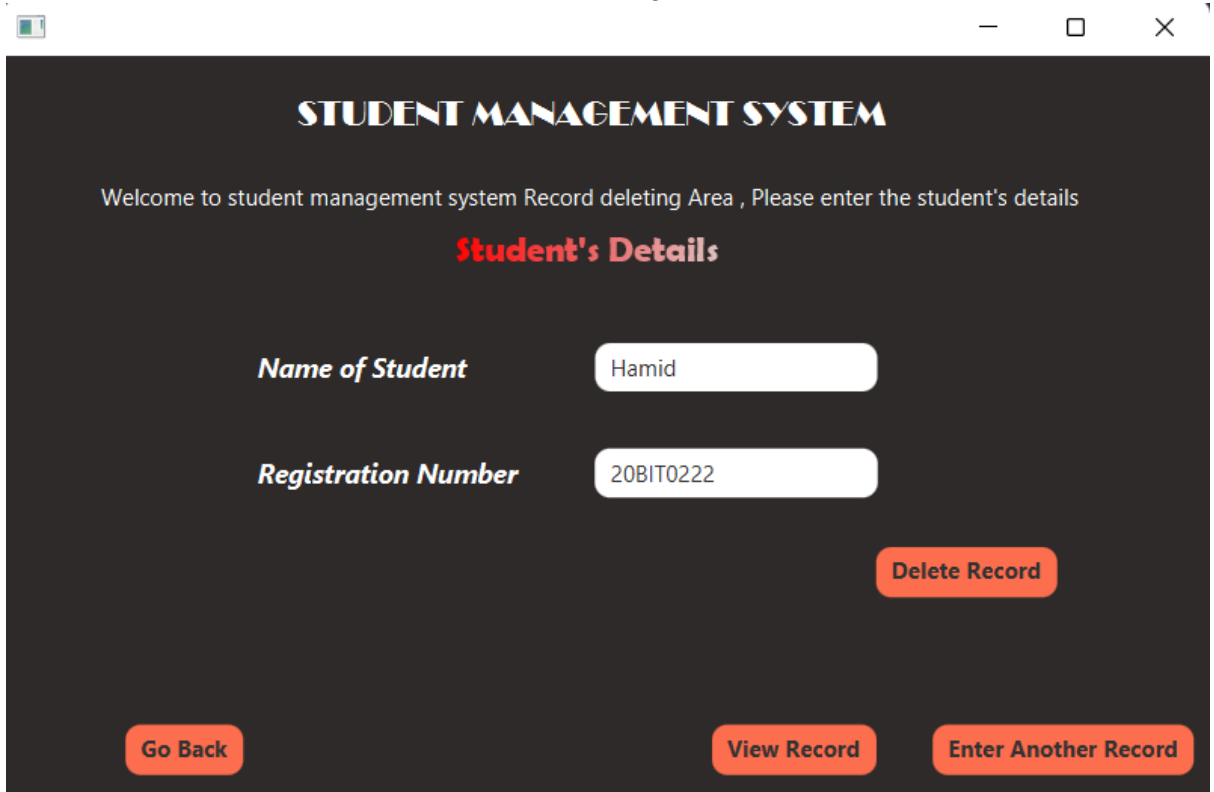
Marks in Sub-1	<input type="text" value="95"/>	Marks in Sub-2	<input type="text" value="96"/>
Marks in Sub-3	<input type="text" value="97"/>	Marks in Sub-4	<input type="text" value="98"/>
Marks in Sub-5	<input type="text" value="99"/>	<input type="button" value="Enter Record"/>	

Summary

Highest Marks	<input type="text" value="99"/>	%age Obtained	<input type="text" value="97%"/>
----------------------	---------------------------------	----------------------	----------------------------------

At the bottom, there are four orange buttons: "Go back", "Update Record", "Delete Record", and "Enter Another Record".

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.



STUDENT MANAGEMENT SYSTEM

Welcome to student management system Record deleting Area , Please enter the student's details

Student's Details

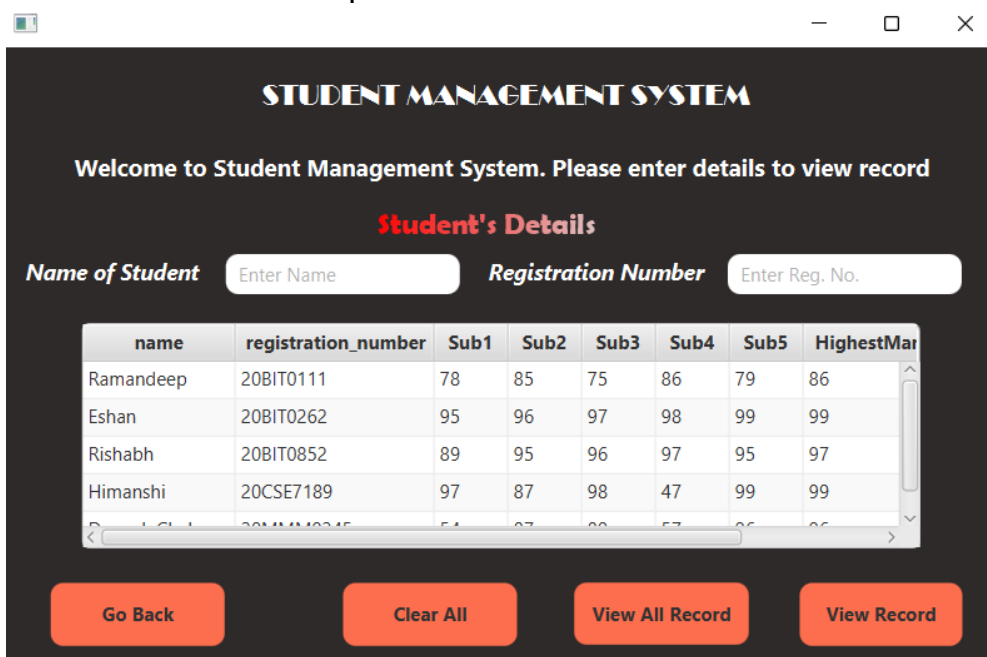
Name of Student

Registration Number

Delete Record

Go Back **View Record** **Enter Another Record**

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.



