NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY

MILTARY COLLEGE OF SIGNALS, NUST

Object Oriented Programming (OOP)

(CS-212)

- **Submitted by:** MUHAMMAD AHMAD SULTAN

- **RANK:** NC
- **CMS ID:** 408709
- **COURSE:** BESE-28
- **SECTION:** C

- **DEPARTMENT:** COMPUTER SOFTWARE ENGINEERING (CSE)

- **Submitted to:** LE Muhammad Asif

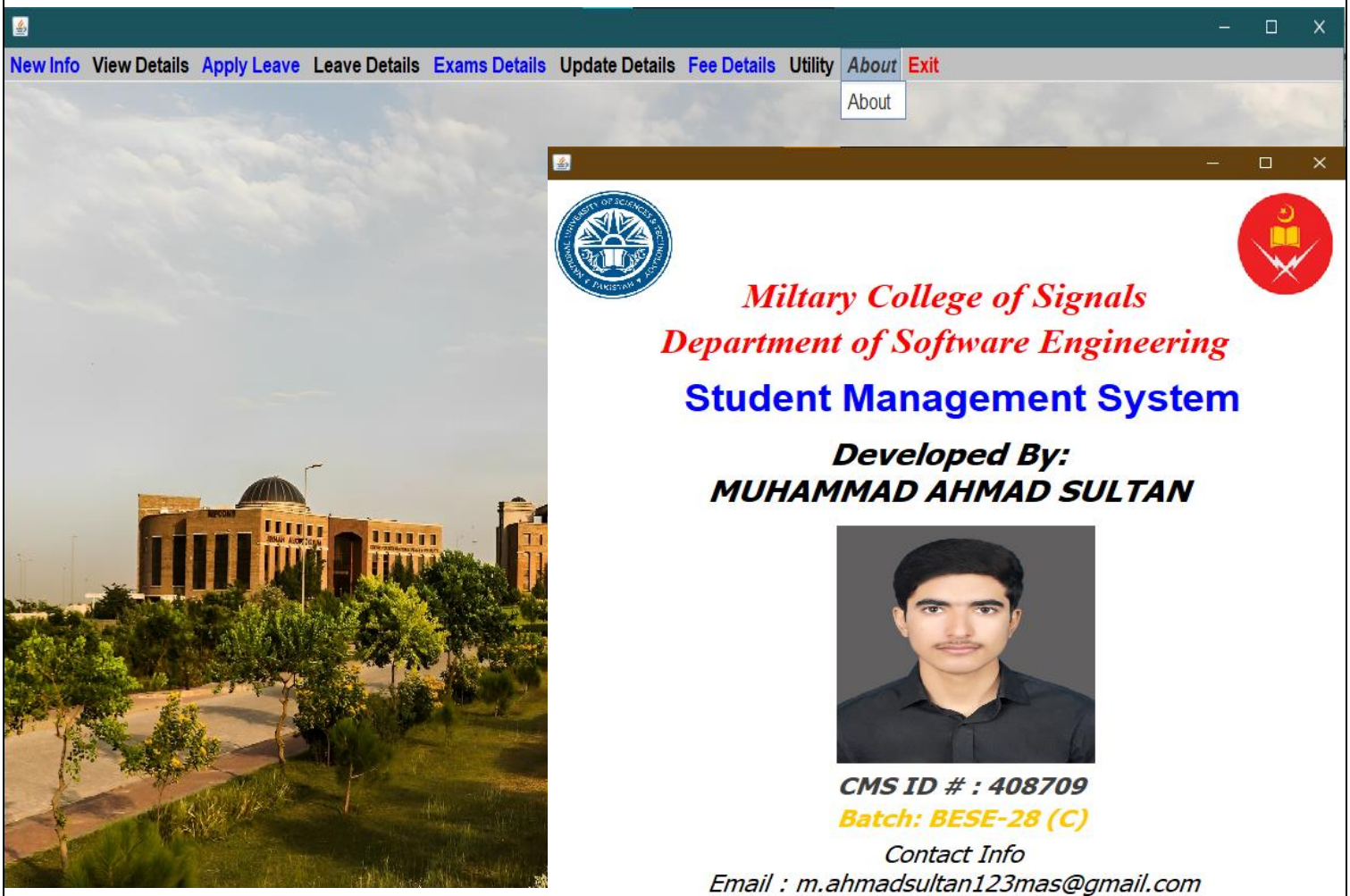
- **DATED:** 13-05-2023

OPEN ENDED LAB

MILTARY COLLEGE OF SIGNALS

- ## STUDENT MANAGEMENT SYSTEM

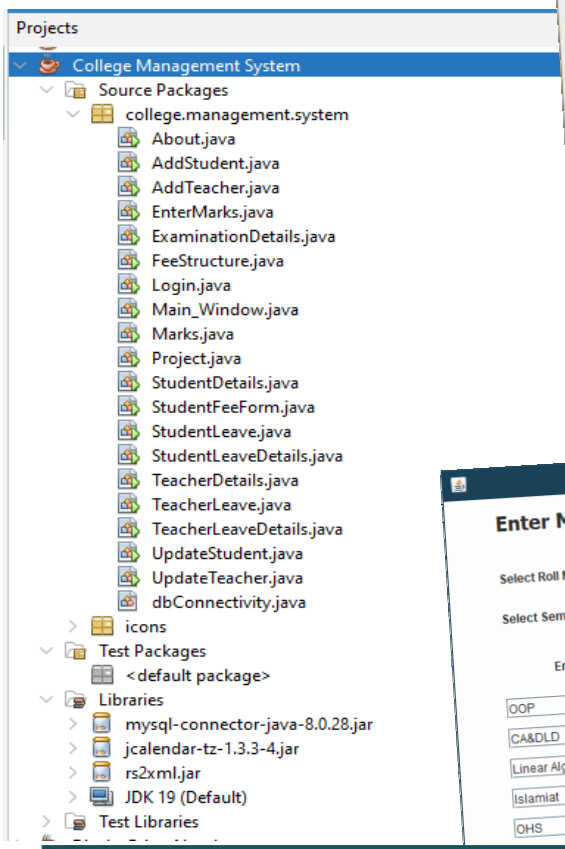
(MCS-SMS)

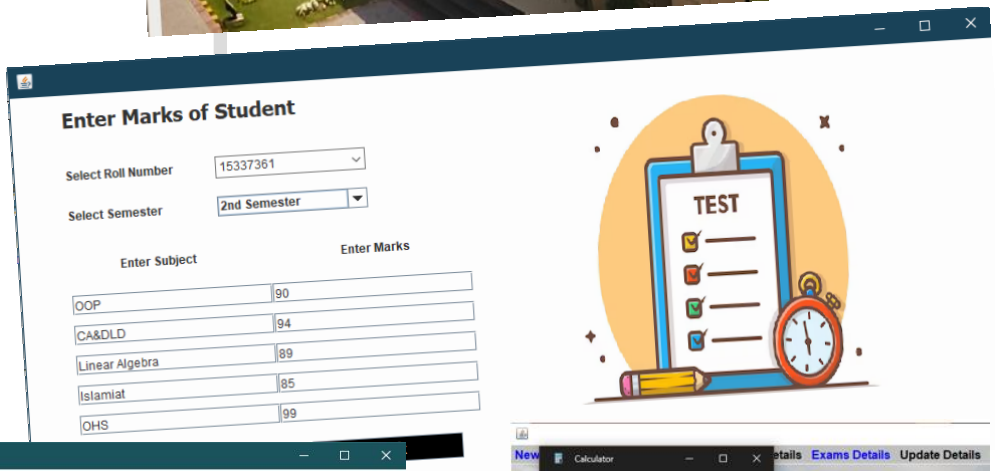


New Info
View Details
Apply Leave
Leave Details
Exams Details
Update Details
Fee Details
Utility
About
Exit

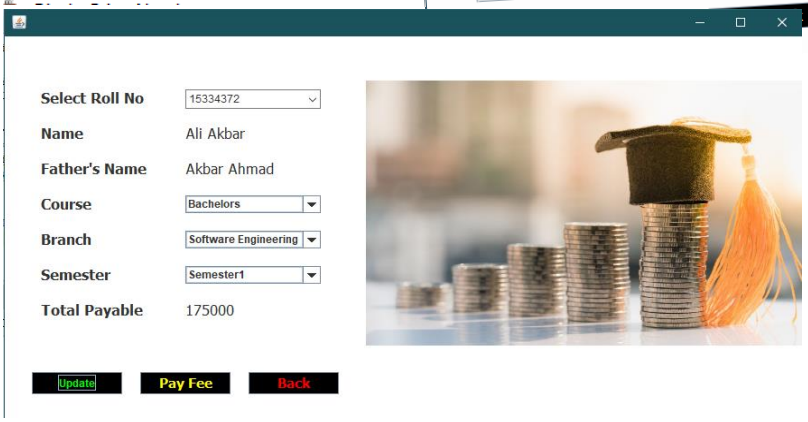
Username
mas
Password
Login
Cancel

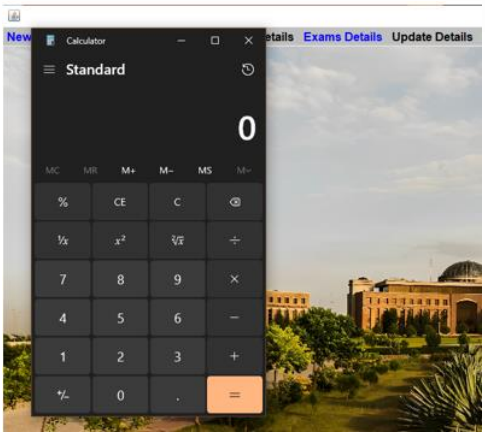
HARRIS
Signals Center Of Excellence


Projects
College Management System
Source Packages
college.management.system
About.java
AddStudent.java
AddTeacher.java
EnterMarks.java
ExaminationDetails.java
FeeStructure.java
Login.java
Main_Window.java
Marks.java
Project.java
StudentDetails.java
StudentFeeForm.java
StudentLeave.java
StudentLeaveDetails.java
TeacherDetails.java
TeacherLeave.java
TeacherLeaveDetails.java
UpdateStudent.java
UpdateTeacher.java
dbConnectivity.java
icons
Test Packages
<default package>
Libraries
mysql-connector-java-8.0.28.jar
jcalendar-tz-1.3.3-4.jar
rs2xml.jar
JDK 19 (Default)
Test Libraries


Enter Marks of Student
Select Roll Number
15337361
Select Semester
2nd Semester
Enter Subject
Enter Marks
OOP
90
CA&DLD
94
Linear Algebra
89
Islamiat
85
OHS
99

TEST


Select Roll No
15334372
Name
Ali Akbar
Father's Name
Akbar Ahmad
Course
Bachelors
Branch
Software Engineering
Semester
Semester1
Total Payable
175000
Update
Pay Fee
Back


Exams Details
Update Details
Calculator
Standard
0

➢ PROGRAM CODE FOR MAIN WINDOW

```
package college.management.system;
/**
 *
 * @author Muhammad Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
public class Main_Window extends JFrame implements Runnable {
   Thread t;
   Main_Window () {

      ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/mcs@img.png"));
      Image i2 = i1.getImage().getScaledInstance(1000, 700, Image.SCALE_DEFAULT);
      ImageIcon i3 = new ImageIcon(i2);
      JLabel image = new JLabel(i3);
      add(image);

      t = new Thread(this);
      t.start();

      setVisible(true);

      int x = 1;
      for (int i = 2; i <= 600; i+=4, x+=1) {
         setLocation(600 - ((i + x)/2), 350 - (i/2));
         setSize(i + 3*x, i + x/2);

         try {
            Thread.sleep(10);
         } catch (Exception e) {}
      }
   }
```

```
    public void run() {
        try {
            Thread.sleep(7000);
            setVisible(false);
            // Next Frame
            new Login();
        } catch (Exception e) {
        }
    }
    public static void main(String[] args) {
        new Main_Window();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR MAIN WINDOW**

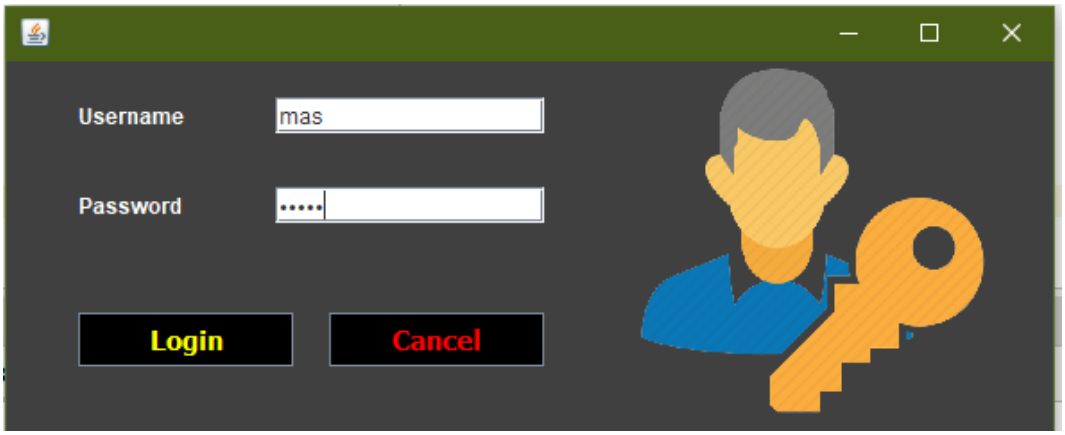
➢ PROGRAM CODE FOR LOGIN WINDOW

```
package college.management.system;

/**
 *
 * @author Muhammad  Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.sql.*;

public class Login extends JFrame implements ActionListener{

   JButton login, cancel;
   JTextField username, password;

   Login () {
      getContentPane().setBackground(Color.DARK_GRAY);
      setLayout(null);
      JLabel lblusername = new JLabel("Username");
      lblusername.setBounds(40, 20, 100, 20);
      lblusername.setForeground(Color.WHITE);
      add(lblusername);
      username = new JTextField();
      username.setBounds(150, 20, 150, 20);
      add(username);

      JLabel lblpassword = new JLabel("Password");
      lblpassword.setBounds(40, 70, 100, 20);
      lblpassword.setForeground(Color.WHITE);
      add(lblpassword);
```

```
    password = new JPasswordField();
    password.setBounds(150, 70, 150, 20);
    add(password);
    login = new JButton("Login");
    login.setBounds(40, 140, 120, 30);
    login.setBackground(Color.BLACK);
    login.setForeground(Color.YELLOW);
    login.addActionListener(this);
    login.setFont(new Font("Tahoma", Font.BOLD, 15));
    add(login);

    cancel = new JButton("Cancel");
    cancel.setBounds(180, 140, 120, 30);
    cancel.setBackground(Color.BLACK);
    cancel.setForeground(Color.RED);
    cancel.addActionListener(this);
    cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
    add(cancel);
    ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/login.png"));
    Image i2 = i1.getImage().getScaledInstance(200, 200, Image.SCALE_DEFAULT);
    ImageIcon i3 = new ImageIcon(i2);
    JLabel image = new JLabel(i3);
    image.setBounds(350, 0, 200, 200);
    add(image);
    setSize(600, 300);
    setLocation(500, 250);
    setVisible(true);
}

public void actionPerformed(ActionEvent ae) {
    if (ae.getSource() == login) {
        String username_ = this.username.getText();
        String password_ = this.password.getText();
```

```
            String query = "select * from login where username='"+username_+"' and password='"+password_+"'";
            try {
                dbConnectivity c = new dbConnectivity();
                ResultSet rs = c.s.executeQuery(query);
                if (rs.next()) {
                    setVisible(false);
                    new Project();
                } else {
                    JOptionPane.showMessageDialog(null, "Invalid username or password");
                    setVisible(false);
                }
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == cancel) {
            setVisible(false);
        }
    }
    public static void main(String[] args) {
        new Login();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR LOGIN WINDOW**