STUDENT MANAGEMENT SYSTEM

Welcome to Student Management System. Please enter details to view record

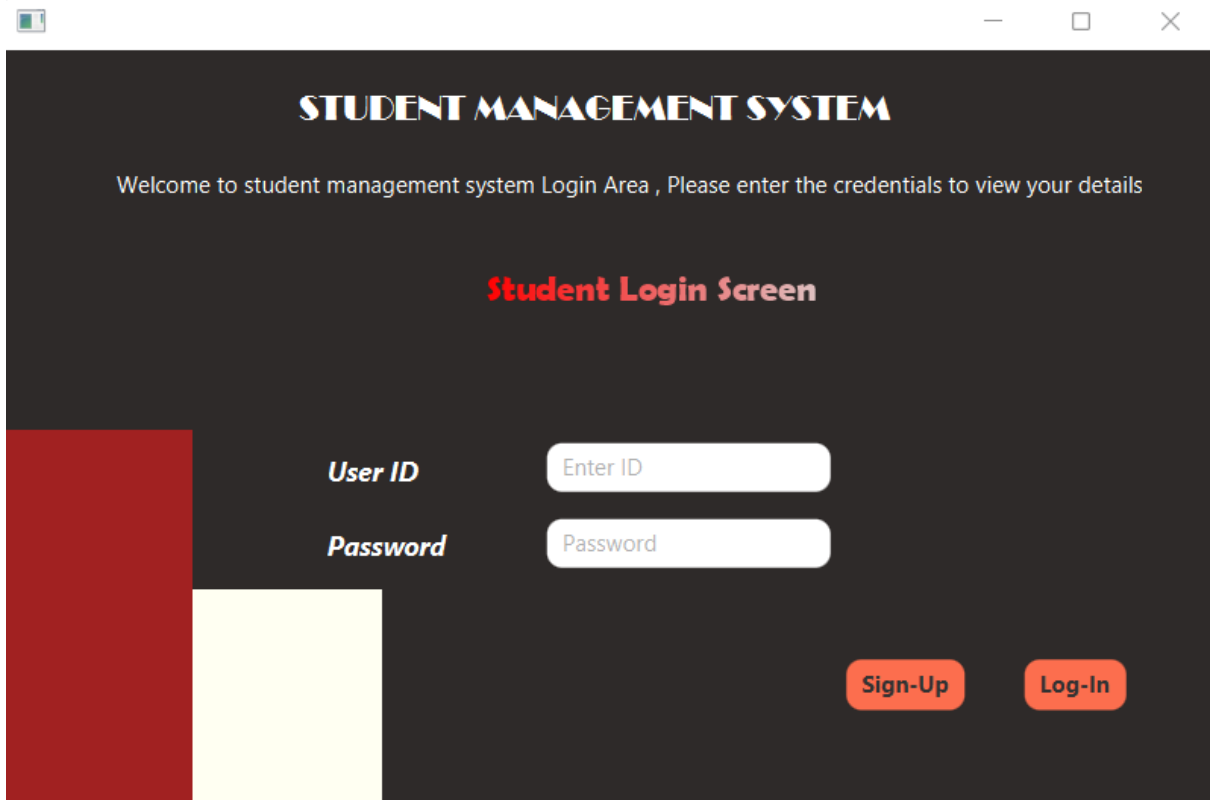
Student's Details

Name of Student *Registration Number*

name	registration_number	Sub1	Sub2	Sub3	Sub4	Sub5	HighestMar
Ramandeep	20BIT0111	78	85	75	86	79	86
Eshan	20BIT0262	95	96	97	98	99	99
Rishabh	20BIT0852	89	95	96	97	95	97
Himanshi	20CSE7189	97	87	98	47	99	99
...

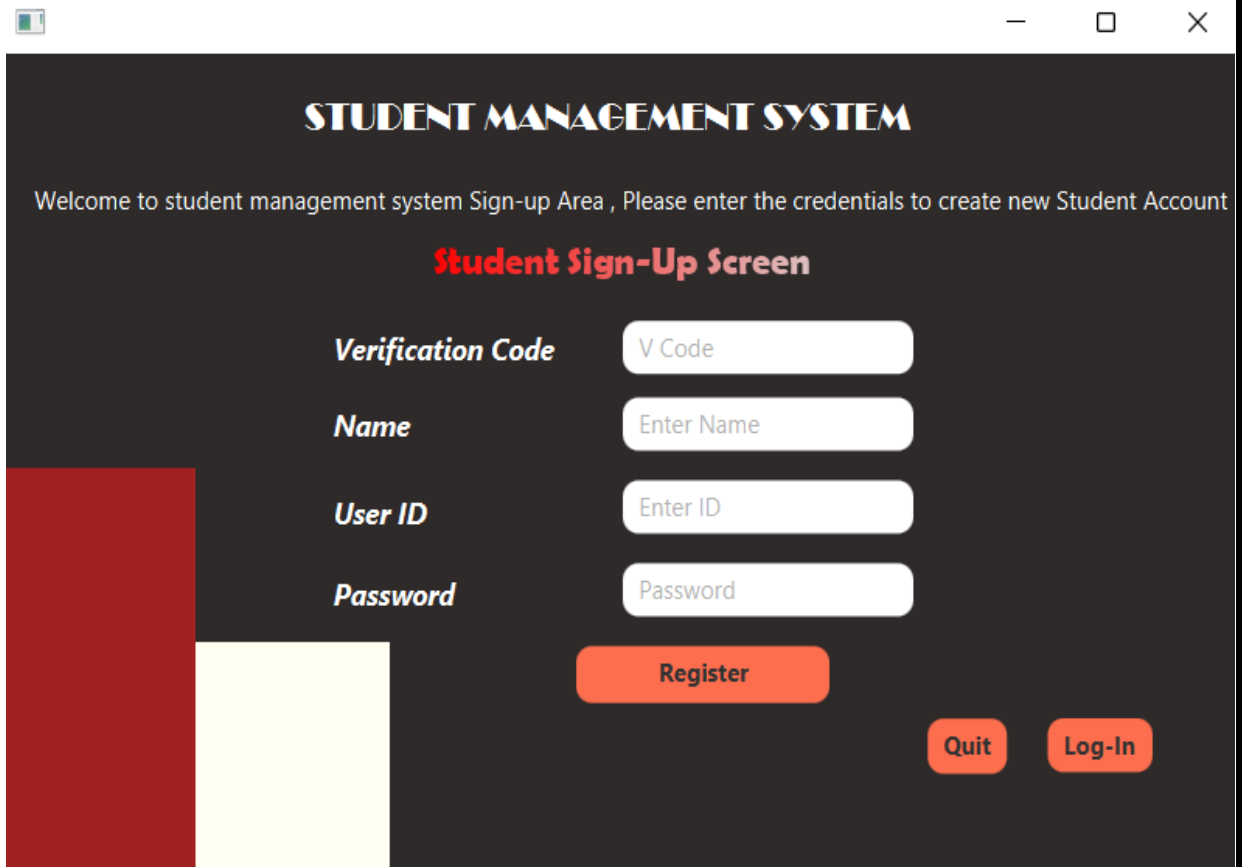
Go Back **Clear All** **View All Record** **View Record**

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



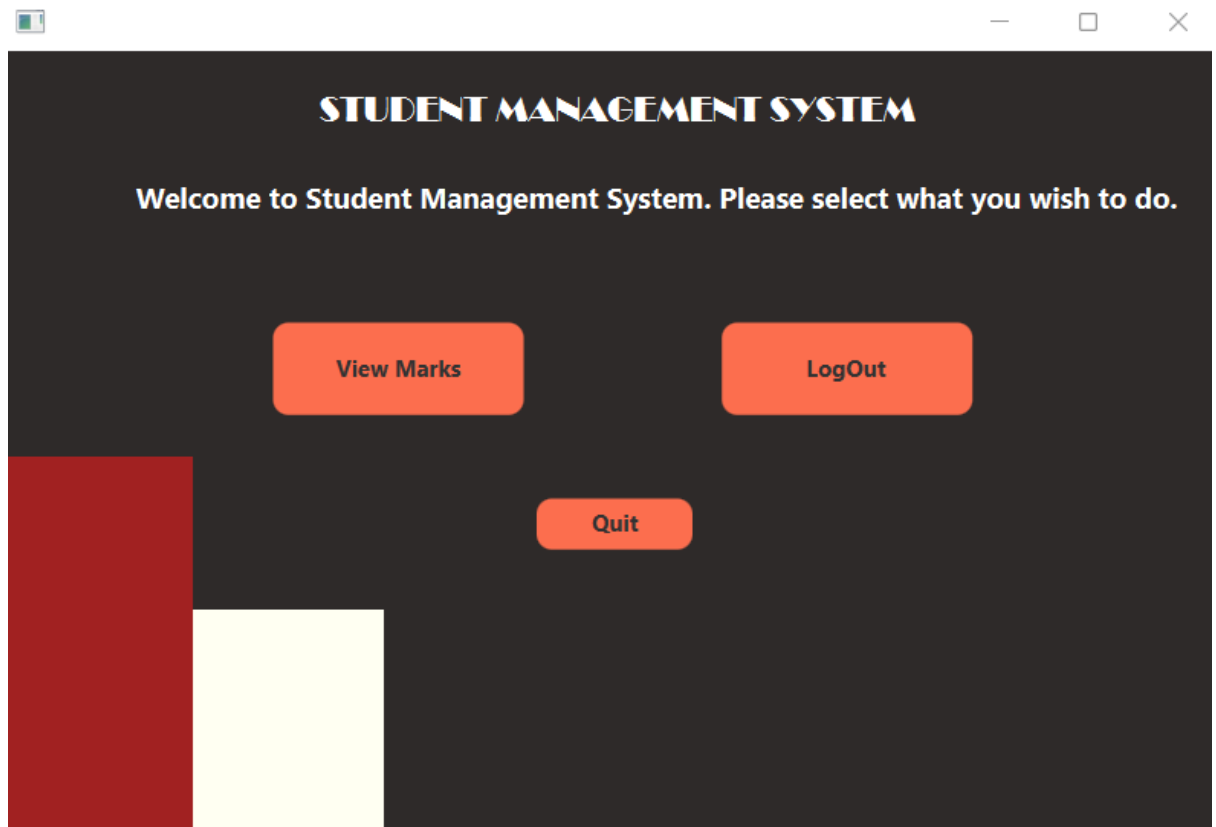
The screenshot shows a web application window titled "STUDENT MANAGEMENT SYSTEM". The main heading is "Student Login Screen" in red. Below it, a welcome message reads: "Welcome to student management system Login Area , Please enter the credentials to view your details". The login form consists of two input fields: "User ID" with a placeholder "Enter ID" and "Password" with a placeholder "Password". To the right of these fields are two buttons: "Sign-Up" and "Log-In". The interface is dark-themed with a red sidebar on the left and a yellow sidebar on the right.

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

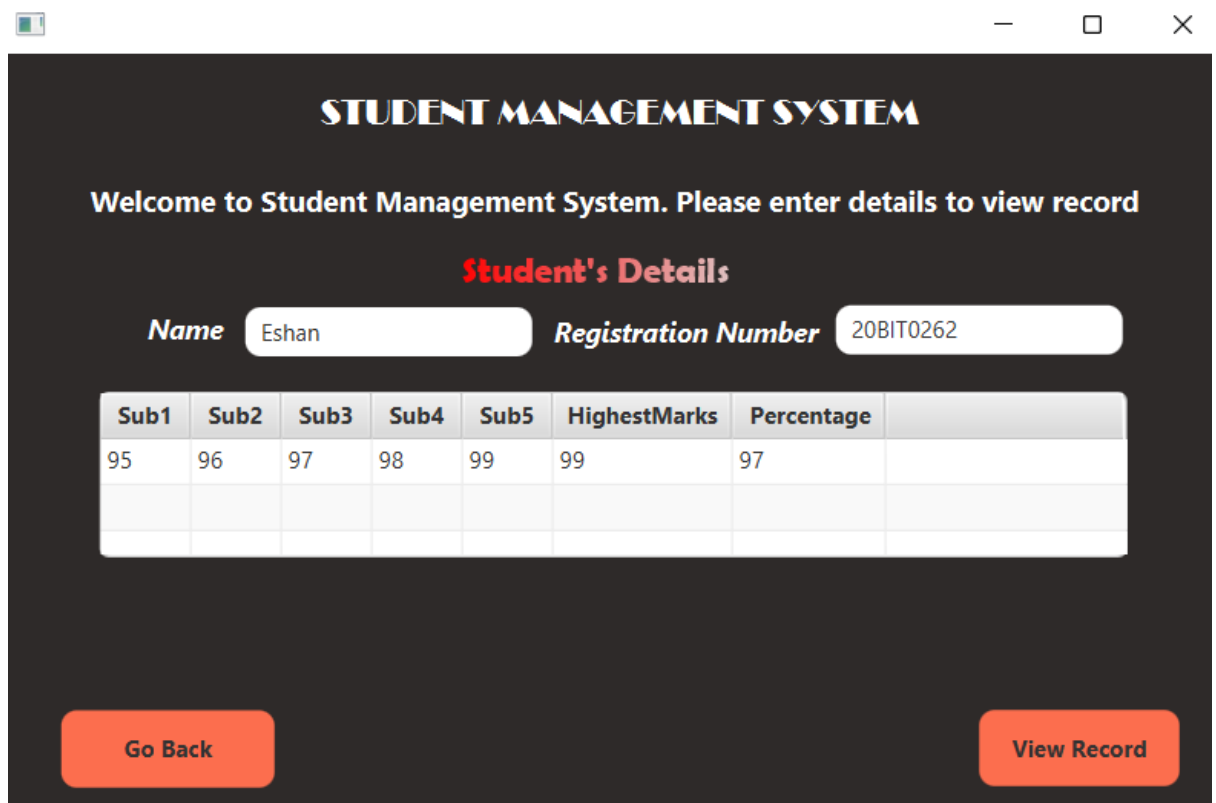


The screenshot shows a web application window titled "STUDENT MANAGEMENT SYSTEM". The main heading is "Student Sign-Up Screen" in red. Below it, a welcome message reads: "Welcome to student management system Sign-up Area , Please enter the credentials to create new Student Account". The sign-up form consists of four input fields: "Verification Code" with a placeholder "V Code", "Name" with a placeholder "Enter Name", "User ID" with a placeholder "Enter ID", and "Password" with a placeholder "Password". To the right of these fields is a "Register" button. At the bottom right, there are two buttons: "Quit" and "Log-In". The interface is dark-themed with a red sidebar on the left and a yellow sidebar on the right.

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

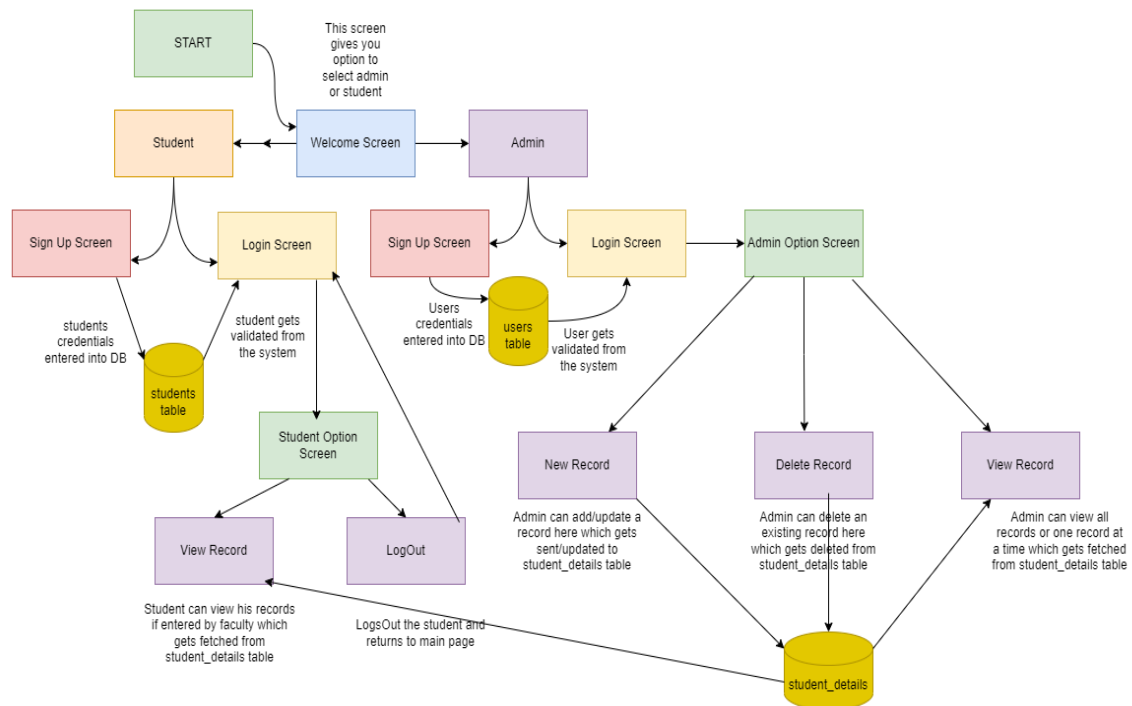
- Intel core i5 10th gen
- NVIDIA graphic card – 4GB