➢ PROGRAM CODE FOR DASHBOARD WINDOW

```
package college.management.system;

/**
 *
 * @author Muhammad  Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class Project extends JFrame implements ActionListener {

    Project() {
        setSize(1300, 700);

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/Nust.png"));
        Image i2 = i1.getImage().getScaledInstance(1300, 700, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
        JLabel image = new JLabel(i3);
        add(image);

      JMenuBar mb = new JMenuBar();
      mb.setBackground(Color.LIGHT_GRAY);

        // New Information
        JMenu newInformation = new JMenu("New Info");
        newInformation.setForeground(Color.BLUE);
        newInformation.setFont(new Font("sansserif", Font.BOLD, 16));
        mb.add(newInformation);

        JMenuItem facultyInfo = new JMenuItem("New Faculty Information");
```

```
facultyInfo.setBackground(Color.WHITE);
facultyInfo.addActionListener(this);
facultyInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(facultyInfo);

JMenuItem studentInfo = new JMenuItem("New Student Information");
studentInfo.setBackground(Color.WHITE);
studentInfo.addActionListener(this);
studentInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(studentInfo);

// Details
JMenu details = new JMenu("View Details");
details.setForeground(Color.BLACK);
details.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(details);

JMenuItem facultydetails = new JMenuItem("View Faculty Details");
facultydetails.setBackground(Color.WHITE);
facultydetails.addActionListener(this);
facultydetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(facultydetails);

JMenuItem studentdetails = new JMenuItem("View Student Details");
studentdetails.setBackground(Color.WHITE);
studentdetails.addActionListener(this);
studentdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(studentdetails);

// Leave
JMenu leave = new JMenu("Apply Leave");
leave.setForeground(Color.BLUE);
leave.setFont(new Font("sansserif", Font.BOLD, 16));
```

```
mb.add(leave);

JMenuItem facultyleave = new JMenuItem("Faculty Leave");
facultyleave.setBackground(Color.WHITE);
facultyleave.addActionListener(this);
facultyleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(facultyleave);

JMenuItem studentleave = new JMenuItem("Student Leave");
studentleave.setBackground(Color.WHITE);
studentleave.addActionListener(this);
studentleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(studentleave);

// Leave Details
JMenu leaveDetails = new JMenu("Leave Details");
leaveDetails.setForeground(Color.BLACK);
leaveDetails.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leaveDetails);

JMenuItem facultyleavedetails = new JMenuItem("Faculty Leave Details");
facultyleavedetails.setBackground(Color.WHITE);
facultyleavedetails.addActionListener(this);
facultyleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(facultyleavedetails);

JMenuItem studentleavedetails = new JMenuItem("Student Leave Details");
studentleavedetails.setBackground(Color.WHITE);
studentleavedetails.addActionListener(this);
studentleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(studentleavedetails);

// Exams
```

```
JMenu exam = new JMenu("Exams Details");
exam.setForeground(Color.BLUE);
exam.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(exam);

JMenuItem examinationdetails = new JMenuItem("Examination Results");
examinationdetails.setBackground(Color.WHITE);
examinationdetails.addActionListener(this);
examinationdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(examinationdetails);

JMenuItem entermarks = new JMenuItem("Enter Marks");
entermarks.setBackground(Color.WHITE);
entermarks.addActionListener(this);
entermarks.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(entermarks);

// UpdateInfo
JMenu updateInfo = new JMenu("Update Details");
updateInfo.setForeground(Color.BLACK);
updateInfo.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(updateInfo);

JMenuItem updatefacultyinfo = new JMenuItem("Update Faculty Details");
updatefacultyinfo.setBackground(Color.WHITE);
updatefacultyinfo.addActionListener(this);
updatefacultyinfo.setFont(new Font("sansserif", Font.PLAIN, 16));
updateInfo.add(updatefacultyinfo);

JMenuItem updatestudentinfo = new JMenuItem("Update Student Details");
updatestudentinfo.setBackground(Color.WHITE);
updatestudentinfo.addActionListener(this);
updatestudentinfo .setFont(new Font("sansserif", Font.PLAIN, 16));
```

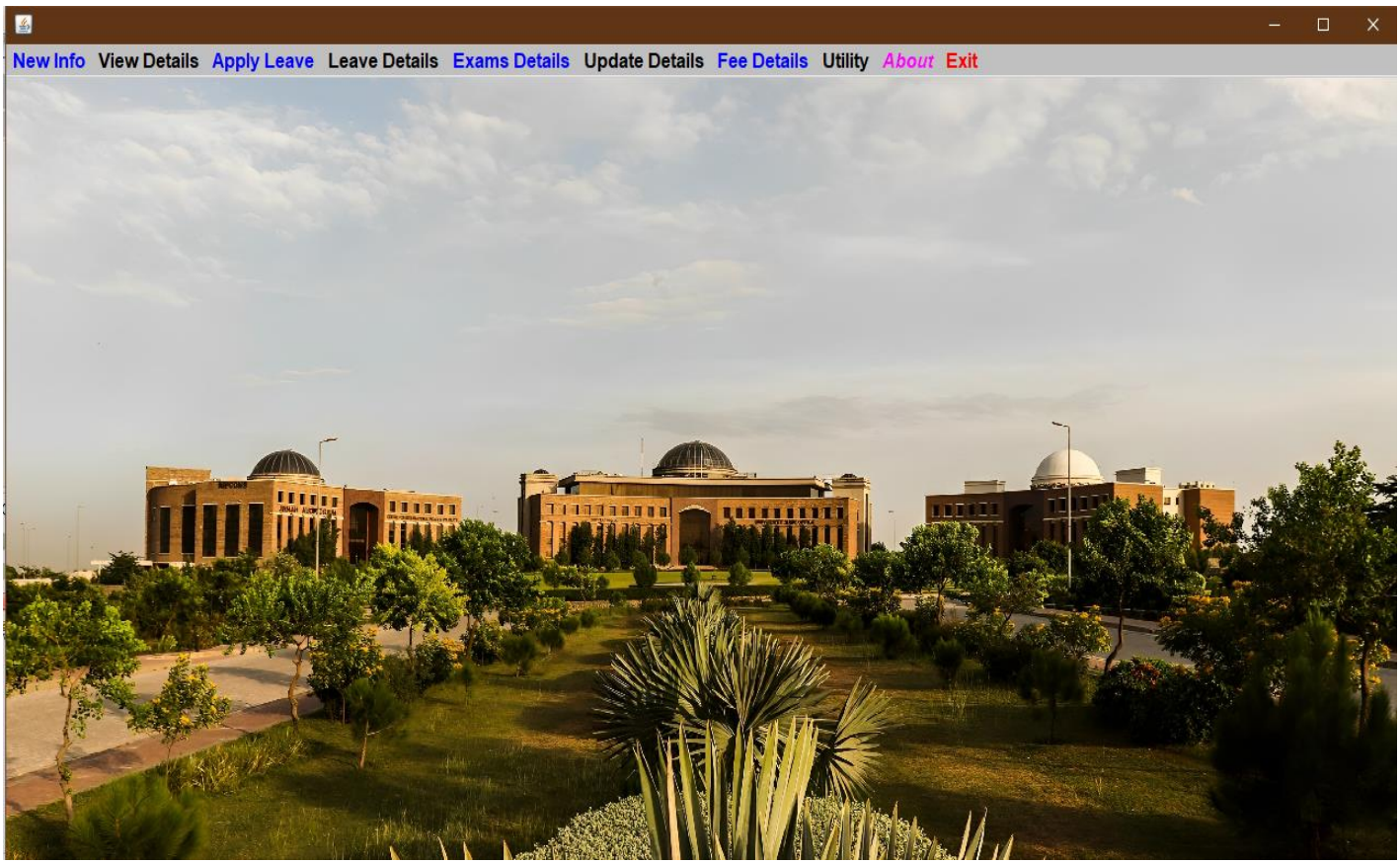
```
updateInfo.add(updatestudentinfo);

// fee
JMenu fee = new JMenu("Fee Details");
fee.setForeground(Color.BLUE);
fee.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(fee);

JMenuItem feestructure = new JMenuItem("Fee Structure");
feestructure.setBackground(Color.WHITE);
feestructure.addActionListener(this);
feestructure .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feestructure);

JMenuItem feeform = new JMenuItem("Student Fee Form");
feeform.setBackground(Color.WHITE);
feeform.addActionListener(this);
feeform .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feeform);

// Utility
JMenu utility = new JMenu("Utility");
utility.setForeground(Color.BLACK);
utility.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(utility);

JMenuItem notepad = new JMenuItem("Notepad");
notepad.setBackground(Color.BLACK);
notepad.addActionListener(this);
notepad .setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(notepad);
JMenuItem calc = new JMenuItem("Calculator");
calc.setBackground(Color.WHITE);
```

```
    calc.addActionListener(this);
    calc.setFont(new Font("sansserif", Font.PLAIN, 16));
    utility.add(calc);

    // about
    JMenu about = new JMenu("About");
    about.setForeground(Color.MAGENTA);
    about.setFont(new Font("sansserif", Font.BOLD|Font.ITALIC, 16));
    mb.add(about);
    JMenuItem ab = new JMenuItem("About");
    ab.setBackground(Color.WHITE);
    ab.addActionListener(this);
    ab.setFont(new Font("sansserif", Font.PLAIN, 16));
    about.add(ab);
    // exit
    JMenu exit = new JMenu("Exit");
    exit.setForeground(Color.RED);
    exit.setFont(new Font("sansserif", Font.BOLD, 16));
    mb.add(exit);
    JMenuItem ex = new JMenuItem("Exit");
    ex.setBackground(Color.WHITE);
    ex.addActionListener(this);
    ex.setFont(new Font("sansserif", Font.PLAIN, 16));
    exit.add(ex);
    setJMenuBar(mb);
    setVisible(true);
}

public void actionPerformed(ActionEvent ae) {
    String msg = ae.getActionCommand();
    if (msg.equals("Exit")) {
        setVisible(false);
    } else if (msg.equals("Calculator")) {
```

```
    try {
        Runtime.getRuntime().exec("calc.exe");
    } catch (Exception e) {
    }
} else if (msg.equals("Notepad")) {
    try {
        Runtime.getRuntime().exec("notepad.exe");
    } catch (Exception e) {

    }
} else if (msg.equals("New Faculty Information")) {
    new AddTeacher();
} else if (msg.equals("New Student Information")) {
    new AddStudent();
} else if (msg.equals("View Faculty Details")) {
    new TeacherDetails();
} else if (msg.equals("View Student Details")) {
    new StudentDetails();
} else if (msg.equals("Faculty Leave")) {
    new TeacherLeave();
} else if (msg.equals("Student Leave")) {
    new StudentLeave();
} else if (msg.equals("Faculty Leave Details")) {
    new TeacherLeaveDetails();
} else if (msg.equals("Student Leave Details")) {
    new StudentLeaveDetails();
} else if (msg.equals("Update Faculty Details")) {
    new UpdateTeacher();
} else if (msg.equals("Update Student Details")) {
    new UpdateStudent();
} else if (msg.equals("Enter Marks")) {
    new EnterMarks();
} else if (msg.equals("Examination Results")) {
```

```
            new ExaminationDetails();
        } else if (msg.equals("Fee Structure")) {
            new FeeStructure();
        } else if (msg.equals("About")) {
            new About();
        } else if (msg.equals("Student Fee Form")) {
            new StudentFeeForm();
        }
    }
    public static void main(String[] args) {
        new Project();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR DASHBOARD WINDOW**



➢ PROGRAM CODE FOR ADD NEW STUDENT WINDOW

```
package college.management.system;


/**
 *
 * @author Muhammad Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.util.*;
import com.toedter.calendar.JDateChooser;
import java.awt.event.*;


public class AddStudent extends JFrame implements ActionListener{

    JTextField tfname, tffname, tfaddress, tfphone, tfemail, tfx, tfxii, tfcnic;
    JLabel labelrollno;
    JDateChooser dcdob;
    JComboBox cbcourse, cbbranch;
    JButton submit, cancel;

    Random ran = new Random();
    long first4 = Math.abs((ran.nextLong() % 9000L) + 1000L);

    AddStudent() {
```

```
setSize(900, 700);
setLocation(350, 50);

setLayout(null);

JLabel heading = new JLabel(" Student (New Comer) Info");
heading.setBounds(240, 30, 500, 50);
heading.setFont(new Font("serif", Font.BOLD, 30));
add(heading);

JLabel lblname = new JLabel("Name");
lblname.setBounds(50, 150, 100, 30);
lblname.setFont(new Font("serif", Font.BOLD, 20));
add(lblname);

tfname = new JTextField();
tfname.setBounds(200, 150, 150, 30);
add(tfname);

JLabel lblfname = new JLabel("Father's Name");
lblfname.setBounds(400, 150, 200, 30);
lblfname.setFont(new Font("serif", Font.BOLD, 20));
add(lblfname);

tffname = new JTextField();
tffname.setBounds(600, 150, 150, 30);
add(tffname);

JLabel lblrollno = new JLabel("Roll Number");
lblrollno.setBounds(50, 200, 200, 30);
lblrollno.setFont(new Font("serif", Font.BOLD, 20));
add(lblrollno);
```

```
labelrollno = new JLabel("1533"+first4);
labelrollno.setBounds(200, 200, 200, 30);
labelrollno.setFont(new Font("serif", Font.BOLD, 20));
add(labelrollno);

JLabel lbldob = new JLabel("Date of Birth");
lbldob.setBounds(400, 200, 200, 30);
lbldob.setFont(new Font("serif", Font.BOLD, 20));
add(lbldob);

dcdob = new JDateChooser();
dcdob.setBounds(600, 200, 150, 30);
add(dcdob);

JLabel lbladdress = new JLabel("Address");
lbladdress.setBounds(50, 250, 200, 30);
lbladdress.setFont(new Font("serif", Font.BOLD, 20));
add(lbladdress);

tfaddress = new JTextField();
tfaddress.setBounds(200, 250, 150, 30);
add(tfaddress);

JLabel lblphone = new JLabel("Phone");
lblphone.setBounds(400, 250, 200, 30);
lblphone.setFont(new Font("serif", Font.BOLD, 20));
add(lblphone);

tfphone = new JTextField();
tfphone.setBounds(600, 250, 150, 30);
add(tfphone);
```

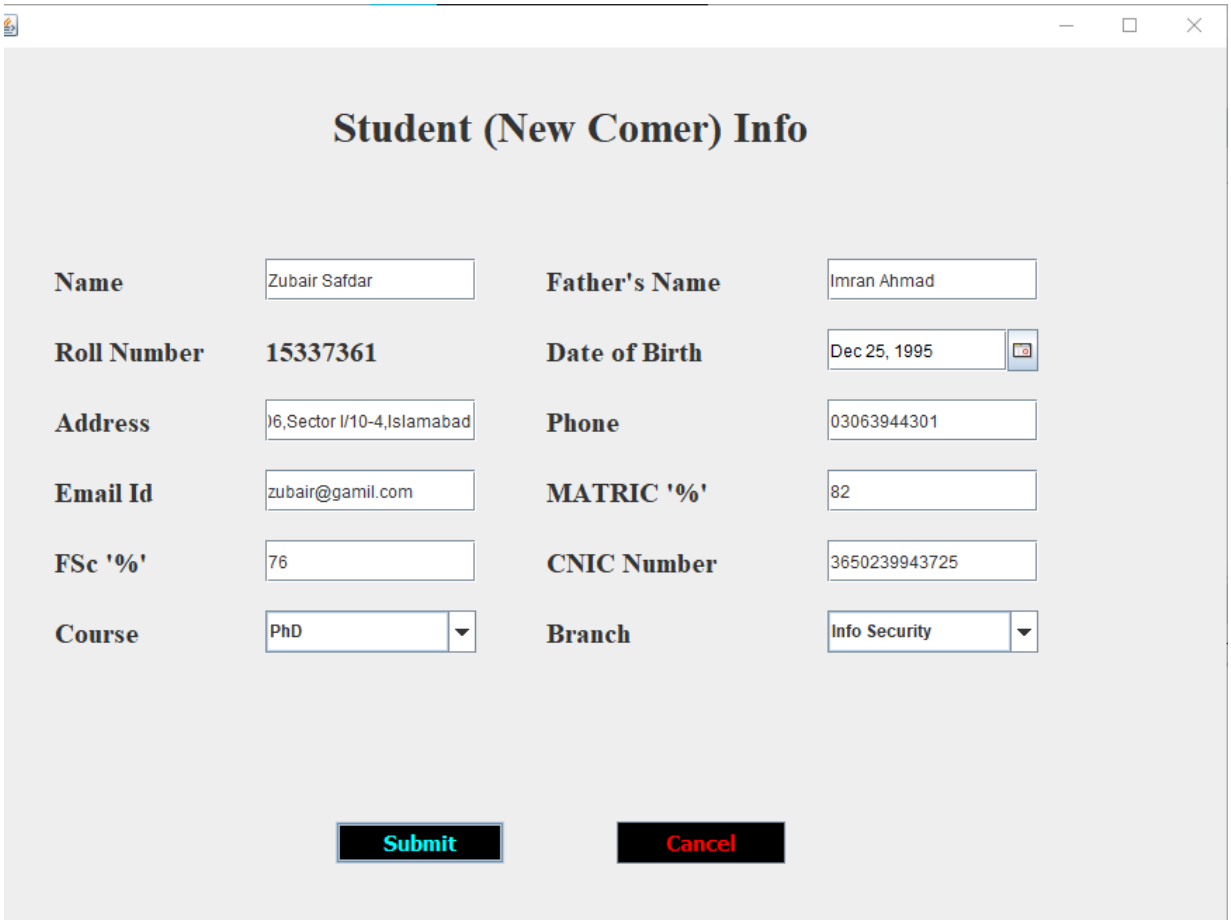
```
JLabel lblemail = new JLabel("Email Id");
lblemail.setBounds(50, 300, 200, 30);
lblemail.setFont(new Font("serif", Font.BOLD, 20));
add(lblemail);

tfemail = new JTextField();
tfemail.setBounds(200, 300, 150, 30);
add(tfemail);

JLabel lblx = new JLabel("MATRIC '%'");
lblx.setBounds(400, 300, 200, 30);
lblx.setFont(new Font("serif", Font.BOLD, 20));
add(lblx);

tfx = new JTextField();
tfx.setBounds(600, 300, 150, 30);
add(tfx);

JLabel lblxii = new JLabel("FSc '%' ");
lblxii.setBounds(50, 350, 200, 30);
lblxii.setFont(new Font("serif", Font.BOLD, 20));
add(lblxii);

tfxii = new JTextField();
tfxii.setBounds(200, 350, 150, 30);
add(tfxii);

JLabel lblcnic = new JLabel("CNIC Number");
lblcnic.setBounds(400, 350, 200, 30);
lblcnic.setFont(new Font("serif", Font.BOLD, 20));
add(lblcnic);

tfcnic = new JTextField();
```

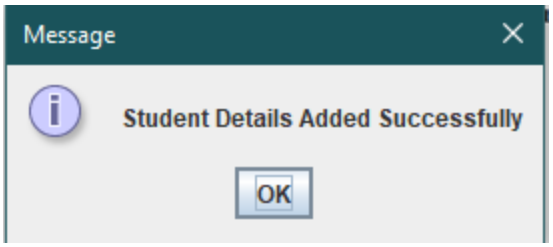
```
        tfcnic.setBounds(600, 350, 150, 30);
        add(tfcnic);