Software Specifications-:

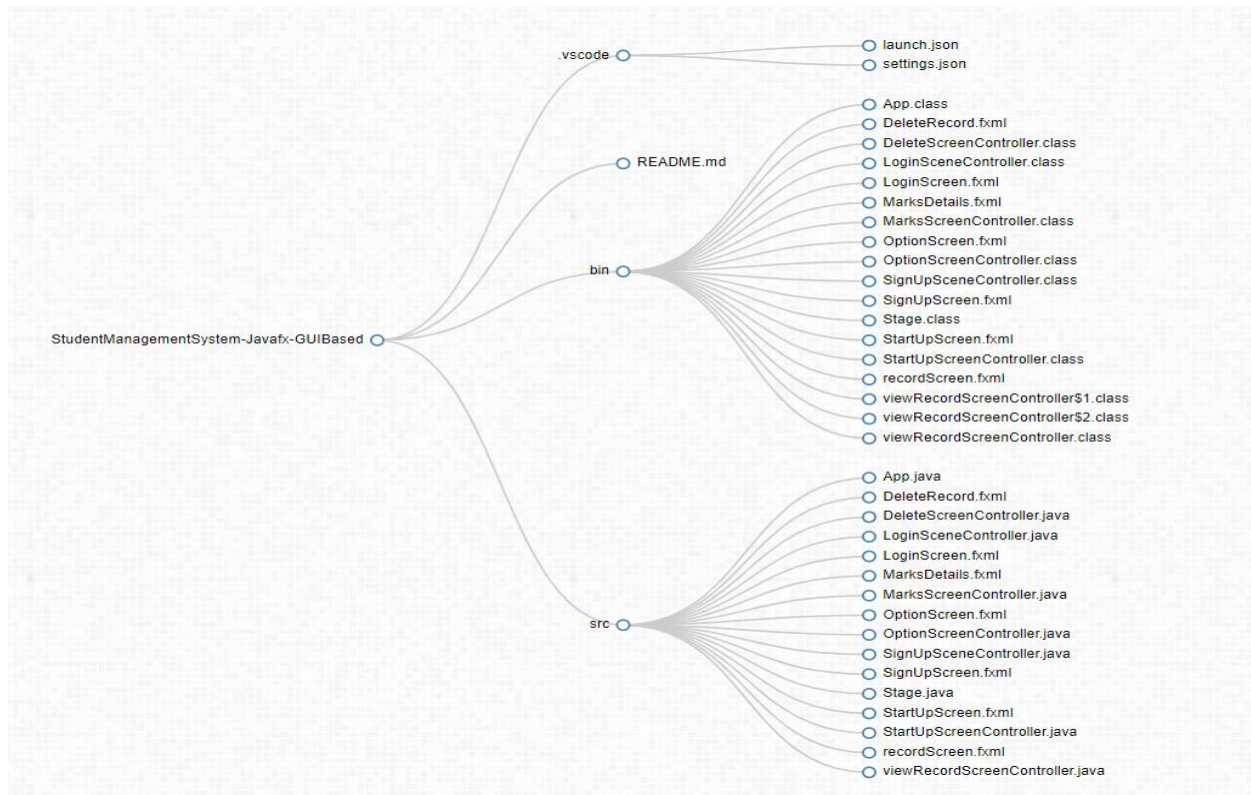
For running the project you need

- 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="#adminPageaccess" 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: #ffffff2;" />
                <Button fx:id="student" layoutX="422.0" layoutY="209.0"
mnemonicParsing="false" onAction="#studentpageAccess" 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 adminPageaccess(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 studentpageAccess(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: #ffffff2;" />
        <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",
"Oooooops!!!", 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>
            </children>
        </AnchorPane>
    </children>
</VBox>

```



```

        </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: #ffffff2;" />
    <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>

```

```

        </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",
"Oooooops!!!", 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);
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

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

```

        </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: #ffffff2;" />
        </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>

```

```

        </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);
}
}

```



```

                <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: #ffffff2;" />
    <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>
```

StudentLoginSceneController.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",
"Oooooops!!!", 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();
}
}

```



```

        <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: #ffffff2;" />
<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",
"Oooooops!!!", 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: #ffffff2;" />
    </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>>() {

```

```

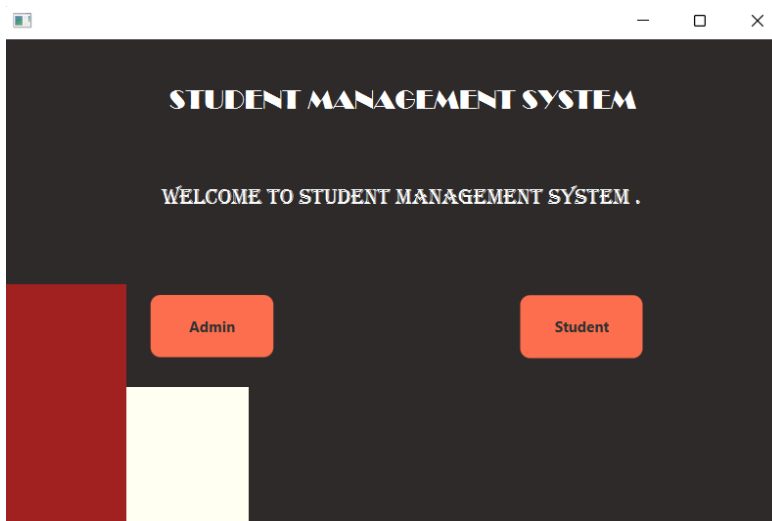
        public ObservableValue<String>
call(CellDataFeatures<ObservableList, String> param) {
            return new
SimpleStringProperty(param.getValue().get(j).toString());
        }
    });
    table.getColumns().addAll(col);
}