        JLabel lblcourse = new JLabel("Course");
        lblcourse.setBounds(50, 400, 200, 30);
        lblcourse.setFont(new Font("serif", Font.BOLD, 20));
        add(lblcourse);

        String course[] = {"Bachelors", "Masters", "PhD"};
        cbcourse = new JComboBox(course);
        cbcourse.setBounds(200, 400, 150, 30);
        cbcourse.setBackground(Color.WHITE);
        add(cbcourse);

        JLabel lblbranch = new JLabel("Branch");
        lblbranch.setBounds(400, 400, 200, 30);
        lblbranch.setFont(new Font("serif", Font.BOLD, 20));
        add(lblbranch);

        String branch[] = {"Software Engineering", "Computer Science", "Electrical Engineering", "Info Security",
"Telecom"};
        cbbranch = new JComboBox(branch);
        cbbranch.setBounds(600, 400, 150, 30);
        cbbranch.setBackground(Color.WHITE);
        add(cbbranch);

        submit = new JButton("Submit");
        submit.setBounds(250, 550, 120, 30);
        submit.setBackground(Color.BLACK);
        submit.setForeground(Color.CYAN);
        submit.addActionListener(this);
        submit.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(submit);
```

```
        cancel = new JButton("Cancel");
        cancel.setBounds(450, 550, 120, 30);
        cancel.setBackground(Color.BLACK);
        cancel.setForeground(Color.RED);
        cancel.addActionListener(this);
        cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(cancel);

        setVisible(true);
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            String name = tfname.getText();
            String fname = tffname.getText();
            String rollno = labelrollno.getText();
            String dob = ((JTextField) dcdob.getDateEditor().getUiComponent()).getText();
            String address = tfaddress.getText();
            String phone = tfphone.getText();
            String email = tfemail.getText();
            String x = tfx.getText();
            String xii = tfxii.getText();
            String cnic = tfcnic.getText();
            String course = (String) cbcourse.getSelectedItem();
            String branch = (String) cbbranch.getSelectedItem();

            try {
                String query = "insert into student values('"+name+"', '"+fname+"', '"+rollno+"', '"+dob+"', '"+address+"',
'"+phone+"', '"+email+"', '"+x+"', '"+xii+"', '"+cnic+"', '"+course+"', '"+branch+"')";

                dbConnectivity con = new dbConnectivity();
                con.s.executeUpdate(query);

                JOptionPane.showMessageDialog(null, "Student Details Added Successfully");
```

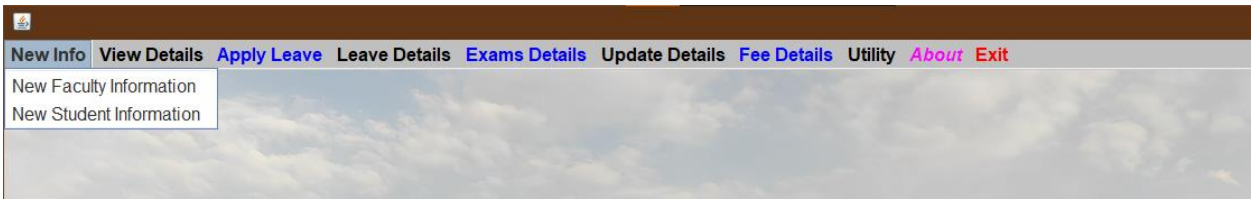
```
            setVisible(false);
        } catch (Exception e) {
            e.printStackTrace();
        }
    } else {
        setVisible(false);
    }
  }
  public static void main(String[] args) {
    new AddStudent();
  }
}
```

- ## OUTPUT (SCREENSHOT) FOR ADD NEW STUDENT WINDOW





➢ PROGRAM CODE FOR ADD NEW TEACHER WINDOW




```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.util.*;
import com.toedter.calendar.JDateChooser;
import java.awt.event.*;

public class AddTeacher extends JFrame implements ActionListener{

   JTextField tfname, tffname, tfaddress, tfphone, tfemail, tfx, tfxii, tfcnic;
```

```
JLabel labelempId;
JDateChooser dcdob;
JComboBox cbcourse, cbbranch;
JButton submit, cancel;

Random ran = new Random();
long first4 = Math.abs((ran.nextLong() % 9000L) + 1000L);

AddTeacher() {

   setSize(900, 700);
   setLocation(350, 50);

   setLayout(null);

   JLabel heading = new JLabel("New Teacher (Faculty) Details");
   heading.setBounds(260, 30, 500, 50);
   heading.setFont(new Font("serif", Font.BOLD, 30));
   add(heading);

   JLabel lblname = new JLabel("Name");
   lblname.setBounds(50, 150, 100, 30);
   lblname.setFont(new Font("serif", Font.BOLD, 20));
   add(lblname);

   tfname = new JTextField();
   tfname.setBounds(200, 150, 150, 30);
   add(tfname);

   JLabel lblfname = new JLabel("Father's Name");
   lblfname.setBounds(400, 150, 200, 30);
   lblfname.setFont(new Font("serif", Font.BOLD, 20));
   add(lblfname);
```

```
tffname = new JTextField();
tffname.setBounds(600, 150, 150, 30);
add(tffname);

JLabel lblempId = new JLabel("Employee Id");
lblempId.setBounds(50, 200, 200, 30);
lblempId.setFont(new Font("serif", Font.BOLD, 20));
add(lblempId);

labelempId = new JLabel("101"+first4);
labelempId.setBounds(200, 200, 200, 30);
labelempId.setFont(new Font("serif", Font.BOLD, 20));
add(labelempId);

JLabel lbldob = new JLabel("Date of Birth");
lbldob.setBounds(400, 200, 200, 30);
lbldob.setFont(new Font("serif", Font.BOLD, 20));
add(lbldob);

dcdob = new JDateChooser();
dcdob.setBounds(600, 200, 150, 30);
add(dcdob);

JLabel lbladdress = new JLabel("Address");
lbladdress.setBounds(50, 250, 200, 30);
lbladdress.setFont(new Font("serif", Font.BOLD, 20));
add(lbladdress);

tfaddress = new JTextField();
tfaddress.setBounds(200, 250, 150, 30);
add(tfaddress);
```

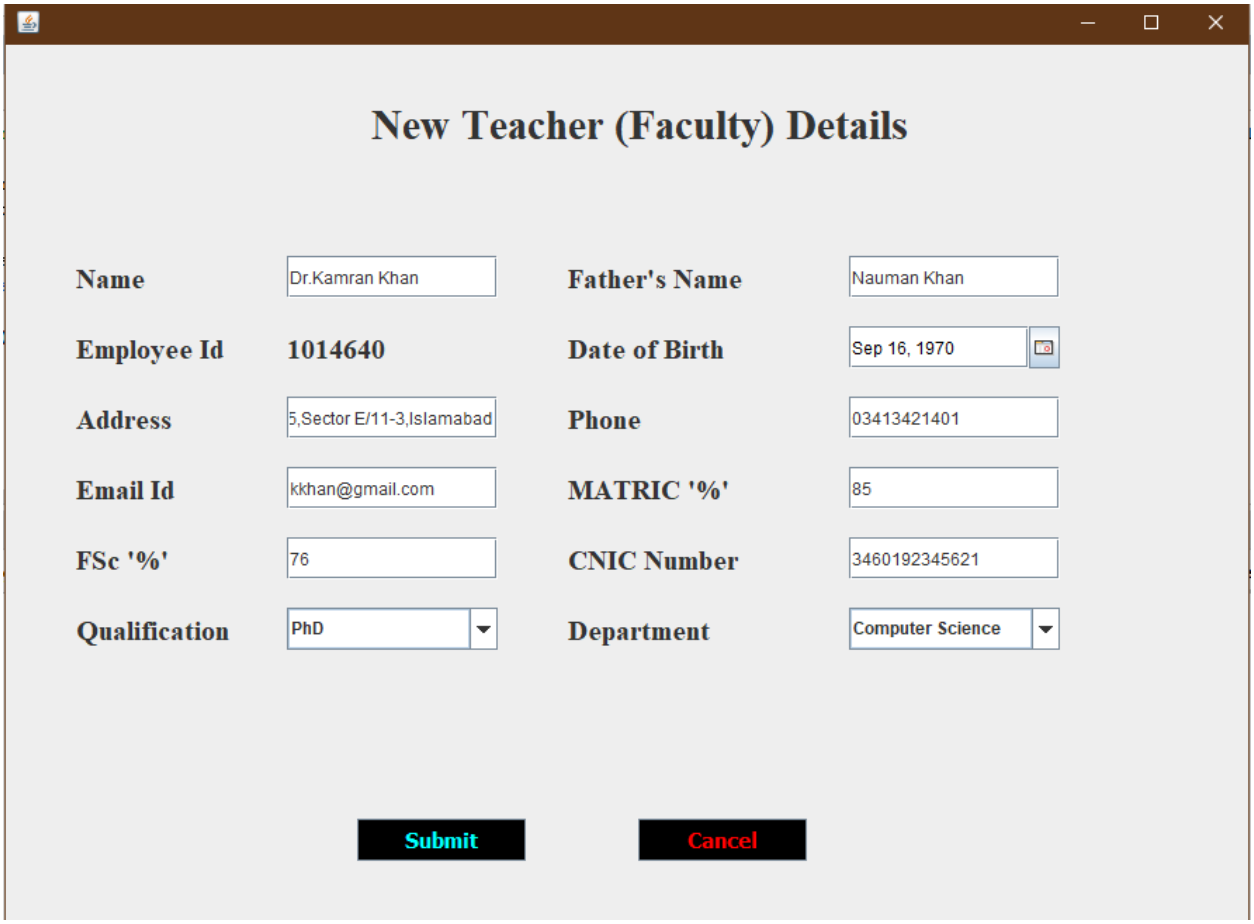
```
JLabel lblphone = new JLabel("Phone");
lblphone.setBounds(400, 250, 200, 30);
lblphone.setFont(new Font("serif", Font.BOLD, 20));
add(lblphone);

tfphone = new JTextField();
tfphone.setBounds(600, 250, 150, 30);
add(tfphone);

JLabel lblemail = new JLabel("Email Id");
lblemail.setBounds(50, 300, 200, 30);
lblemail.setFont(new Font("serif", Font.BOLD, 20));
add(lblemail);

tfemail = new JTextField();
tfemail.setBounds(200, 300, 150, 30);
add(tfemail);

JLabel lblx = new JLabel("MATRIC '%'");
lblx.setBounds(400, 300, 200, 30);
lblx.setFont(new Font("serif", Font.BOLD, 20));
add(lblx);

tfx = new JTextField();
tfx.setBounds(600, 300, 150, 30);
add(tfx);

JLabel lblxii = new JLabel("FSc '%'");
lblxii.setBounds(50, 350, 200, 30);
lblxii.setFont(new Font("serif", Font.BOLD, 20));
add(lblxii);

tfxii = new JTextField();
```

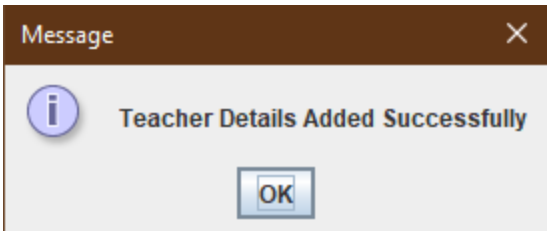
```
        tfxii.setBounds(200, 350, 150, 30);
        add(tfxii);

        JLabel lblaadhar = new JLabel("CNIC Number");
        lblaadhar.setBounds(400, 350, 200, 30);
        lblaadhar.setFont(new Font("serif", Font.BOLD, 20));
        add(lblaadhar);
        tfcnic = new JTextField();
        tfcnic.setBounds(600, 350, 150, 30);
        add(tfcnic);
        JLabel lblcourse = new JLabel("Qualification");
        lblcourse.setBounds(50, 400, 200, 30);
        lblcourse.setFont(new Font("serif", Font.BOLD, 20));
        add(lblcourse);
        String course[] = { "PhD","MS","BS","B.Tech"};
        cbcourse = new JComboBox(course);
        cbcourse.setBounds(200, 400, 150, 30);
        cbcourse.setBackground(Color.WHITE);
        add(cbcourse);
        JLabel lblbranch = new JLabel("Department");
        lblbranch.setBounds(400, 400, 200, 30);
        lblbranch.setFont(new Font("serif", Font.BOLD, 20));
        add(lblbranch);
        String branch[] = {"Software Engineering", "Computer Science", "Electrical Engineering", "Info Security",
"Telecom"};
        cbbranch = new JComboBox(branch);
        cbbranch.setBounds(600, 400, 150, 30);
        cbbranch.setBackground(Color.WHITE);
        add(cbbranch);

        submit = new JButton("Submit");
        submit.setBounds(250, 550, 120, 30);
        submit.setBackground(Color.BLACK);
        submit.setForeground(Color.CYAN);
```

```
        submit.addActionListener(this);
        submit.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(submit);
        cancel = new JButton("Cancel");
        cancel.setBounds(450, 550, 120, 30);
        cancel.setBackground(Color.BLACK);
        cancel.setForeground(Color.RED);
        cancel.addActionListener(this);
        cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(cancel);
        setVisible(true);
    }
    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            String name = tfname.getText();
            String fname = tffname.getText();
            String rollno = labelempId.getText();
            String dob = ((JTextField) dcdob.getDateEditor().getUiComponent()).getText();
            String address = tfaddress.getText();
            String phone = tfphone.getText();
            String email = tfemail.getText();
            String x = tfx.getText();
            String xii = tfxii.getText();
            String cnic = tfcnic.getText();
            String course = (String) cbcourse.getSelectedItem();
            String branch = (String) cbbranch.getSelectedItem();
            try {
                String query = "insert into teacher values('"+name+"', '"+fname+"', '"+rollno+"', '"+dob+"', '"+address+"',
'"+phone+"', '"+email+"', '"+x+"', '"+xii+"', '"+cnic+"', '"+course+"', '"+branch+"')";

                dbConnectivity con = new dbConnectivity();
                con.s.executeUpdate(query);

                JOptionPane.showMessageDialog(null, "Teacher Details Added Successfully");
```

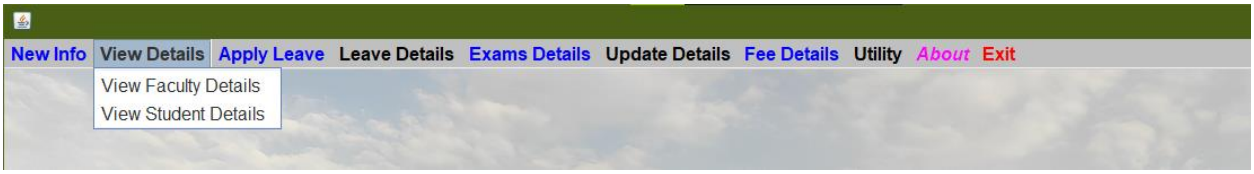
```
            setVisible(false);
        } catch (Exception e) {
            e.printStackTrace();
        }
    } else {
        setVisible(false);
    }
  }
  public static void main(String[] args) {
    new AddTeacher();
  }
}
```

- **OUTPUT (SCREENSHOT) FOR ADD NEW TEACHER WINDOW**





➢ PROGRAM CODE FOR STUDENT DETAILS WINDOW




```
/*
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 */
package college.management.system;


/**
 *
 * @author Muhammad Ahmad Sultan
 */


import javax.swing.*;
import java.awt.*;
import java.sql.*;
import net.proteanit.sql.DbUtils;
import java.awt.event.*;


public class StudentDetails extends JFrame implements ActionListener {


    Choice crollno;
    JTable table;
```
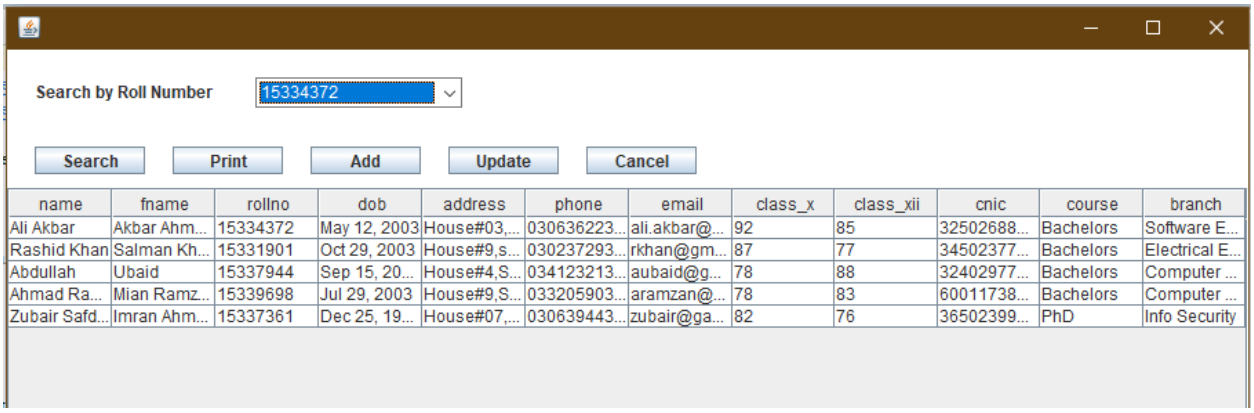

```
JButton search, print, update, add, cancel;
StudentDetails() {

    getContentPane().setBackground(Color.WHITE);
    setLayout(null);

    JLabel heading = new JLabel("Search by Roll Number");
    heading.setBounds(20, 20, 150, 20);
    add(heading);

    crollno = new Choice();
    crollno.setBounds(180, 20, 150, 20);
    add(crollno);

    try {
      dbConnectivity c = new dbConnectivity();
       ResultSet rs = c.s.executeQuery("select * from student");
       while(rs.next()) {
          crollno.add(rs.getString("rollno"));
       }
    } catch (Exception e) {
       e.printStackTrace();
    }

    table = new JTable();

    try {
       dbConnectivity c = new dbConnectivity();
       ResultSet rs = c.s.executeQuery("select * from student");
       table.setModel(DbUtils.resultSetToTableModel(rs));
    } catch (Exception e) {
       e.printStackTrace();
    }
```