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);
}
}
}

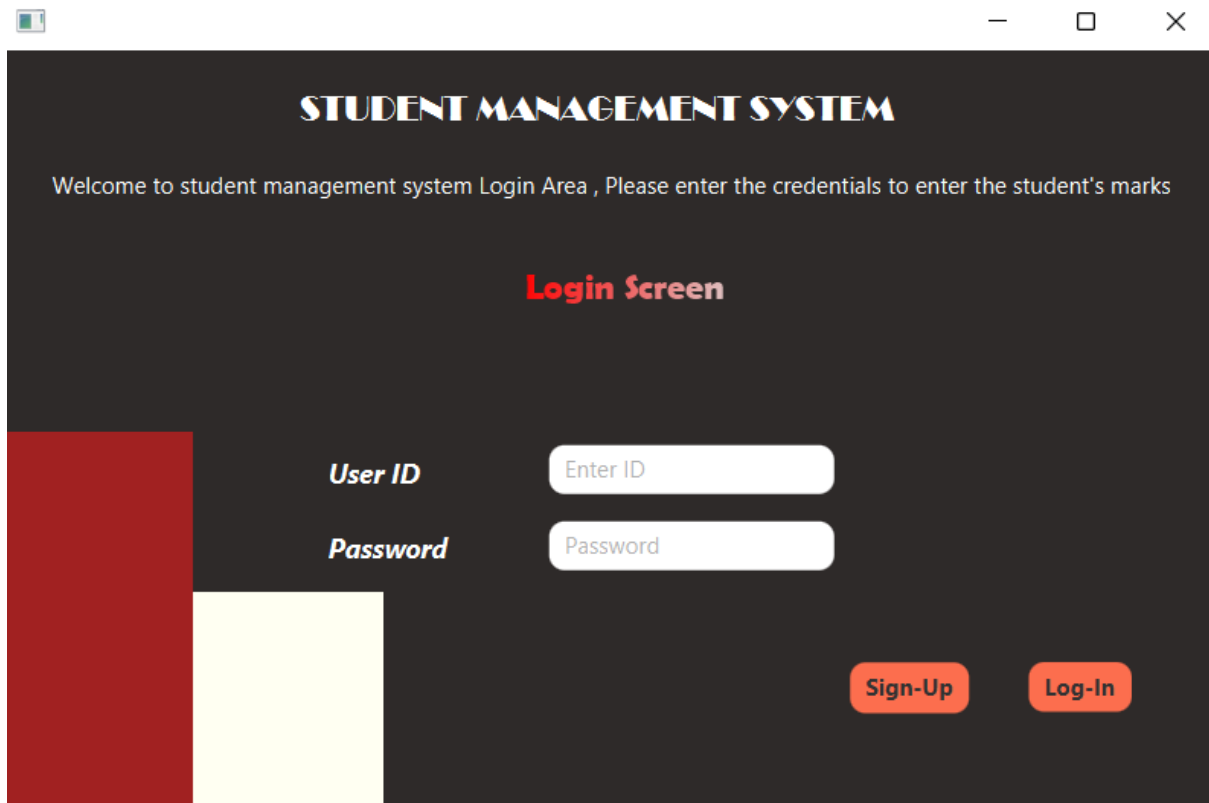
```

Outputs:-

1. Welcome Screen

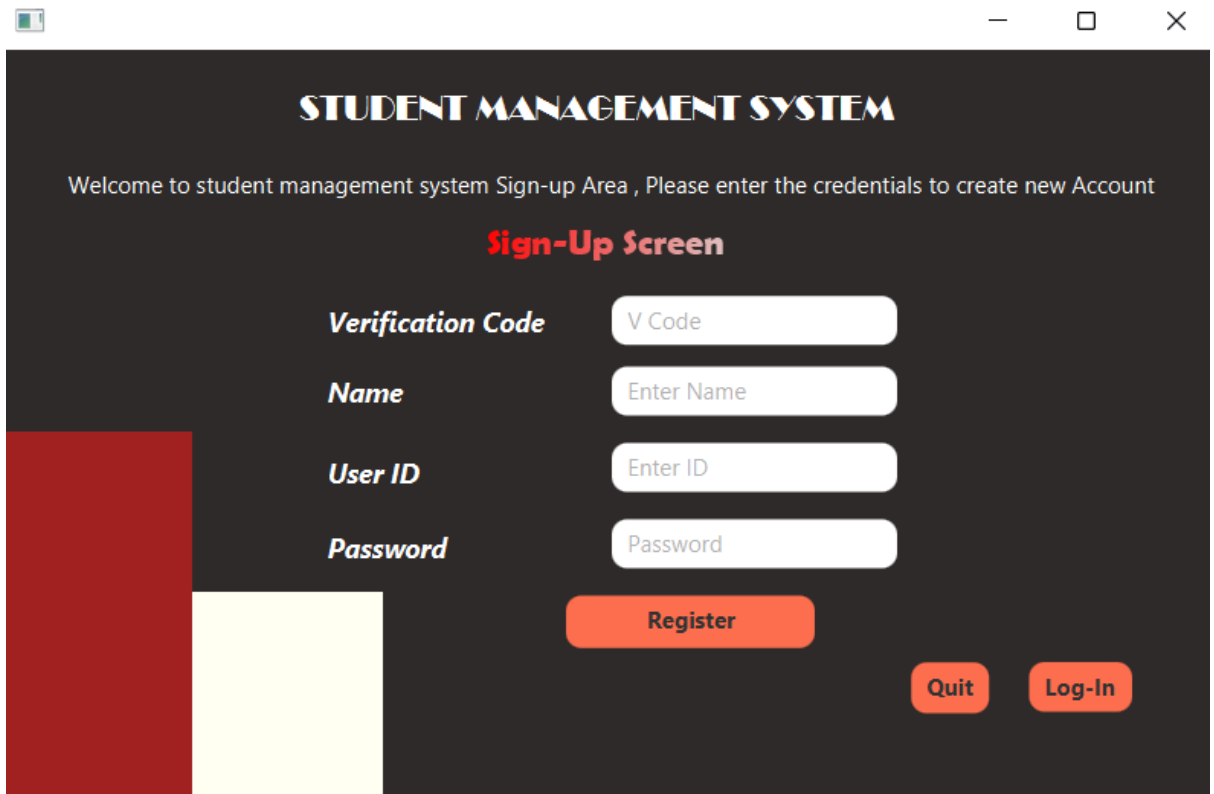


2. Admin Login Screen



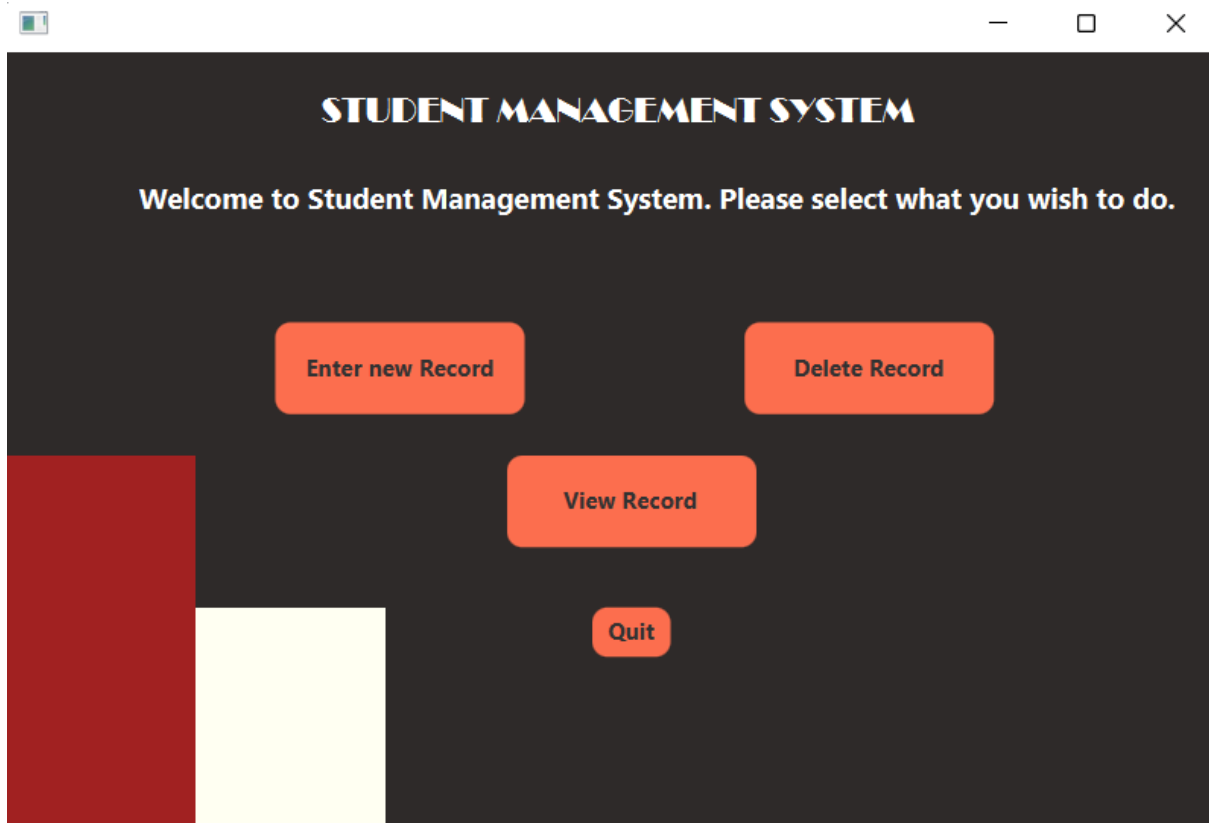
A screenshot of the Admin Login Screen for the Student Management System. The screen has a dark gray background. At the top, the title "STUDENT MANAGEMENT SYSTEM" is displayed in white, bold, uppercase letters. Below the title, a welcome message reads: "Welcome to student management system Login Area , Please enter the credentials to enter the student's marks". The screen is titled "Login Screen" in red, bold, italicized text. On the left side, there are two colored rectangular blocks: a red one on top and a yellow one below it. The login form consists of two input fields: "User ID" with a placeholder "Enter ID" and "Password" with a placeholder "Password". Both fields are white with rounded corners. To the right of the input fields are two orange buttons: "Sign-Up" and "Log-In".

3. Admin Sign Up Screen



A screenshot of the Admin Sign Up Screen for the Student Management System. The screen has a dark gray background. At the top, the title "STUDENT MANAGEMENT SYSTEM" is displayed in white, bold, uppercase letters. Below the title, a welcome message reads: "Welcome to student management system Sign-up Area , Please enter the credentials to create new Account". The screen is titled "Sign-Up Screen" in red, bold, italicized text. On the left side, there are two colored rectangular blocks: a red one on top and a yellow one below it. The sign-up form consists of four input fields: "Verification Code" with a placeholder "V Code", "Name" with a placeholder "Enter Name", "User ID" with a placeholder "Enter ID", and "Password" with a placeholder "Password". All fields are white with rounded corners. Below the input fields is an orange button labeled "Register". To the right of the "Register" button are two orange buttons: "Quit" and "Log-In".

4. Admin Options Screen



A screenshot of a web application window titled "STUDENT MANAGEMENT SYSTEM". The window has a dark gray background. At the top, it says "Welcome to Student Management System. Please select what you wish to do." Below this, there are four orange buttons: "Enter new Record", "Delete Record", "View Record", and "Quit". The buttons are arranged in a grid-like fashion. On the left side of the window, there is a vertical red bar and a yellow bar.

STUDENT MANAGEMENT SYSTEM

Welcome to Student Management System. Please select what you wish to do.

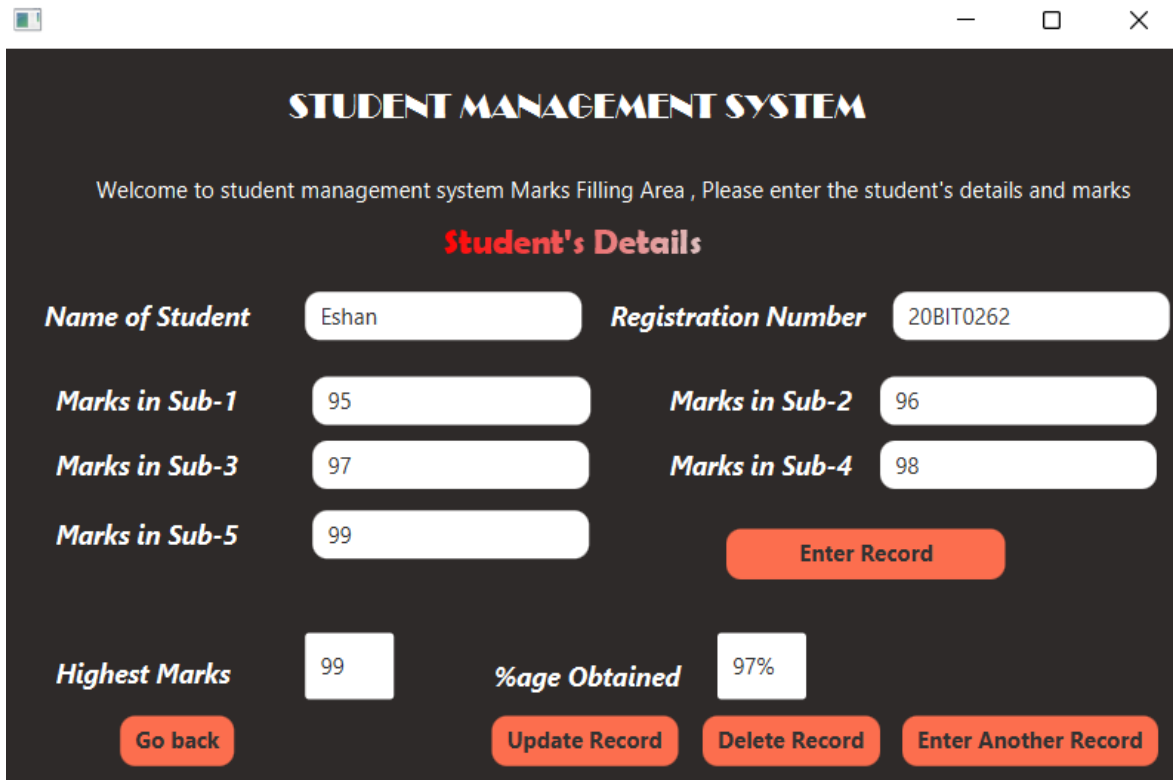
Enter new Record

Delete Record

View Record

Quit

5. New Record Screen



A screenshot of a web application window titled "STUDENT MANAGEMENT SYSTEM". The window has a dark gray background. At the top, it says "Welcome to student management system Marks Filling Area , Please enter the student's details and marks". Below this, there is a section titled "Student's Details" in red. This section contains several input fields for student information and marks. At the bottom, there are four orange buttons: "Go back", "Update Record", "Delete Record", and "Enter Another Record".

STUDENT MANAGEMENT SYSTEM

Welcome to student management system Marks Filling Area , Please enter the student's details and marks

Student's Details

Name of Student: Eshan

Registration Number: 20BIT0262

Marks in Sub-1: 95

Marks in Sub-2: 96

Marks in Sub-3: 97

Marks in Sub-4: 98

Marks in Sub-5: 99

Highest Marks: 99

%age Obtained: 97%

Enter Record

Go back

Update Record

Delete Record

Enter Another Record

6. Delete Record Screen

The screenshot shows a web application window titled "STUDENT MANAGEMENT SYSTEM". Below the title, a welcome message reads: "Welcome to student management system Record deleting Area , Please enter the student's details". The section is titled "Student's Details" in red. There are two input fields: "Name of Student" with the value "Hamid" and "Registration Number" with the value "20BIT0222". A red "Delete Record" button is positioned to the right of the registration number field. At the bottom, there are three red buttons: "Go Back", "View Record", and "Enter Another Record".

STUDENT MANAGEMENT SYSTEM

Welcome to student management system Record deleting Area , Please enter the student's details

Student's Details

Name of Student

Registration Number

Delete Record

Go Back **View Record** **Enter Another Record**

7. View Record Screen