```
JScrollPane jsp = new JScrollPane(table);
jsp.setBounds(0, 100, 900, 600);
add(jsp);

search = new JButton("Search");
search.setBounds(20, 70, 80, 20);
search.addActionListener(this);
add(search);

print = new JButton("Print");
print.setBounds(120, 70, 80, 20);
print.addActionListener(this);
add(print);

add = new JButton("Add");
add.setBounds(220, 70, 80, 20);
add.addActionListener(this);
add(add);

update = new JButton("Update");
update.setBounds(320, 70, 80, 20);
update.addActionListener(this);
add(update);

cancel = new JButton("Cancel");
cancel.setBounds(420, 70, 80, 20);
cancel.addActionListener(this);
add(cancel);

setSize(900, 700);
setLocation(300, 100);
setVisible(true);
```

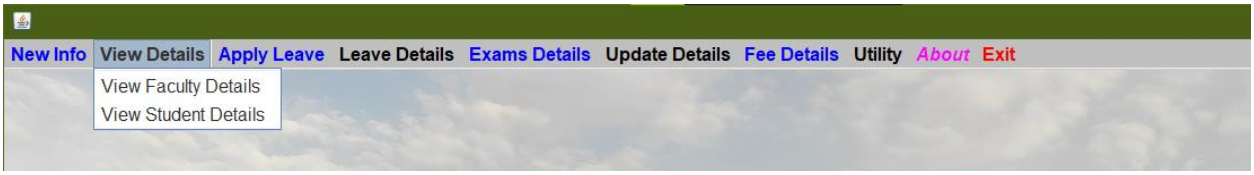
```
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == search) {
            String query = "select * from student where rollno = '"+crollno.getSelectedItem()+"'";
            try {
                dbConnectivity c = new dbConnectivity();
                ResultSet rs = c.s.executeQuery(query);
                table.setModel(DbUtils.resultSetToTableModel(rs));
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == print) {
            try {
                table.print();
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == add) {
            setVisible(false);
            new AddStudent();
        } else if (ae.getSource() == update) {
            setVisible(false);
            new UpdateStudent();
        } else {
            setVisible(false);
        }
    }

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

- **OUTPUT (SCREENSHOT) FOR STUDENT DETAILS WINDOW**



name	fname	rollno	dob	address	phone	email	class_x	class_xii	cnic	course	branch
Ali Akbar	Akbar Ahm...	15334372	May 12, 2003	House#03,...	030636223...	ali.akbar@...	92	85	32502688...	Bachelors	Software E...
Rashid Khan	Salman Kh...	15331901	Oct 29, 2003	House#9,s...	030237293...	rkhan@gm...	87	77	34502377...	Bachelors	Electrical E...
Abdullah	Ubaid	15337944	Sep 15, 20...	House#4,S...	034123213...	aubaid@g...	78	88	32402977...	Bachelors	Computer ...
Ahmad Ra...	Mian Ramz...	15339698	Jul 29, 2003	House#9,S...	033205903...	aramzan@...	78	83	60011738...	Bachelors	Computer ...
Zubair Safd...	Imran Ahm...	15337361	Dec 25, 19...	House#07,...	030639443...	zubair@ga...	82	76	36502399...	PhD	Info Security

- **PROGRAM CODE FOR TEACHER DETAILS WINDOW**




```
/*
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 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;
/**
 * @author Muhammad Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import net.proteanit.sql.DbUtils;
import java.awt.event.*;
public class TeacherDetails extends JFrame implements ActionListener {
    Choice cEmpId;
    JTable table;
    JButton search, print, update, add, cancel;
```
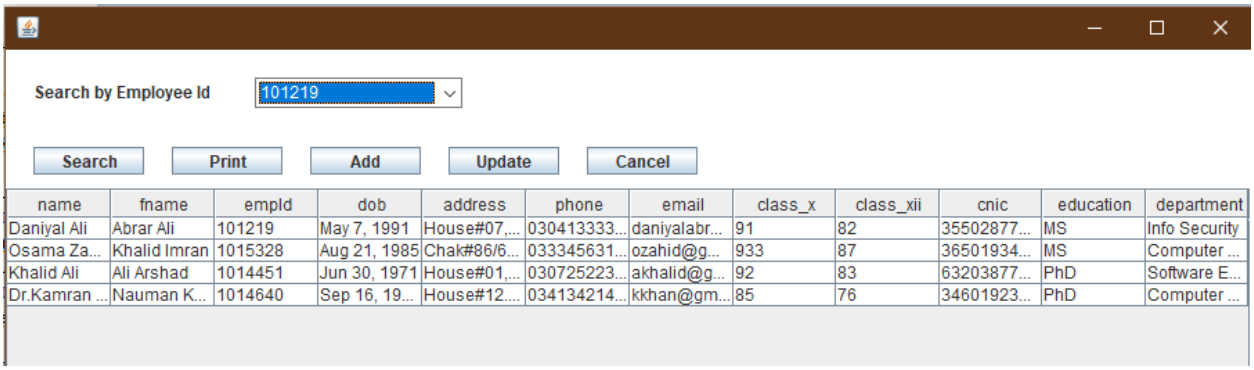

```
TeacherDetails() {
    getContentPane().setBackground(Color.WHITE);
    setLayout(null);
    JLabel heading = new JLabel("Search by Employee Id");
    heading.setBounds(20, 20, 150, 20);
    add(heading);
    cEmpId = new Choice();
    cEmpId.setBounds(180, 20, 150, 20);
    add(cEmpId);
    try {
      dbConnectivity c = new dbConnectivity();
       ResultSet rs = c.s.executeQuery("select * from teacher");
       while(rs.next()) {
          cEmpId.add(rs.getString("empId"));
       }
    } catch (Exception e) {
       e.printStackTrace();
    }
    table = new JTable();
    try {
       dbConnectivity c = new dbConnectivity();
       ResultSet rs = c.s.executeQuery("select * from teacher");
       table.setModel(DbUtils.resultSetToTableModel(rs));
    } catch (Exception e) {
       e.printStackTrace();
    }
    JScrollPane jsp = new JScrollPane(table);
    jsp.setBounds(0, 100, 900, 600);
    add(jsp);
    search = new JButton("Search");
    search.setBounds(20, 70, 80, 20);
    search.addActionListener(this);
    add(search);
```

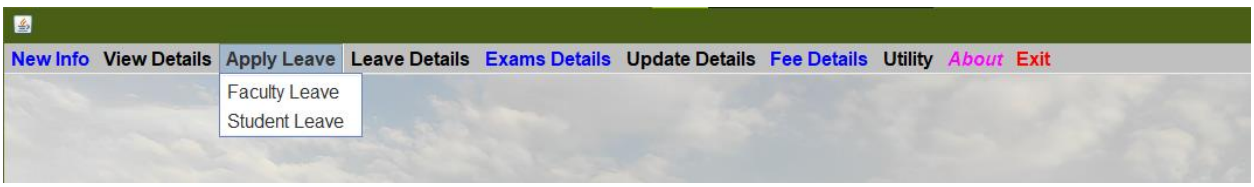
```
    print = new JButton("Print");
    print.setBounds(120, 70, 80, 20);
    print.addActionListener(this);
    add(print);
    add = new JButton("Add");
    add.setBounds(220, 70, 80, 20);
    add.addActionListener(this);
    add(add);
    update = new JButton("Update");
    update.setBounds(320, 70, 80, 20);
    update.addActionListener(this);
    add(update);
    cancel = new JButton("Cancel");
    cancel.setBounds(420, 70, 80, 20);
    cancel.addActionListener(this);
    add(cancel);
    setSize(900, 700);
    setLocation(300, 100);
    setVisible(true);
}
public void actionPerformed(ActionEvent ae) {
    if (ae.getSource() == search) {
        String query = "select * from teacher where rollno = '"+cEmpId.getSelectedItem()+"'";
        try {
            dbConnectivity c = new dbConnectivity();
            ResultSet rs = c.s.executeQuery(query);
            table.setModel(DbUtils.resultSetToTableModel(rs));
        } catch (Exception e) {
            e.printStackTrace();
        }
    } else if (ae.getSource() == print) {
        try {
            table.print();
```

```
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == add) {
            setVisible(false);
            new AddTeacher();
        } else if (ae.getSource() == update) {
            setVisible(false);
            new UpdateTeacher();
        } else {
            setVisible(false);
        }
    }
    public static void main(String[] args) {
        new TeacherDetails();
    }
}
```

- ## OUTPUT (SCREENSHOT) FOR TEACHER DETAILS WINDOW



➢ PROGRAM CODE FOR STUDENT LEAVE WINDOW

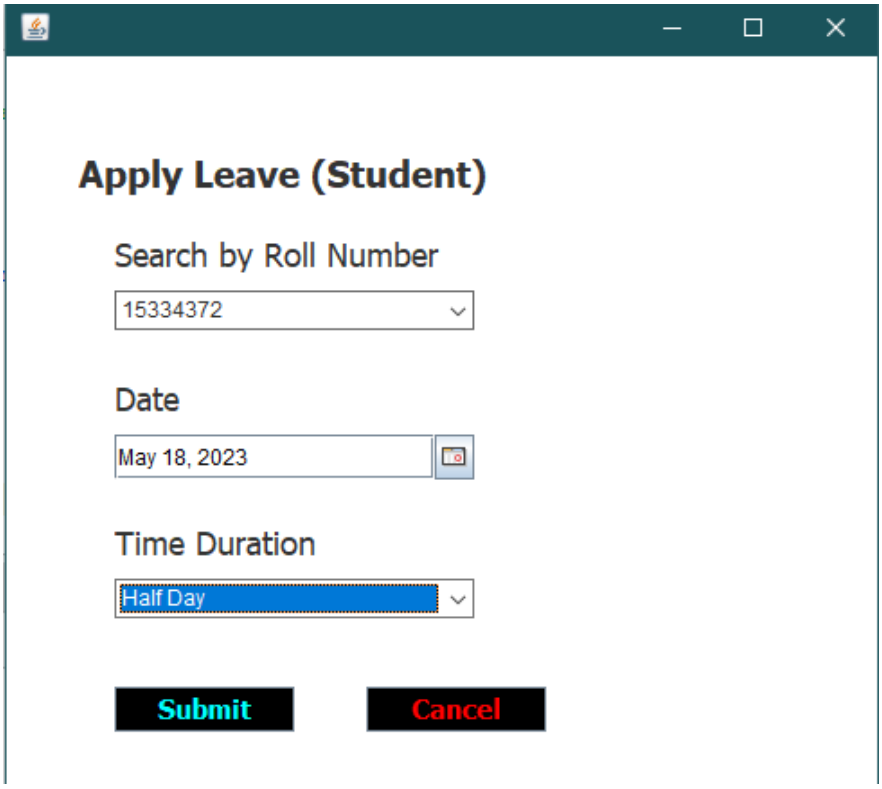


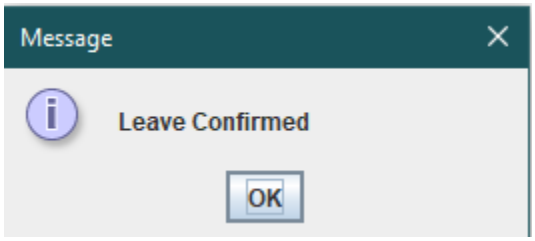
```
package college.management.system;
/**
 *
 * @author Muhammad Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import com.toedter.calendar.JDateChooser;
import java.awt.event.*;

public class StudentLeave extends JFrame implements ActionListener {
    Choice rollno_, time_;
    JDateChooser dcdate;
    JButton submit, cancel;
    StudentLeave() {
        setSize(500, 550);
        setLocation(550, 100);
        setLayout(null);
        getContentPane().setBackground(Color.WHITE);
        JLabel heading = new JLabel("Apply Leave (Student)");
        heading.setBounds(40, 50, 300, 30);
        heading.setFont(new Font("Tahoma", Font.BOLD, 20));
        add(heading);
        JLabel lblrollno = new JLabel("Search by Roll Number");
        lblrollno.setBounds(60, 100, 200, 20);
        lblrollno.setFont(new Font("Tahoma", Font.PLAIN, 18));
        add(lblrollno);
        rollno_ = new Choice();
        rollno_.setBounds(60, 130, 200, 20);
        add(rollno_);
        try {
            dbConnectivity c = new dbConnectivity();
```

```
    ResultSet rs = c.s.executeQuery("select * from student");
    while(rs.next()) {
        rollno_.add(rs.getString("rollno"));
    }
} catch (Exception e) {
    e.printStackTrace();
}
JLabel lbldate = new JLabel("Date");
lbldate.setBounds(60, 180, 200, 20);
lbldate.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(lbldate);
dcdate = new JDateChooser();
dcdate.setBounds(60, 210, 200, 25);
add(dcdate);
JLabel lbltime = new JLabel("Time Duration");
lbltime.setBounds(60, 260, 200, 20);
lbltime.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(lbltime);
time_ = new Choice();
time_.setBounds(60, 290, 200, 20);
time_.add("Full Day");
time_.add("Half Day");
add(time_);
submit = new JButton("Submit");
submit.setBounds(60, 350, 100, 25);
submit.setBackground(Color.BLACK);
submit.setForeground(Color.CYAN);
submit.addActionListener(this);
submit.setFont(new Font("Tahoma", Font.BOLD, 15));
add(submit);
cancel = new JButton("Cancel");
cancel.setBounds(200, 350, 100, 25);
cancel.setBackground(Color.BLACK);
```

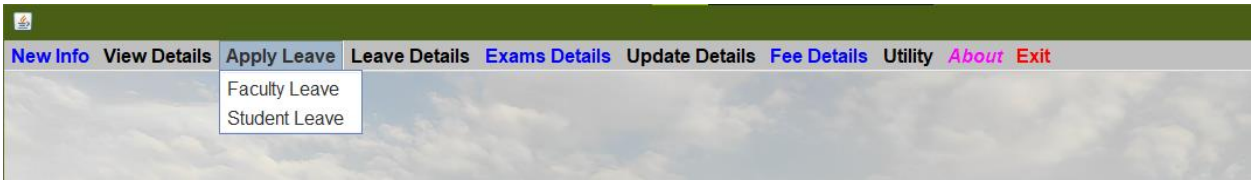
```
        cancel.setForeground(Color.RED);
        cancel.addActionListener(this);
        cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(cancel);
        setVisible(true);
    }
    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            String rollno = rollno_.getSelectedItem();
            String date = ((JTextField) dcdate.getDateEditor().getUiComponent()).getText();
            String duration = time_.getSelectedItem();
            String query = "insert into studentleave values('"+rollno+"', '"+date+"', '"+duration+"')";

            try {
              dbConnectivity c = new dbConnectivity();
               c.s.executeUpdate(query);
               JOptionPane.showMessageDialog(null, "Leave Confirmed");
               setVisible(false);
            } catch (Exception e) {
               e.printStackTrace();
            }
        } else {
            setVisible(false);
        }
    }
    public static void main(String[] args) {
        new StudentLeave();
    }
}
```

- ## OUTPUT (SCREENSHOT) FOR STUDENT LEAVE WINDOW





➢ PROGRAM CODE FOR TEACHER LEAVE WINDOW




```
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 */
```
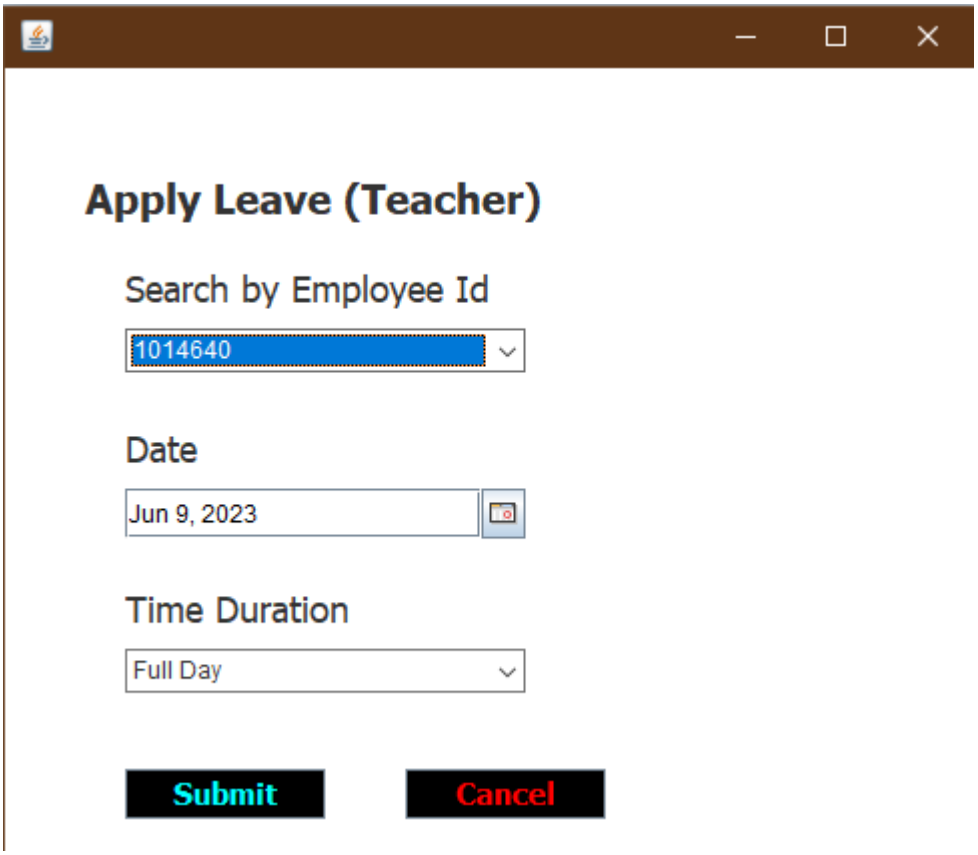

```
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */


import javax.swing.*;
import java.awt.*;
import java.sql.*;
import com.toedter.calendar.JDateChooser;
import java.awt.event.*;

public class TeacherLeave extends JFrame implements ActionListener {

    Choice EmpId_, time_;
    JDateChooser dcdate;
    JButton submit, cancel;

    TeacherLeave() {

        setSize(500, 550);
        setLocation(550, 100);
        setLayout(null);

        getContentPane().setBackground(Color.WHITE);

        JLabel heading = new JLabel("Apply Leave (Teacher)");
        heading.setBounds(40, 50, 300, 30);
        heading.setFont(new Font("Tahoma", Font.BOLD, 20));
        add(heading);
```

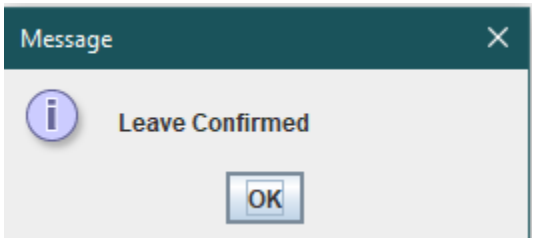
```
JLabel lblrollno = new JLabel("Search by Employee Id");
lblrollno.setBounds(60, 100, 200, 20);
lblrollno.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(lblrollno);

EmpId_ = new Choice();
EmpId_.setBounds(60, 130, 200, 20);
add(EmpId_);

try {
  dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from teacher");
   while(rs.next()) {
      EmpId_.add(rs.getString("empId"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

JLabel lbldate = new JLabel("Date");
lbldate.setBounds(60, 180, 200, 20);
lbldate.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(lbldate);

dcdate = new JDateChooser();
dcdate.setBounds(60, 210, 200, 25);
add(dcdate);
JLabel lbltime = new JLabel("Time Duration");
lbltime.setBounds(60, 260, 200, 20);
lbltime.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(lbltime);
time_ = new Choice();
time_.setBounds(60, 290, 200, 20);
```

```
    time_.add("Full Day");
    time_.add("Half Day");
    add(time_);
    submit = new JButton("Submit");
    submit.setBounds(60, 350, 100, 25);
    submit.setBackground(Color.BLACK);
    submit.setForeground(Color.CYAN);
    submit.addActionListener(this);
    submit.setFont(new Font("Tahoma", Font.BOLD, 15));
    add(submit);
    cancel = new JButton("Cancel");
    cancel.setBounds(200, 350, 100, 25);
    cancel.setBackground(Color.BLACK);
    cancel.setForeground(Color.RED);
    cancel.addActionListener(this);
    cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
    add(cancel);
    setVisible(true);
}
public void actionPerformed(ActionEvent ae) {
    if (ae.getSource() == submit) {
        String rollno = EmpId_.getSelectedItem();
        String date = ((JTextField) dcdate.getDateEditor().getUiComponent()).getText();
        String duration = time_.getSelectedItem();
        String query = "insert into teacherleave values('"+rollno+"', '"+date+"', '"+duration+"')";

        try {
            dbConnectivity c = new dbConnectivity();
            c.s.executeUpdate(query);
            JOptionPane.showMessageDialog(null, "Leave Confirmed");
            setVisible(false);
        } catch (Exception e) {
            e.printStackTrace();
```

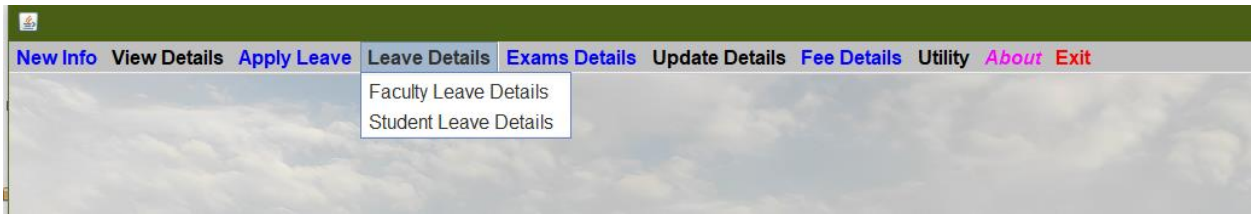
```
        }
      } else {
        setVisible(false);
      }
    }
    public static void main(String[] args) {
      new TeacherLeave();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR TEACHER LEAVE WINDOW**





➢ PROGRAM CODE FOR STUDENT LEAVE DETAILS WINDOW



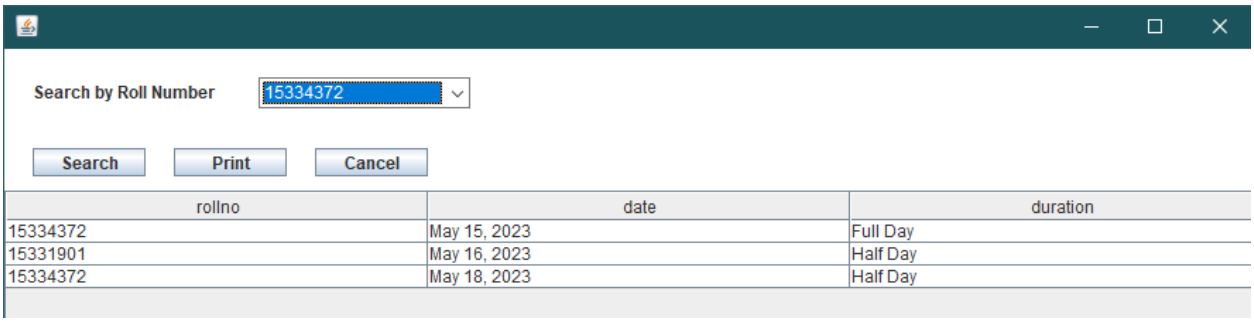

```
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.sql.*;
import net.proteanit.sql.DbUtils;
import java.awt.event.*;

public class StudentLeaveDetails extends JFrame implements ActionListener {

    Choice rollno_;
    JTable table;
    JButton search, print, update, add, cancel;

    StudentLeaveDetails() {

        getContentPane().setBackground(Color.WHITE);
        setLayout(null);

        JLabel heading = new JLabel("Search by Roll Number");
```

```
heading.setBounds(20, 20, 150, 20);
add(heading);

rollno_ = new Choice();
rollno_.setBounds(180, 20, 150, 20);
add(rollno_);

try {
   dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from student");
   while(rs.next()) {
      rollno_.add(rs.getString("rollno"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

table = new JTable();

try {
   dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from studentleave");
   table.setModel(DbUtils.resultSetToTableModel(rs));
} catch (Exception e) {
   e.printStackTrace();
}

JScrollPane jsp = new JScrollPane(table);
jsp.setBounds(0, 100, 900, 600);
add(jsp);

search = new JButton("Search");
search.setBounds(20, 70, 80, 20);
```

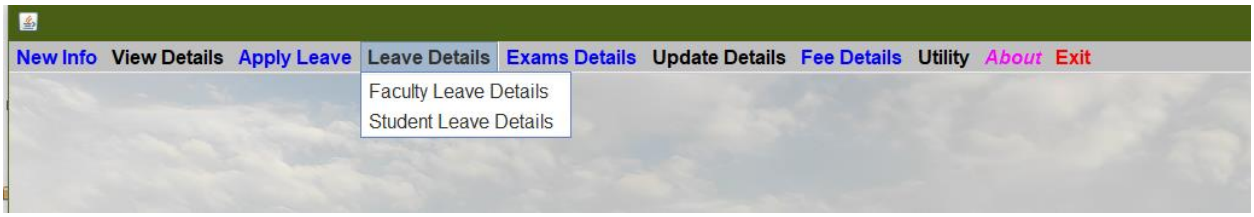
```
    search.addActionListener(this);
    add(search);

    print = new JButton("Print");
    print.setBounds(120, 70, 80, 20);
    print.addActionListener(this);
    add(print);

    cancel = new JButton("Cancel");
    cancel.setBounds(220, 70, 80, 20);
    cancel.addActionListener(this);
    add(cancel);

    setSize(900, 700);
    setLocation(300, 100);
    setVisible(true);
}

public void actionPerformed(ActionEvent ae) {
    if (ae.getSource() == search) {
        String query = "select * from studentleave where rollno = '"+rollno_.getSelectedItem()+"'";
        try {
            dbConnectivity c = new dbConnectivity();
            ResultSet rs = c.s.executeQuery(query);
            table.setModel(DbUtils.resultSetToTableModel(rs));
        } catch (Exception e) {
            e.printStackTrace();
        }
    } else if (ae.getSource() == print) {
        try {
            table.print();
        } catch (Exception e) {
            e.printStackTrace();
```

```
            }
        } else {
            setVisible(false);
        }
    }

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

- **OUTPUT (SCREENSHOT) FOR STUDENT LEAVE DETAILS WINDOW**



- **PROGRAM CODE FOR TEACHER LEAVE DETAILS WINDOW**



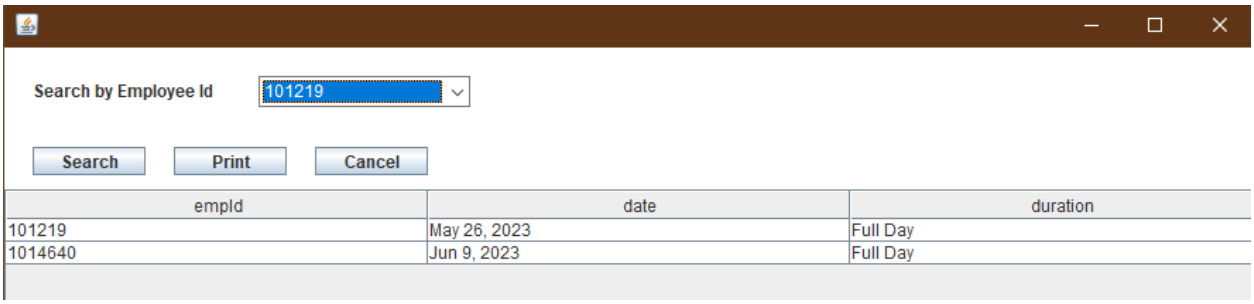

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;
```

```
/**
 *
 * @author Muhammad Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.sql.*;
import net.proteanit.sql.DbUtils;
import java.awt.event.*;

public class TeacherLeaveDetails extends JFrame implements ActionListener {

    Choice EmpId_;
    JTable table;
    JButton search, print, cancel;

    TeacherLeaveDetails() {

        getContentPane().setBackground(Color.WHITE);
        setLayout(null);

        JLabel heading = new JLabel("Search by Employee Id");
        heading.setBounds(20, 20, 150, 20);
        add(heading);

        EmpId_ = new Choice();
        EmpId_.setBounds(180, 20, 150, 20);
        add(EmpId_);

        try {
            dbConnectivity c = new dbConnectivity();
            ResultSet rs = c.s.executeQuery("select * from teacher");
```

```
    while(rs.next()) {
        EmpId_.add(rs.getString("empId"));
    }
} catch (Exception e) {
    e.printStackTrace();
}

table = new JTable();

try {
   dbConnectivity c = new dbConnectivity();
    ResultSet rs = c.s.executeQuery("select * from teacherleave");
    table.setModel(DbUtils.resultSetToTableModel(rs));
} catch (Exception e) {
    e.printStackTrace();
}

JScrollPane jsp = new JScrollPane(table);
jsp.setBounds(0, 100, 900, 600);
add(jsp);

search = new JButton("Search");
search.setBounds(20, 70, 80, 20);
search.addActionListener(this);
add(search);

print = new JButton("Print");
print.setBounds(120, 70, 80, 20);
print.addActionListener(this);
add(print);

cancel = new JButton("Cancel");
cancel.setBounds(220, 70, 80, 20);
```

```
        cancel.addActionListener(this);
        add(cancel);

        setSize(900, 700);
        setLocation(300, 100);
        setVisible(true);
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == search) {
            String query = "select * from teacherleave where rollno = '"+EmpId_.getSelectedItem()+"'";
            try {
              dbConnectivity c = new dbConnectivity();
                ResultSet rs = c.s.executeQuery(query);
                table.setModel(DbUtils.resultSetToTableModel(rs));
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == print) {
            try {
                table.print();
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else {
            setVisible(false);
        }
    }

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

- ## OUTPUT (SCREENSHOT) FOR TEACHER LEAVE DETAILS WINDOW



➢ PROGRAM CODE FOR EXAMS RESULT WINDOW

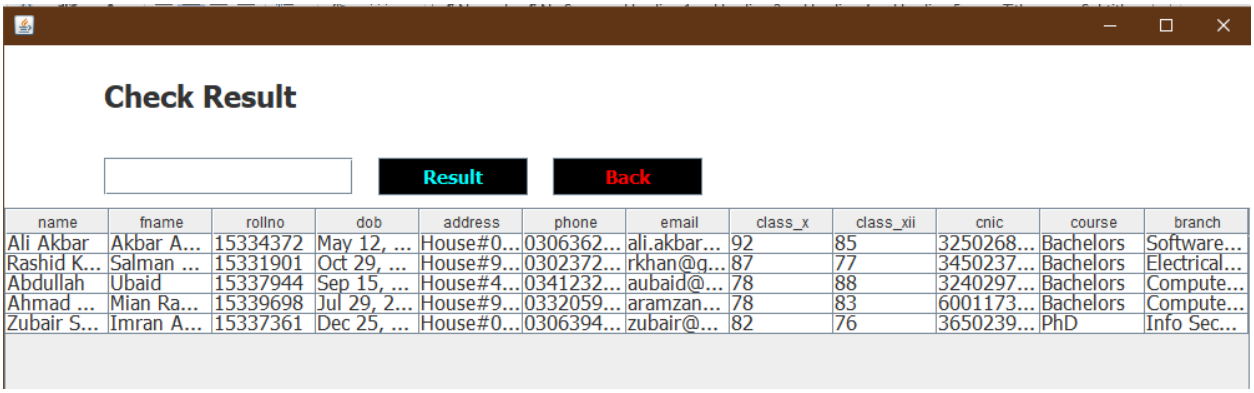
```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;


/**
 *
 * @author Muhammad Ahmad Sultan
 */


import java.awt.*;
import javax.swing.*;
import java.sql.*;
import java.awt.event.*;


public class Marks extends JFrame implements ActionListener {


    String roll_no;
```

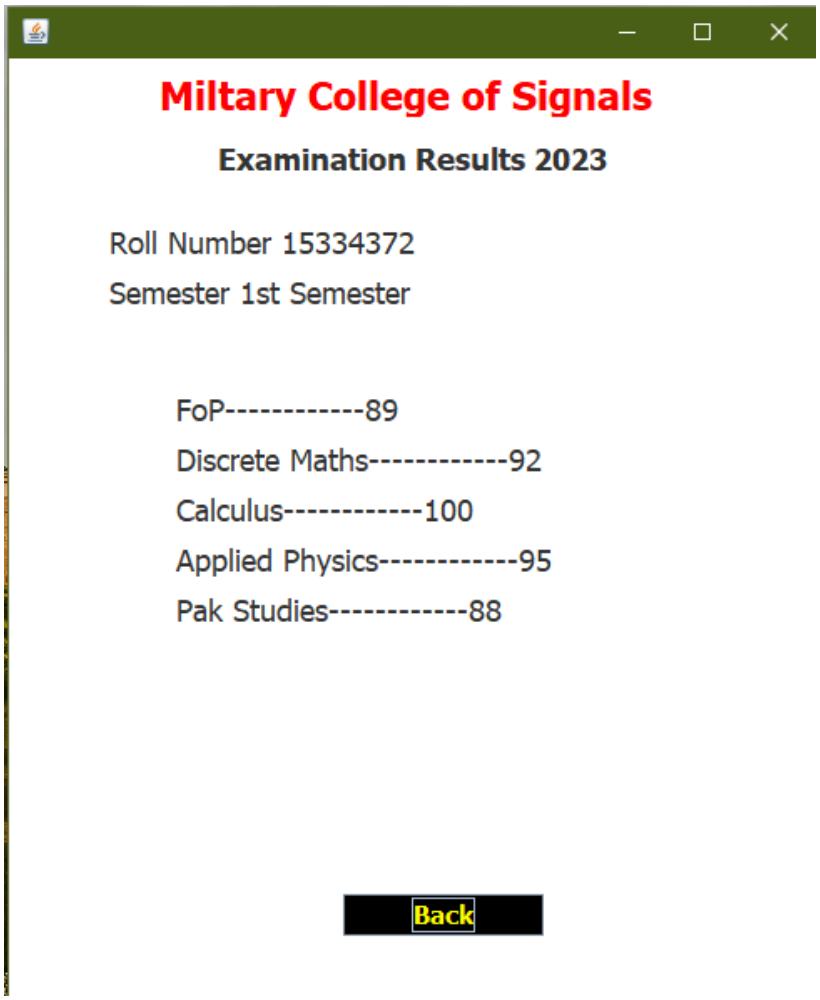
```
JButton cancel;

Marks(String rollno) {
    this.roll_no = rollno;

    setSize(500, 600);
    setLocation(500, 100);
    setLayout(null);

    getContentPane().setBackground(Color.WHITE);

    JLabel heading = new JLabel("Miltary College of Signals");
    heading.setBounds(90, 10, 500, 25);
    heading.setFont(new Font("Tahoma", Font.BOLD, 23));
    heading.setForeground(Color.RED);
    add(heading);

    JLabel subheading = new JLabel(" Examination Results 2023");
    subheading.setBounds(120, 50, 500, 20);
    subheading.setFont(new Font("Tahoma", Font.BOLD, 18));
    add(subheading);

    JLabel lblrollno = new JLabel("Roll Number " + rollno);
    lblrollno.setBounds(60, 100, 500, 20);
    lblrollno.setFont(new Font("Tahoma", Font.PLAIN, 18));
    add(lblrollno);

    JLabel lblsemester = new JLabel();
    lblsemester.setBounds(60, 130, 500, 20);
    lblsemester.setFont(new Font("Tahoma", Font.PLAIN, 18));
    add(lblsemester);

    JLabel sub1 = new JLabel();
```

```
sub1.setBounds(100, 200, 500, 20);
sub1.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(sub1);

JLabel sub2 = new JLabel();
sub2.setBounds(100, 230, 500, 20);
sub2.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(sub2);

JLabel sub3 = new JLabel();
sub3.setBounds(100, 260, 500, 20);
sub3.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(sub3);

JLabel sub4 = new JLabel();
sub4.setBounds(100, 290, 500, 20);
sub4.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(sub4);

JLabel sub5 = new JLabel();
sub5.setBounds(100, 320, 500, 20);
sub5.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(sub5);

try {
   dbConnectivity c = new dbConnectivity();

   ResultSet rs1 = c.s.executeQuery("select * from subject where rollno = '"+rollno+"'");
   while(rs1.next()) {
      sub1.setText(rs1.getString("subject1"));
      sub2.setText(rs1.getString("subject2"));
      sub3.setText(rs1.getString("subject3"));
      sub4.setText(rs1.getString("subject4"));
```