The screenshot shows a web application window titled "STUDENT MANAGEMENT SYSTEM". Below the title, a welcome message reads: "Welcome to Student Management System. Please enter details to view record". The section is titled "Student's Details" in red. There are two input fields: "Name of Student" with the placeholder "Enter Name" and "Registration Number" with the placeholder "Enter Reg. No.". Below the input fields is a table with 8 columns: "name", "registration_number", "Sub1", "Sub2", "Sub3", "Sub4", "Sub5", and "HighestMar". The table contains 5 rows of student data. At the bottom, there are four red buttons: "Go Back", "Clear All", "View All Record", and "View Record".

STUDENT MANAGEMENT SYSTEM

Welcome to Student Management System. Please enter details to view record

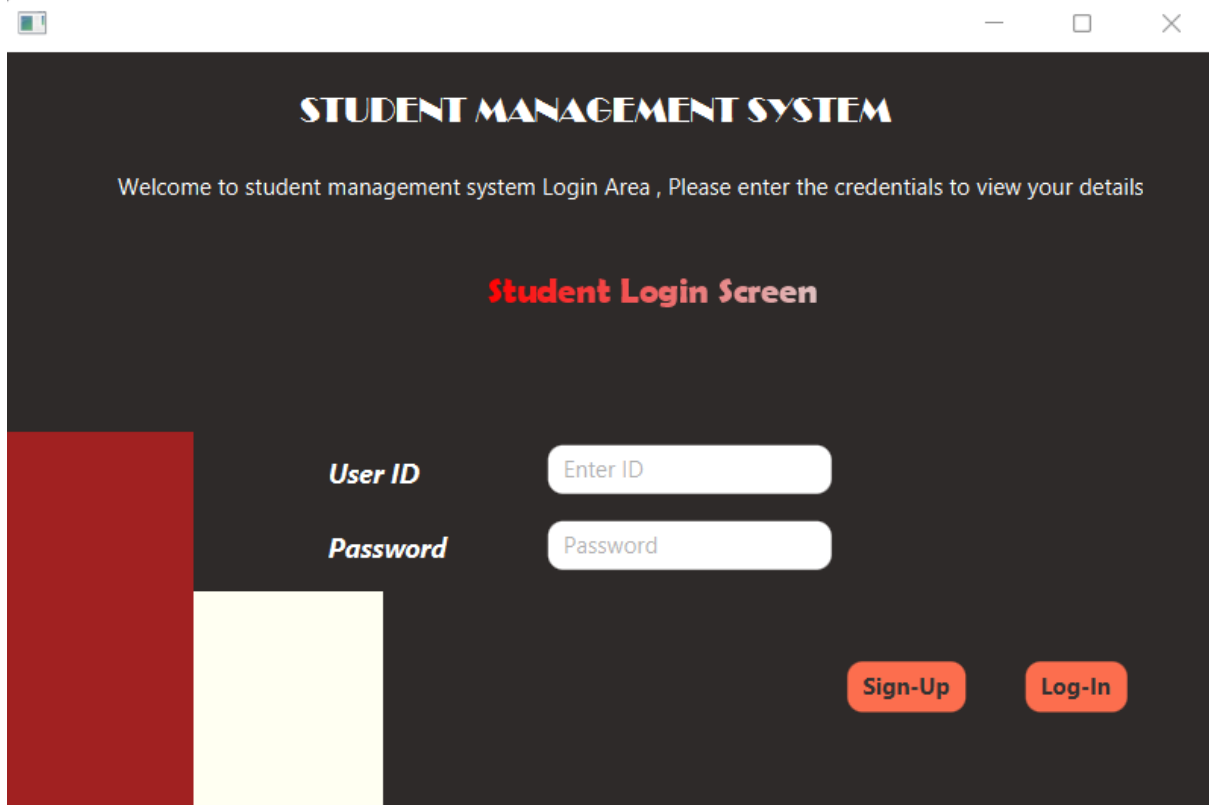
Student's Details

Name of Student *Registration Number*

name	registration_number	Sub1	Sub2	Sub3	Sub4	Sub5	HighestMar
Ramandeep	20BIT0111	78	85	75	86	79	86
Eshan	20BIT0262	95	96	97	98	99	99
Rishabh	20BIT0852	89	95	96	97	95	97
Himanshi	20CSE7189	97	87	98	47	99	99
D... L... L...	20BIT00345	54	87	88	57	86	86

Go Back **Clear All** **View All Record** **View Record**

8. Student Login Screen



A screenshot of a web browser displaying the Student Login Screen of a Student Management System. The browser window has a title bar with a small icon on the left and standard minimize, maximize, and close buttons on the right. The page has a dark gray background. At the top, the text "STUDENT MANAGEMENT SYSTEM" is centered in a white, bold, serif font. Below it, a white message reads: "Welcome to student management system Login Area , Please enter the credentials to view your details". The title "Student Login Screen" is centered in a red, bold, sans-serif font. On the left side, there is a vertical red bar and a yellow rectangular area. The login form consists of two white input fields: "Enter ID" and "Password". To the left of these fields are the labels "User ID" and "Password" in a white, italicized, serif font. At the bottom right, there are two red buttons with white text: "Sign-Up" and "Log-In".

STUDENT MANAGEMENT SYSTEM

Welcome to student management system Login Area , Please enter the credentials to view your details

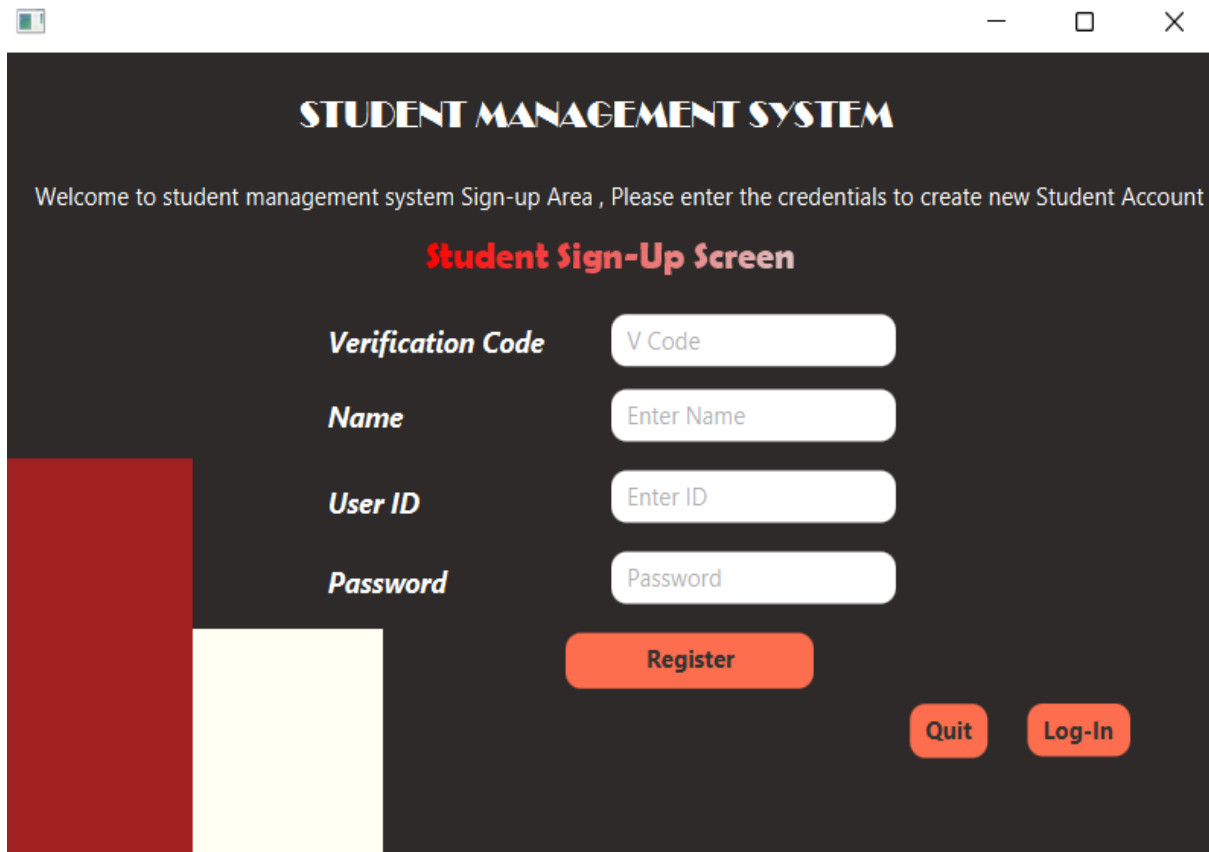
Student Login Screen