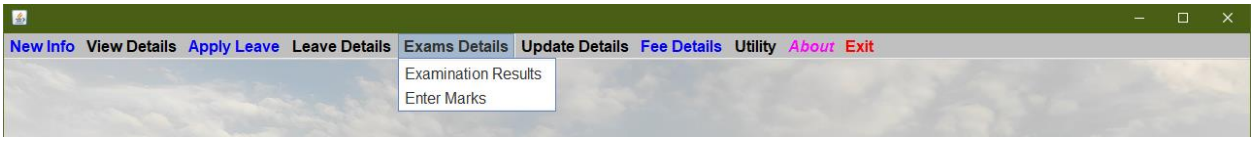
```
            sub5.setText(rs1.getString("subject5"));
        }

        ResultSet rs2 = c.s.executeQuery("select * from marks where rollno = '"+rollno+"'");
        while(rs2.next()) {
            sub1.setText(sub1.getText() + "----------" + rs2.getString("marks1"));
            sub2.setText(sub2.getText() + "----------" + rs2.getString("marks2"));
            sub3.setText(sub3.getText() + "----------" + rs2.getString("marks3"));
            sub4.setText(sub4.getText() + "----------" + rs2.getString("marks4"));
            sub5.setText(sub5.getText() + "----------" + rs2.getString("marks5"));
            lblsemester.setText("Semester " + rs2.getString("semester"));
        }
      } catch (Exception e) {
        e.printStackTrace();
      }
      cancel = new JButton("Back");
      cancel.setBounds(200, 500, 120, 25);
      cancel.setBackground(Color.BLACK);
      cancel.setForeground(Color.YELLOW);
      cancel.addActionListener(this);
      cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
      add(cancel);

      setVisible(true);
    }
    public void actionPerformed(ActionEvent ae) {
      setVisible(false);
    }
    public static void main(String[] args) {
      new Marks("");
    }
}
```

- **OUTPUT (SCREENSHOT) FOR EXAMINATION DETAILS WINDOW**





➢ PROGRAM CODE FOR ENTER MARKS WINDOW




```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */


import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

public class EnterMarks extends JFrame implements ActionListener {

    Choice rollno_;
    JComboBox cbsemester;
    JTextField sub1_, sub2_,sub3_,sub4_,sub5_,marks1_,marks2_,marks3_,marks4_,marks5_;
    JButton cancel, submit;

    EnterMarks() {

        setSize(1000, 500);
        setLocation(300, 150);
```

```
setLayout(null);

getContentPane().setBackground(Color.WHITE);

ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/exam.png"));
Image i2 = i1.getImage().getScaledInstance(450, 450, Image.SCALE_DEFAULT);
ImageIcon i3 = new ImageIcon(i2);
JLabel image = new JLabel(i3);
image.setBounds(500, 40, 400, 300);
add(image);

JLabel heading = new JLabel("Enter Marks of Student");
heading.setBounds(50, 0, 500, 50);
heading.setFont(new Font("Tahoma", Font.BOLD, 20));
add(heading);

JLabel lblrollnumber = new JLabel("Select Roll Number");
lblrollnumber.setBounds(50, 70, 150, 20);
add(lblrollnumber);

rollno_ = new Choice();
rollno_.setBounds(200, 70, 150, 20);
add(rollno_);

try {
   dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from student");
   while(rs.next()) {
      rollno_.add(rs.getString("rollno"));
   }
} catch (Exception e) {
   e.printStackTrace();
}
```

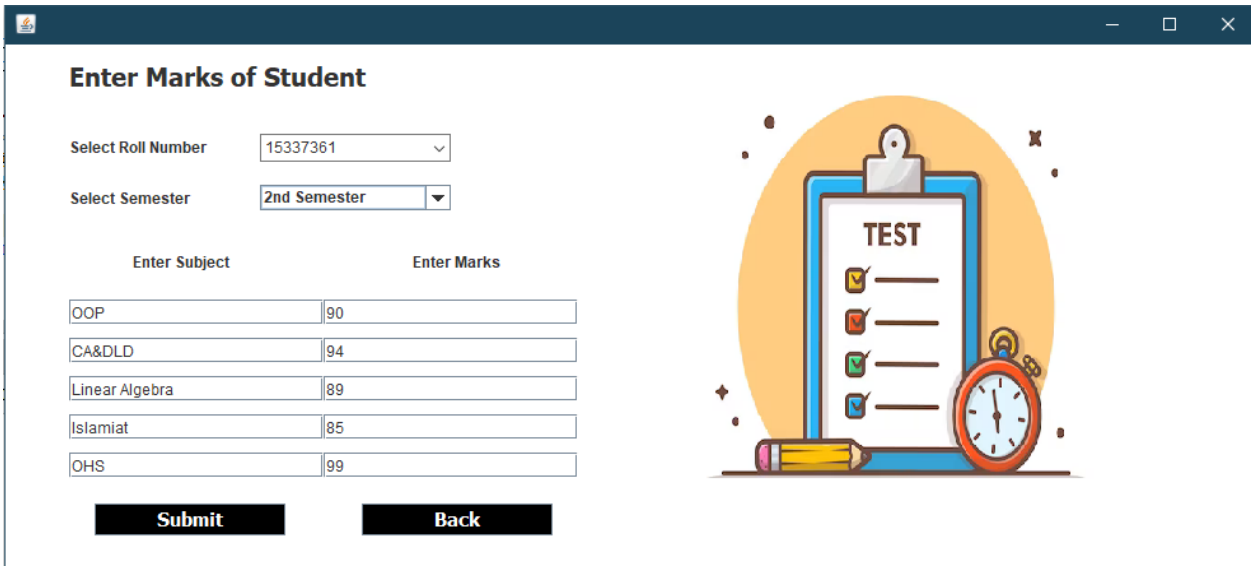
```
        JLabel lblsemester = new JLabel("Select Semester");
        lblsemester.setBounds(50, 110, 150, 20);
        add(lblsemester);

        String semester[] = {"1st Semester", "2nd Semester", "3rd Semester", "4th Semester", "5th Semester", "6th Semester", "7th Semester", "8th Semester" };
        cbsemester = new JComboBox(semester);
        cbsemester.setBounds(200, 110, 150, 20);
        cbsemester.setBackground(Color.WHITE);
        add(cbsemester);

        JLabel lblentersubject = new JLabel("Enter Subject");
        lblentersubject.setBounds(100, 150, 200, 40);
        add(lblentersubject);

        JLabel lblentermarks = new JLabel("Enter Marks");
        lblentermarks.setBounds(320, 150, 200, 40);
        add(lblentermarks);

        sub1_ = new JTextField();
        sub1_.setBounds(50, 200, 200, 20);
        add(sub1_);

        sub2_ = new JTextField();
        sub2_.setBounds(50, 230, 200, 20);
        add(sub2_);

        sub3_ = new JTextField();
        sub3_.setBounds(50, 260, 200, 20);
        add(sub3_);

        sub4_ = new JTextField();
        sub4_.setBounds(50, 290, 200, 20);
```

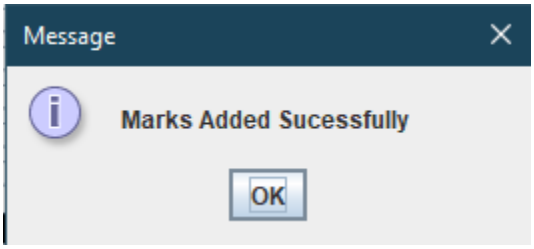
```
add(sub4_);

sub5_ = new JTextField();
sub5_.setBounds(50, 320, 200, 20);
add(sub5_);

marks1_ = new JTextField();
marks1_.setBounds(250, 200, 200, 20);
add(marks1_);

marks2_ = new JTextField();
marks2_.setBounds(250, 230, 200, 20);
add(marks2_);

marks3_ = new JTextField();
marks3_.setBounds(250, 260, 200, 20);
add(marks3_);

marks4_ = new JTextField();
marks4_.setBounds(250, 290, 200, 20);
add(marks4_);

marks5_ = new JTextField();
marks5_.setBounds(250, 320, 200, 20);
add(marks5_);

submit = new JButton("Submit");
submit.setBounds(70, 360, 150, 25);
submit.setBackground(Color.BLACK);
submit.setForeground(Color.WHITE);
submit.addActionListener(this);
submit.setFont(new Font("Tahoma", Font.BOLD, 15));
add(submit);
```

```
        cancel = new JButton("Back");
        cancel.setBounds(280, 360, 150, 25);
        cancel.setBackground(Color.BLACK);
        cancel.setForeground(Color.WHITE);
        cancel.addActionListener(this);
        cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(cancel);

        setVisible(true);
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            try {
                dbConnectivity c = new dbConnectivity();

                String query1 = "insert into subject values('"+rollno_.getSelectedItem()+"',
'"+cbsemester.getSelectedItem()+"', '"+sub1_.getText()+"', '"+sub2_.getText()+"', '"+sub3_.getText()+"',
'"+sub4_.getText()+"', '"+sub5_.getText()+"')";
                String query2 = "insert into marks values('"+rollno_.getSelectedItem()+"',
'"+cbsemester.getSelectedItem()+"', '"+marks1_.getText()+"', '"+marks2_.getText()+"', '"+marks3_.getText()+"',
'"+marks4_.getText()+"', '"+marks5_.getText()+"')";

                c.s.executeUpdate(query1);
                c.s.executeUpdate(query2);

                JOptionPane.showMessageDialog(null, "Marks Added Sucessfully");
                setVisible(false);
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else {
            setVisible(false);
```

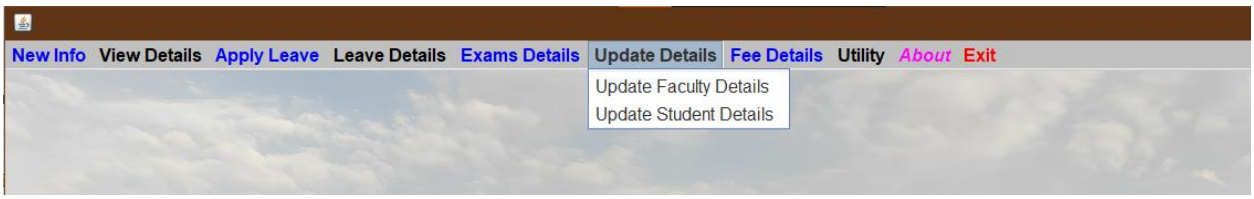
```
    }
  }
  public static void main(String[] args) {
    new EnterMarks();
  }
}
```

- ## OUTPUT (SCREENSHOT) FOR ENTER MARKS WINDOW





➢ PROGRAM CODE FOR UPDATE STUDENT DETAILS WINDOW



```
package college.management.system;
/**
 *
 * @author Muhammad Ahmad Sultan
 */
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.sql.*;

public class UpdateStudent extends JFrame implements ActionListener{

    JTextField tfcourse, tfaddress, tfphone, tfemail, tfbranch;
    JLabel labelrollno;
    JButton submit, cancel;
    Choice crollno;

    UpdateStudent() {

        setSize(900, 650);
        setLocation(350, 50);

        setLayout(null);

        JLabel heading = new JLabel("Update Student Details");
        heading.setBounds(50, 10, 500, 50);
        heading.setFont(new Font("Tahoma", Font.ITALIC, 35));
        add(heading);

        JLabel lblrollnumber = new JLabel("Select Roll Number");
        lblrollnumber.setBounds(50, 100, 200, 20);
        lblrollnumber.setFont(new Font("serif", Font.PLAIN, 20));
```

```
add(lblrollnumber);

crollno = new Choice();
crollno.setBounds(250, 100, 200, 20);
add(crollno);

try {
   dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from student");
   while(rs.next()) {
      crollno.add(rs.getString("rollno"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

JLabel lblname = new JLabel("Name");
lblname.setBounds(50, 150, 100, 30);
lblname.setFont(new Font("serif", Font.BOLD, 20));
add(lblname);

JLabel labelname = new JLabel();
labelname.setBounds(200, 150, 150, 30);
labelname.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelname);

JLabel lblfname = new JLabel("Father's Name");
lblfname.setBounds(400, 150, 200, 30);
lblfname.setFont(new Font("serif", Font.BOLD, 20));
add(lblfname);

JLabel labelfname = new JLabel();
labelfname.setBounds(600, 150, 150, 30);
```

```
labelfname.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelfname);

JLabel lblrollno = new JLabel("Roll Number");
lblrollno.setBounds(50, 200, 200, 30);
lblrollno.setFont(new Font("serif", Font.BOLD, 20));
add(lblrollno);

labelrollno = new JLabel();
labelrollno.setBounds(200, 200, 200, 30);
labelrollno.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelrollno);

JLabel lbldob = new JLabel("Date of Birth");
lbldob.setBounds(400, 200, 200, 30);
lbldob.setFont(new Font("serif", Font.BOLD, 20));
add(lbldob);

JLabel labeldob = new JLabel();
labeldob.setBounds(600, 200, 150, 30);
labeldob.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labeldob);

JLabel lbladdress = new JLabel("Address");
lbladdress.setBounds(50, 250, 200, 30);
lbladdress.setFont(new Font("serif", Font.BOLD, 20));
add(lbladdress);

tfaddress = new JTextField();
tfaddress.setBounds(200, 250, 150, 30);
add(tfaddress);

JLabel lblphone = new JLabel("Phone");
```

```
lblphone.setBounds(400, 250, 200, 30);
lblphone.setFont(new Font("serif", Font.BOLD, 20));
add(lblphone);

tfphone = new JTextField();
tfphone.setBounds(600, 250, 150, 30);
add(tfphone);

JLabel lblemail = new JLabel("Email Id");
lblemail.setBounds(50, 300, 200, 30);
lblemail.setFont(new Font("serif", Font.BOLD, 20));
add(lblemail);

tfemail = new JTextField();
tfemail.setBounds(200, 300, 150, 30);
add(tfemail);

JLabel lblx = new JLabel("MATRIC '%'");
lblx.setBounds(400, 300, 200, 30);
lblx.setFont(new Font("serif", Font.BOLD, 20));
add(lblx);

JLabel labelx = new JLabel();
labelx.setBounds(600, 300, 150, 30);
labelx.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelx);

JLabel lblxii = new JLabel("FSc '%'");
lblxii.setBounds(50, 350, 200, 30);
lblxii.setFont(new Font("serif", Font.BOLD, 20));
add(lblxii);

JLabel labelxii = new JLabel();
```

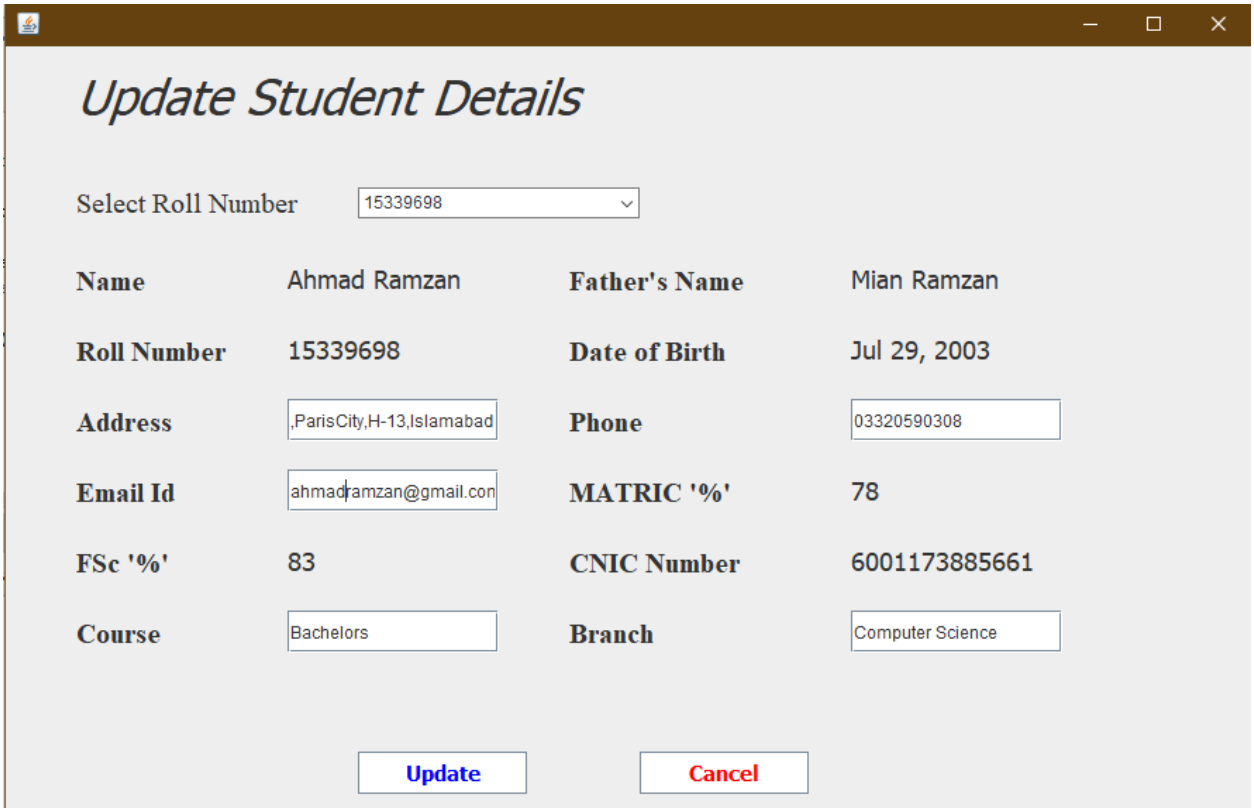
```
labelxii.setBounds(200, 350, 150, 30);
labelxii.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelxii);

JLabel lblcnic = new JLabel("CNIC Number");
lblcnic.setBounds(400, 350, 200, 30);
lblcnic.setFont(new Font("serif", Font.BOLD, 20));
add(lblcnic);

JLabel labelcnic = new JLabel();
labelcnic.setBounds(600, 350, 150, 30);
labelcnic.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelcnic);

JLabel lblcourse = new JLabel("Course");
lblcourse.setBounds(50, 400, 200, 30);
lblcourse.setFont(new Font("serif", Font.BOLD, 20));
add(lblcourse);

tfcourse = new JTextField();
tfcourse.setBounds(200, 400, 150, 30);
add(tfcourse);

JLabel lblbranch = new JLabel("Branch");
lblbranch.setBounds(400, 400, 200, 30);
lblbranch.setFont(new Font("serif", Font.BOLD, 20));
add(lblbranch);

tfbranch = new JTextField();
tfbranch.setBounds(600, 400, 150, 30);
add(tfbranch);

try {
```

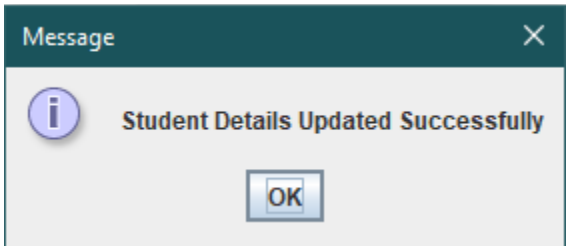
```
 dbConnectivity c = new dbConnectivity();
  String query = "select * from student where rollno='"+crollno.getSelectedItem()+"'";
  ResultSet rs = c.s.executeQuery(query);
  while(rs.next()) {
     labelname.setText(rs.getString("name"));
     labelfname.setText(rs.getString("fname"));
     labeldob.setText(rs.getString("dob"));
     tfaddress.setText(rs.getString("address"));
     tfphone.setText(rs.getString("phone"));
     tfemail.setText(rs.getString("email"));
     labelx.setText(rs.getString("class_x"));
     labelxii.setText(rs.getString("class_xii"));
     labelcnic.setText(rs.getString("cnic"));
     labelrollno.setText(rs.getString("rollno"));
     tfcourse.setText(rs.getString("course"));
     tfbranch.setText(rs.getString("branch"));
  }
} catch (Exception e) {
  e.printStackTrace();
}

crollno.addItemListener(new ItemListener() {
  public void itemStateChanged(ItemEvent ie) {
     try {
       dbConnectivity c = new dbConnectivity();
        String query = "select * from student where rollno='"+crollno.getSelectedItem()+"'";
        ResultSet rs = c.s.executeQuery(query);
        while(rs.next()) {
           labelname.setText(rs.getString("name"));
           labelfname.setText(rs.getString("fname"));
           labeldob.setText(rs.getString("dob"));
           tfaddress.setText(rs.getString("address"));
           tfphone.setText(rs.getString("phone"));
```

```
                tfemail.setText(rs.getString("email"));
                labelx.setText(rs.getString("class_x"));
                labelxii.setText(rs.getString("class_xii"));
                labelcnic.setText(rs.getString("cnic"));
                labelrollno.setText(rs.getString("rollno"));
                tfcourse.setText(rs.getString("course"));
                tfbranch.setText(rs.getString("branch"));
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
});

submit = new JButton("Update");
submit.setBounds(250, 500, 120, 30);
submit.setBackground(Color.WHITE);
submit.setForeground(Color.BLUE);
submit.addActionListener(this);
submit.setFont(new Font("Tahoma", Font.BOLD, 15));
add(submit);

cancel = new JButton("Cancel");
cancel.setBounds(450, 500, 120, 30);
cancel.setBackground(Color.WHITE);
cancel.setForeground(Color.RED);
cancel.addActionListener(this);
cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
add(cancel);

setVisible(true);
}
```

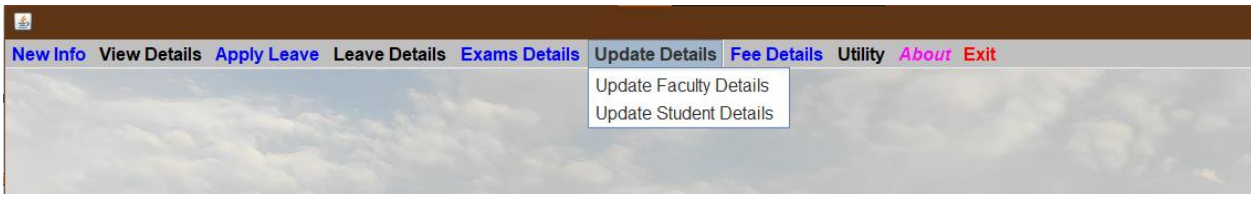
```
    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            String rollno = labelrollno.getText();
            String address = tfaddress.getText();
            String phone = tfphone.getText();
            String email = tfemail.getText();
            String course = tfcourse.getText();
            String branch = tfbranch.getText();

            try {
                String query = "update student set address='"+address+"', phone='"+phone+"', email='"+email+"',
course='"+course+"', branch='"+branch+"' where rollno='"+rollno+"'";
                dbConnectivity con = new dbConnectivity();
                con.s.executeUpdate(query);

                JOptionPane.showMessageDialog(null, "Student Details Updated Successfully");
                setVisible(false);
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else {
            setVisible(false);
        }
    }

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

- **OUTPUT (SCREENSHOT) FOR UPDATE STUDENT DETAILS WINDOW**





- **PROGRAM CODE FOR UPDATE TEACHER DETAILS WINDOW**




```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
```

```
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.sql.*;

public class UpdateTeacher extends JFrame implements ActionListener{

    JTextField tfcourse, tfaddress, tfphone, tfemail, tfbranch;
    JLabel labelEmpId;
    JButton submit, cancel;
    Choice cEmpId;

    UpdateTeacher() {

        setSize(900, 650);
        setLocation(350, 50);

        setLayout(null);

        JLabel heading = new JLabel("Update Teacher Details");
        heading.setBounds(50, 10, 500, 50);
        heading.setFont(new Font("Tahoma", Font.ITALIC, 35));
        add(heading);
```

```
JLabel lblrollnumber = new JLabel("Select Employee Id");
lblrollnumber.setBounds(50, 100, 200, 20);
lblrollnumber.setFont(new Font("serif", Font.PLAIN, 20));
add(lblrollnumber);

cEmpId = new Choice();
cEmpId.setBounds(250, 100, 200, 20);
add(cEmpId);

try {
    dbConnectivity c = new  dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from teacher");
   while(rs.next()) {
      cEmpId.add(rs.getString("empId"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

JLabel lblname = new JLabel("Name");
lblname.setBounds(50, 150, 100, 30);
lblname.setFont(new Font("serif", Font.BOLD, 20));
add(lblname);

JLabel labelname = new JLabel();
labelname.setBounds(200, 150, 150, 30);
labelname.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelname);

JLabel lblfname = new JLabel("Father's Name");
lblfname.setBounds(400, 150, 200, 30);
lblfname.setFont(new Font("serif", Font.BOLD, 20));
add(lblfname);
```

```
JLabel labelfname = new JLabel();
labelfname.setBounds(600, 150, 150, 30);
labelfname.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelfname);

JLabel lblrollno = new JLabel("Employee Id");
lblrollno.setBounds(50, 200, 200, 30);
lblrollno.setFont(new Font("serif", Font.BOLD, 20));
add(lblrollno);

labelEmpId = new JLabel();
labelEmpId.setBounds(200, 200, 200, 30);
labelEmpId.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelEmpId);

JLabel lbldob = new JLabel("Date of Birth");
lbldob.setBounds(400, 200, 200, 30);
lbldob.setFont(new Font("serif", Font.BOLD, 20));
add(lbldob);

JLabel labeldob = new JLabel();
labeldob.setBounds(600, 200, 150, 30);
labeldob.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labeldob);

JLabel lbladdress = new JLabel("Address");
lbladdress.setBounds(50, 250, 200, 30);
lbladdress.setFont(new Font("serif", Font.BOLD, 20));
add(lbladdress);

tfaddress = new JTextField();
tfaddress.setBounds(200, 250, 150, 30);
```

```
add(tfaddress);

JLabel lblphone = new JLabel("Phone");
lblphone.setBounds(400, 250, 200, 30);
lblphone.setFont(new Font("serif", Font.BOLD, 20));
add(lblphone);

tfphone = new JTextField();
tfphone.setBounds(600, 250, 150, 30);
add(tfphone);

JLabel lblemail = new JLabel("Email Id");
lblemail.setBounds(50, 300, 200, 30);
lblemail.setFont(new Font("serif", Font.BOLD, 20));
add(lblemail);

tfemail = new JTextField();
tfemail.setBounds(200, 300, 150, 30);
add(tfemail);

JLabel lblx = new JLabel("MATRIC'%'");
lblx.setBounds(400, 300, 200, 30);
lblx.setFont(new Font("serif", Font.BOLD, 20));
add(lblx);

JLabel labelx = new JLabel();
labelx.setBounds(600, 300, 150, 30);
labelx.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelx);

JLabel lblxii = new JLabel("FSc '%'");
lblxii.setBounds(50, 350, 200, 30);
lblxii.setFont(new Font("serif", Font.BOLD, 20));
```

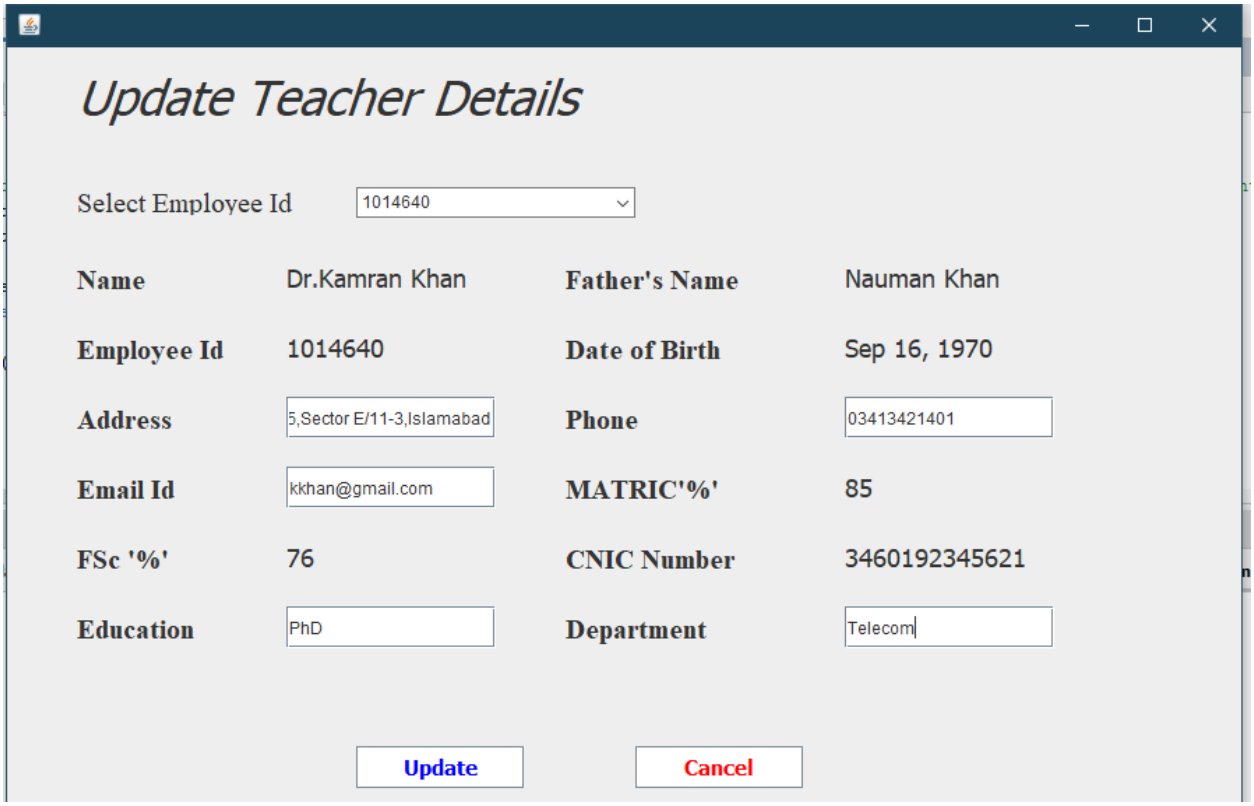
```
add(lblxii);

JLabel labelxii = new JLabel();
labelxii.setBounds(200, 350, 150, 30);
labelxii.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelxii);

JLabel lblcnic = new JLabel("CNIC Number");
lblcnic.setBounds(400, 350, 200, 30);
lblcnic.setFont(new Font("serif", Font.BOLD, 20));
add(lblcnic);

JLabel labelcnic = new JLabel();
labelcnic.setBounds(600, 350, 150, 30);
labelcnic.setFont(new Font("Tahoma", Font.PLAIN, 18));
add(labelcnic);

JLabel lblcourse = new JLabel("Education");
lblcourse.setBounds(50, 400, 200, 30);
lblcourse.setFont(new Font("serif", Font.BOLD, 20));
add(lblcourse);

tfcourse = new JTextField();
tfcourse.setBounds(200, 400, 150, 30);
add(tfcourse);

JLabel lblbranch = new JLabel("Department");
lblbranch.setBounds(400, 400, 200, 30);
lblbranch.setFont(new Font("serif", Font.BOLD, 20));
add(lblbranch);

tfbranch = new JTextField();
tfbranch.setBounds(600, 400, 150, 30);
```

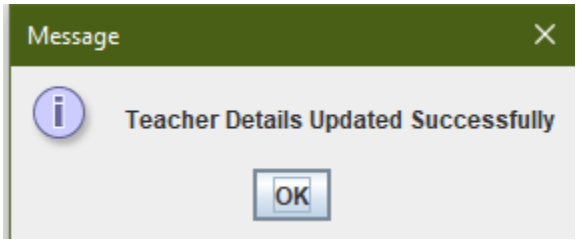
```
add(tfbranch);


try {
    dbConnectivity c = new  dbConnectivity();
   String query = "select * from teacher where empId='"+cEmpId.getSelectedItem()+"'";
   ResultSet rs = c.s.executeQuery(query);
   while(rs.next()) {
      labelname.setText(rs.getString("name"));
      labelfname.setText(rs.getString("fname"));
      labeldob.setText(rs.getString("dob"));
      tfaddress.setText(rs.getString("address"));
      tfphone.setText(rs.getString("phone"));
      tfemail.setText(rs.getString("email"));
      labelx.setText(rs.getString("class_x"));
      labelxii.setText(rs.getString("class_xii"));
      labelcnic.setText(rs.getString("cnic"));
      labelEmpId.setText(rs.getString("empId"));
      tfcourse.setText(rs.getString("education"));
      tfbranch.setText(rs.getString("department"));
   }
} catch (Exception e) {
   e.printStackTrace();
}


cEmpId.addItemListener(new ItemListener() {
   public void itemStateChanged(ItemEvent ie) {
      try {
         dbConnectivity c = new  dbConnectivity();
         String query = "select * from teacher where empId='"+cEmpId.getSelectedItem()+"'";
         ResultSet rs = c.s.executeQuery(query);
         while(rs.next()) {
            labelname.setText(rs.getString("name"));
            labelfname.setText(rs.getString("fname"));
```

```
            labeldob.setText(rs.getString("dob"));
            tfaddress.setText(rs.getString("address"));
            tfphone.setText(rs.getString("phone"));
            tfemail.setText(rs.getString("email"));
            labelx.setText(rs.getString("class_x"));
            labelxii.setText(rs.getString("class_xii"));
            labelcnic.setText(rs.getString("cnic"));
            labelEmpId.setText(rs.getString("empId"));
            tfcourse.setText(rs.getString("education"));
            tfbranch.setText(rs.getString("department"));
          }
        } catch (Exception e) {
          e.printStackTrace();
        }
    }
});

submit = new JButton("Update");
submit.setBounds(250, 500, 120, 30);
submit.setBackground(Color.WHITE);
submit.setForeground(Color.BLUE);
submit.addActionListener(this);
submit.setFont(new Font("Tahoma", Font.BOLD, 15));
add(submit);

cancel = new JButton("Cancel");
cancel.setBounds(450, 500, 120, 30);
cancel.setBackground(Color.WHITE);
cancel.setForeground(Color.RED);
cancel.addActionListener(this);
cancel.setFont(new Font("Tahoma", Font.BOLD, 15));
add(cancel);
```