User ID Enter ID

Password Password

Sign-Up Log-In

9. Student Sign Up Screen



A screenshot of a web browser displaying the Student Sign-Up Screen of a Student Management System. The browser window has a title bar with a small icon on the left and standard minimize, maximize, and close buttons on the right. The page has a dark gray background. At the top, the text "STUDENT MANAGEMENT SYSTEM" is centered in a white, bold, serif font. Below it, a white message reads: "Welcome to student management system Sign-up Area , Please enter the credentials to create new Student Account". The title "Student Sign-Up Screen" is centered in a red, bold, sans-serif font. On the left side, there is a vertical red bar and a yellow rectangular area. The sign-up form consists of four white input fields: "V Code", "Enter Name", "Enter ID", and "Password". To the left of these fields are the labels "Verification Code", "Name", "User ID", and "Password" in a white, italicized, serif font. At the bottom center, there is a red button with white text: "Register". At the bottom right, there are two red buttons with white text: "Quit" and "Log-In".

STUDENT MANAGEMENT SYSTEM

Welcome to student management system Sign-up Area , Please enter the credentials to create new Student Account

Student Sign-Up Screen

Verification Code V Code

Name Enter Name

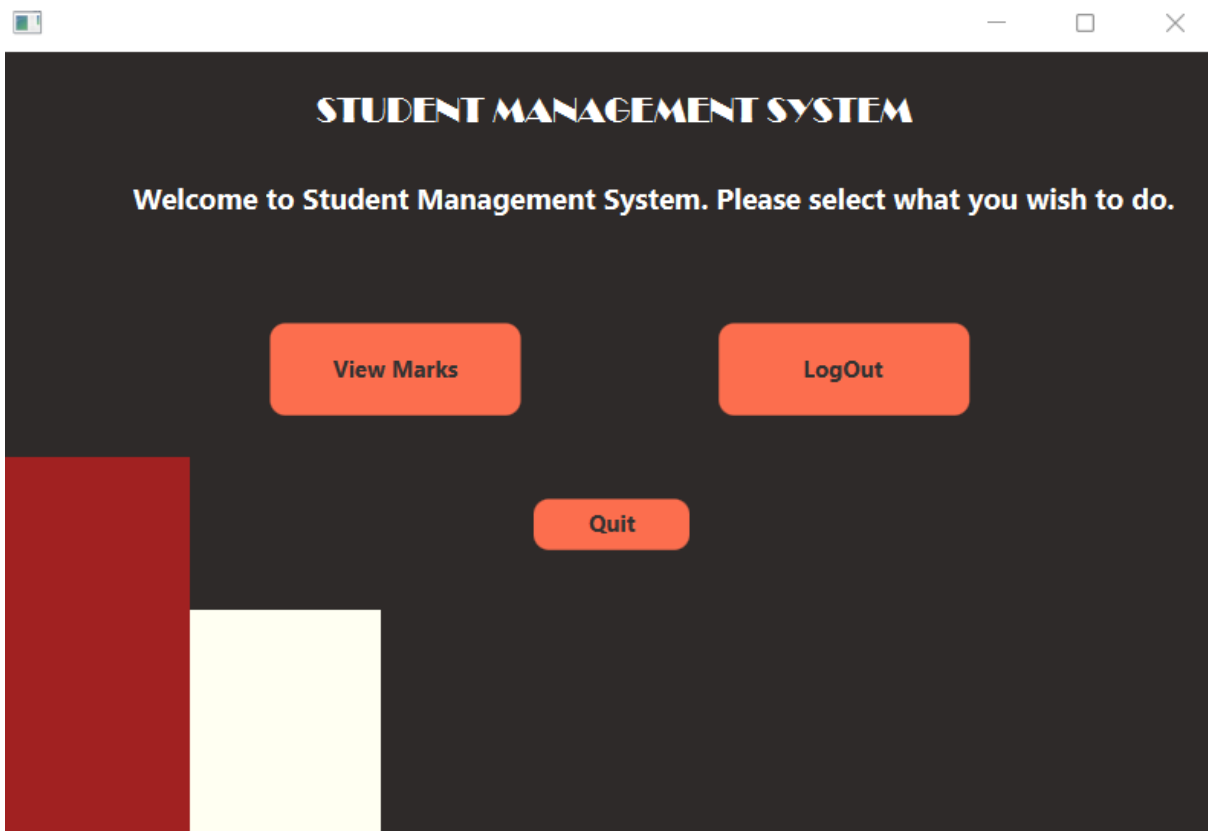
User ID Enter ID

Password Password

Register

Quit Log-In

10. Student Option Screen



11. Student View Marks Screen

The screenshot shows a window titled "STUDENT MANAGEMENT SYSTEM". The main text reads: "Welcome to Student Management System. Please enter details to view record". Below this, the text "Student's Details" is displayed in red. There are two input fields: "Name" with the value "Eshan" and "Registration Number" with the value "20BIT0262". Below these fields is a table with 8 columns: "Sub1", "Sub2", "Sub3", "Sub4", "Sub5", "HighestMarks", "Percentage", and an empty column. The first row of data shows values: 95, 96, 97, 98, 99, 99, 97. Below the table, there are two orange buttons: "Go Back" on the left and "View Record" on the right.

Sub1	Sub2	Sub3	Sub4	Sub5	HighestMarks	Percentage	
95	96	97	98	99	99	97	

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.