```
        setVisible(true);
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == submit) {
            String empId = labelEmpId.getText();
            String address = tfaddress.getText();
            String phone = tfphone.getText();
            String email = tfemail.getText();
            String course = tfcourse.getText();
            String branch = tfbranch.getText();

            try {
                String query = "update teacher set address='"+address+"', phone='"+phone+"', email='"+email+"',
education='"+course+"', department='"+branch+"' where empId='"+empId+"'";
                 dbConnectivity con = new  dbConnectivity();
                con.s.executeUpdate(query);

                JOptionPane.showMessageDialog(null, "Student Details Updated Successfully");
                setVisible(false);
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else {
            setVisible(false);
        }
    }

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

- **OUTPUT (SCREENSHOT) FOR UPDATE TEACHER WINDOW**





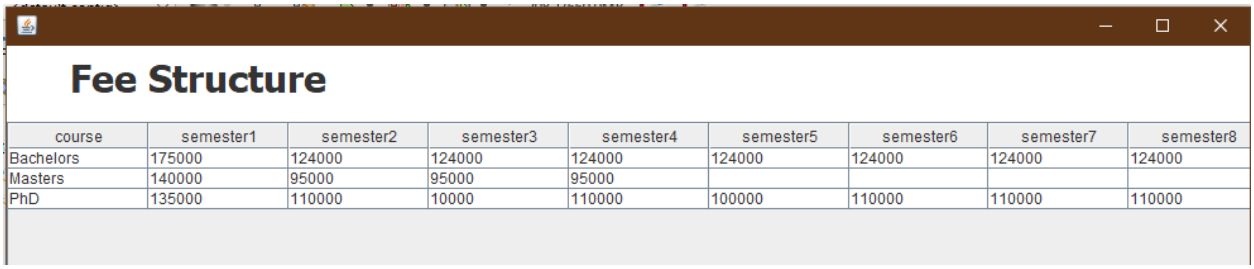
- **PROGRAM CODE FOR FEE STRUCTURE WINDOW**

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
```

```
 */

/**
 *
 * @author M Ahmad Sultan
 */

package college.management.system;



import javax.swing.*;
import java.awt.*;
import java.sql.*;
import net.proteanit.sql.DbUtils;

public class FeeStructure extends JFrame {

    FeeStructure() {
        setSize(1000, 700);
        setLocation(250, 50);
        setLayout(null);

        getContentPane().setBackground(Color.WHITE);

        JLabel heading = new JLabel("Fee Structure");
        heading.setBounds(50, 10, 400, 30);
        heading.setFont(new Font("Tahoma", Font.BOLD, 30));
        add(heading);

        JTable table = new JTable();

        try {
```

```
            dbConnectivity c = new dbConnectivity();
            ResultSet rs = c.s.executeQuery("select * from fee_");
            table.setModel(DbUtils.resultSetToTableModel(rs));
        } catch (Exception e) {
            e.printStackTrace();
        }

        JScrollPane jsp = new JScrollPane(table);
        jsp.setBounds(0, 60, 1000, 700);
        add(jsp);
        setVisible(true);
    }
    public static void main(String[] args) {
        new FeeStructure();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR FEE STRUCTURE WINDOW**



course	semester1	semester2	semester3	semester4	semester5	semester6	semester7	semester8
Bachelors	175000	124000	124000	124000	124000	124000	124000	124000
Masters	140000	95000	95000	95000				
PhD	135000	110000	10000	110000	100000	110000	110000	110000

➢ PROGRAM CODE FOR STUDENT FEE FORM WINDOW

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package college.management.system;

/**
 *
 * @author Muhammad Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

public class StudentFeeForm extends JFrame implements ActionListener {

    Choice rollno_;
    JComboBox course_, branch_, semester_;
    JLabel labeltotal;
    JButton update, pay, back;

    StudentFeeForm() {
        setSize(900, 500);
        setLocation(300, 100);
        setLayout(null);

        getContentPane().setBackground(Color.WHITE);

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/fee@.jpg"));
        Image i2 = i1.getImage().getScaledInstance(500, 300, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
```

```
JLabel image = new JLabel(i3);
image.setBounds(400, 50, 500, 300);
add(image);

JLabel lblrollnumber = new JLabel("Select Roll No");
lblrollnumber.setBounds(40, 60, 150, 20);
lblrollnumber.setFont(new Font("Tahoma", Font.BOLD, 16));
add(lblrollnumber);

rollno_ = new Choice();
rollno_.setBounds(200, 60, 150, 20);
add(rollno_);

try {
   dbConnectivity c = new dbConnectivity();
   ResultSet rs = c.s.executeQuery("select * from student");
   while(rs.next()) {
      rollno_.add(rs.getString("rollno"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

JLabel lblname = new JLabel("Name");
lblname.setBounds(40, 100, 150, 20);
lblname.setFont(new Font("Tahoma", Font.BOLD, 16));
add(lblname);

JLabel labelname = new JLabel();
labelname.setBounds(200, 100, 150, 20);
labelname.setFont(new Font("Tahoma", Font.PLAIN, 16));
add(labelname);
```

```
JLabel lblfname = new JLabel("Father's Name");
lblfname.setBounds(40, 140, 150, 20);
lblfname.setFont(new Font("Tahoma", Font.BOLD, 16));
add(lblfname);

JLabel labelfname = new JLabel();
labelfname.setBounds(200, 140, 150, 20);
labelfname.setFont(new Font("Tahoma", Font.PLAIN, 16));
add(labelfname);

try {
   dbConnectivity c = new dbConnectivity();
   String query = "select * from student where rollno='"+rollno_.getSelectedItem()+"'";
   ResultSet rs = c.s.executeQuery(query);
   while(rs.next()) {
      labelname.setText(rs.getString("name"));
      labelfname.setText(rs.getString("fname"));
   }
} catch (Exception e) {
   e.printStackTrace();
}

rollno_.addItemListener(new ItemListener() {
   public void itemStateChanged(ItemEvent ie) {
      try {
         dbConnectivity c = new dbConnectivity();
         String query = "select * from student where rollno='"+rollno_.getSelectedItem()+"'";
         ResultSet rs = c.s.executeQuery(query);
         while(rs.next()) {
            labelname.setText(rs.getString("name"));
            labelfname.setText(rs.getString("fname"));
         }
      } catch (Exception e) {
```

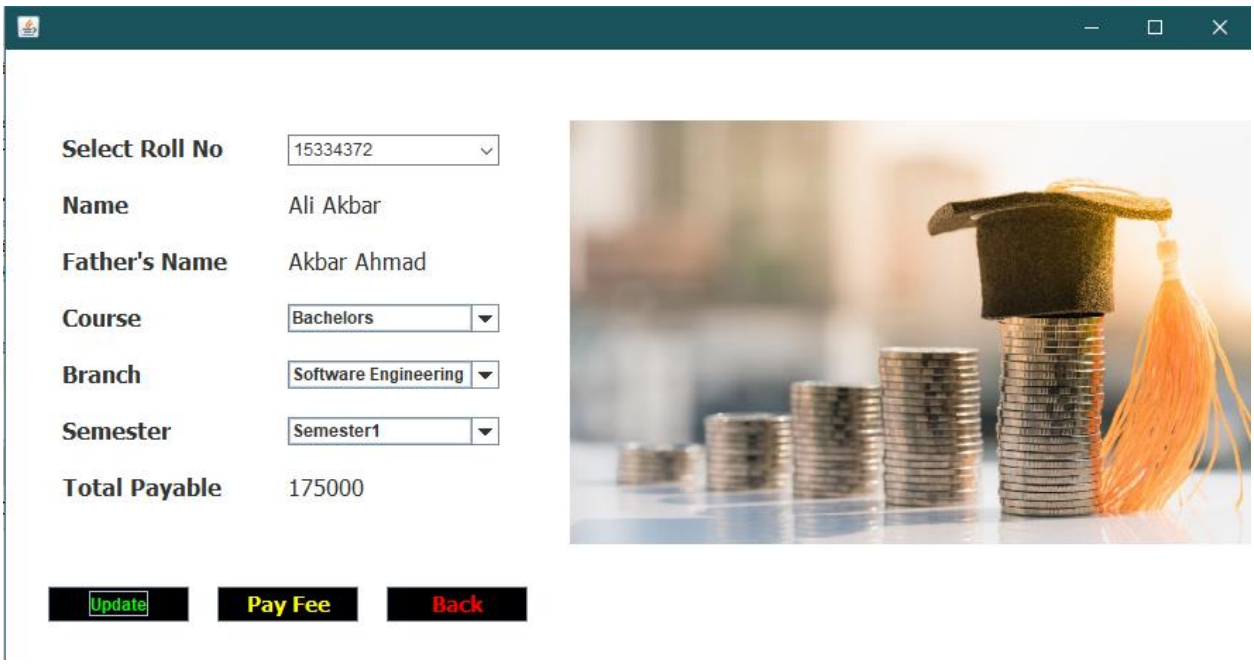
```
            e.printStackTrace();
          }
        }
    });

    JLabel lblcourse = new JLabel("Course");
    lblcourse.setBounds(40, 180, 150, 20);
    lblcourse.setFont(new Font("Tahoma", Font.BOLD, 16));
    add(lblcourse);

    String course[] = {"Bachelors", "Masters", "PhD"};
    course_ = new JComboBox(course);
    course_.setBounds(200, 180, 150, 20);
    course_.setBackground(Color.WHITE);
    add(course_);

    JLabel lblbranch = new JLabel("Branch");
    lblbranch.setBounds(40, 220, 150, 20);
    lblbranch.setFont(new Font("Tahoma", Font.BOLD, 16));
    add(lblbranch);

    String branch[] = {"Software Engineering", "Computer Science", "Electrical Engineering", "Info Security",
"Telecom"};
    branch_ = new JComboBox(branch);
    branch_.setBounds(200, 220, 150, 20);
    branch_.setBackground(Color.WHITE);
    add(branch_);

    JLabel lblsemester = new JLabel("Semester");
    lblsemester.setBounds(40, 260, 150, 20);
    lblsemester.setFont(new Font("Tahoma", Font.BOLD, 16));
    add(lblsemester);
```

```
        String semester[] = {"Semester1", "Semester2", "Semester3", "Semester4", "Semester5", "Semester6",
"Semester7", "Semester8" };
        semester_ = new JComboBox(semester);
        semester_.setBounds(200, 260, 150, 20);
        semester_.setBackground(Color.WHITE);
        add(semester_);

        JLabel lbltotal = new JLabel("Total Payable");
        lbltotal.setBounds(40, 300, 150, 20);
        lbltotal.setFont(new Font("Tahoma", Font.BOLD, 16));
        add(lbltotal);

        labeltotal = new JLabel();
        labeltotal.setBounds(200, 300, 150, 20);
        labeltotal.setFont(new Font("Tahoma", Font.PLAIN, 16));
        add(labeltotal);

        update = new JButton("Update");
        update.setBounds(30, 380, 100, 25);
        update.setBackground(Color.BLACK);
        update.setForeground(Color.GREEN);
        update.addActionListener(this);
        add(update);

        pay = new JButton("Pay Fee");
        pay.setBounds(150, 380, 100, 25);
        pay.setBackground(Color.BLACK);
        pay.setForeground(Color.YELLOW);
        pay.addActionListener(this);
        pay.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(pay);

        back = new JButton("Back");
        back.setBounds(270, 380, 100, 25);
```

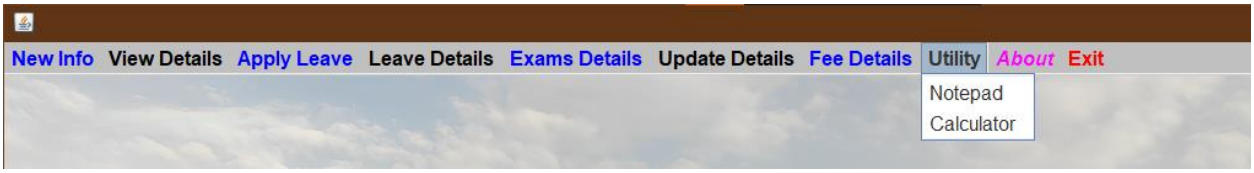
```
        back.setBackground(Color.BLACK);
        back.setForeground(Color.RED);
        back.addActionListener(this);
        back.setFont(new Font("Tahoma", Font.BOLD, 15));
        add(back);

        setVisible(true);
    }

    public void actionPerformed(ActionEvent ae) {
        if (ae.getSource() == update) {
            String course = (String) course_.getSelectedItem();
            String semester = (String) semester_.getSelectedItem();
            try {
                dbConnectivity c = new dbConnectivity();
                ResultSet rs = c.s.executeQuery("select * from fee where course = '"+course+"'");
                while(rs.next()) {
                    labeltotal.setText(rs.getString(semester));
                }
            } catch (Exception e) {
                e.printStackTrace();
            }
        } else if (ae.getSource() == pay) {
            String rollno = rollno_.getSelectedItem();
            String course = (String) course_.getSelectedItem();
            String semester = (String) semester_.getSelectedItem();
            String branch = (String) branch_.getSelectedItem();
            String total = labeltotal.getText();

            try {
                dbConnectivity c = new dbConnectivity();

                String query = "insert into collegefee values('"+rollno+"', '"+course+"', '"+branch+"', '"+semester+"',
'"+total+"')";
```

```
            c.s.executeUpdate(query);

            JOptionPane.showMessageDialog(null, "College fee submitted successfully");
            setVisible(false);
          } catch (Exception e) {
            e.printStackTrace();
          }
        } else {
          setVisible(false);
        }
    }

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

- ## OUTPUT (SCREENSHOT) FOR STUDENT FEE FORM WINDOW



➢ PROGRAM CODE FOR NOTEPAD WINDOW




```
package college.management.system;

/**
 *
 * @author Muhammad  Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class Project extends JFrame implements ActionListener {

    Project() {
        setSize(1300, 700);

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/Nust.png"));
        Image i2 = i1.getImage().getScaledInstance(1300, 700, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
        JLabel image = new JLabel(i3);
        add(image);

      JMenuBar mb = new JMenuBar();
      mb.setBackground(Color.LIGHT_GRAY);

        // New Information
```

```
JMenu newInformation = new JMenu("New Info");
newInformation.setForeground(Color.BLUE);
newInformation.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(newInformation);

JMenuItem facultyInfo = new JMenuItem("New Faculty Information");
facultyInfo.setBackground(Color.WHITE);
facultyInfo.addActionListener(this);
facultyInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(facultyInfo);

JMenuItem studentInfo = new JMenuItem("New Student Information");
studentInfo.setBackground(Color.WHITE);
studentInfo.addActionListener(this);
studentInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(studentInfo);

// Details
JMenu details = new JMenu("View Details");
details.setForeground(Color.BLACK);
details.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(details);

JMenuItem facultydetails = new JMenuItem("View Faculty Details");
facultydetails.setBackground(Color.WHITE);
facultydetails.addActionListener(this);
facultydetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(facultydetails);

JMenuItem studentdetails = new JMenuItem("View Student Details");
studentdetails.setBackground(Color.WHITE);
studentdetails.addActionListener(this);
studentdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
```

```
details.add(studentdetails);

// Leave
JMenu leave = new JMenu("Apply Leave");
leave.setForeground(Color.BLUE);
leave.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leave);

JMenuItem facultyleave = new JMenuItem("Faculty Leave");
facultyleave.setBackground(Color.WHITE);
facultyleave.addActionListener(this);
facultyleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(facultyleave);

JMenuItem studentleave = new JMenuItem("Student Leave");
studentleave.setBackground(Color.WHITE);
studentleave.addActionListener(this);
studentleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(studentleave);

// Leave Details
JMenu leaveDetails = new JMenu("Leave Details");
leaveDetails.setForeground(Color.BLACK);
leaveDetails.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leaveDetails);

JMenuItem facultyleavedetails = new JMenuItem("Faculty Leave Details");
facultyleavedetails.setBackground(Color.WHITE);
facultyleavedetails.addActionListener(this);
facultyleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(facultyleavedetails);

JMenuItem studentleavedetails = new JMenuItem("Student Leave Details");
```

```
studentleavedetails.setBackground(Color.WHITE);
studentleavedetails.addActionListener(this);
studentleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(studentleavedetails);

// Exams
JMenu exam = new JMenu("Exams Details");
exam.setForeground(Color.BLUE);
exam.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(exam);

JMenuItem examinationdetails = new JMenuItem("Examination Results");
examinationdetails.setBackground(Color.WHITE);
examinationdetails.addActionListener(this);
examinationdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(examinationdetails);

JMenuItem entermarks = new JMenuItem("Enter Marks");
entermarks.setBackground(Color.WHITE);
entermarks.addActionListener(this);
entermarks.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(entermarks);

// UpdateInfo
JMenu updateInfo = new JMenu("Update Details");
updateInfo.setForeground(Color.BLACK);
updateInfo.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(updateInfo);

JMenuItem updatefacultyinfo = new JMenuItem("Update Faculty Details");
updatefacultyinfo.setBackground(Color.WHITE);
updatefacultyinfo.addActionListener(this);
updatefacultyinfo.setFont(new Font("sansserif", Font.PLAIN, 16));
```

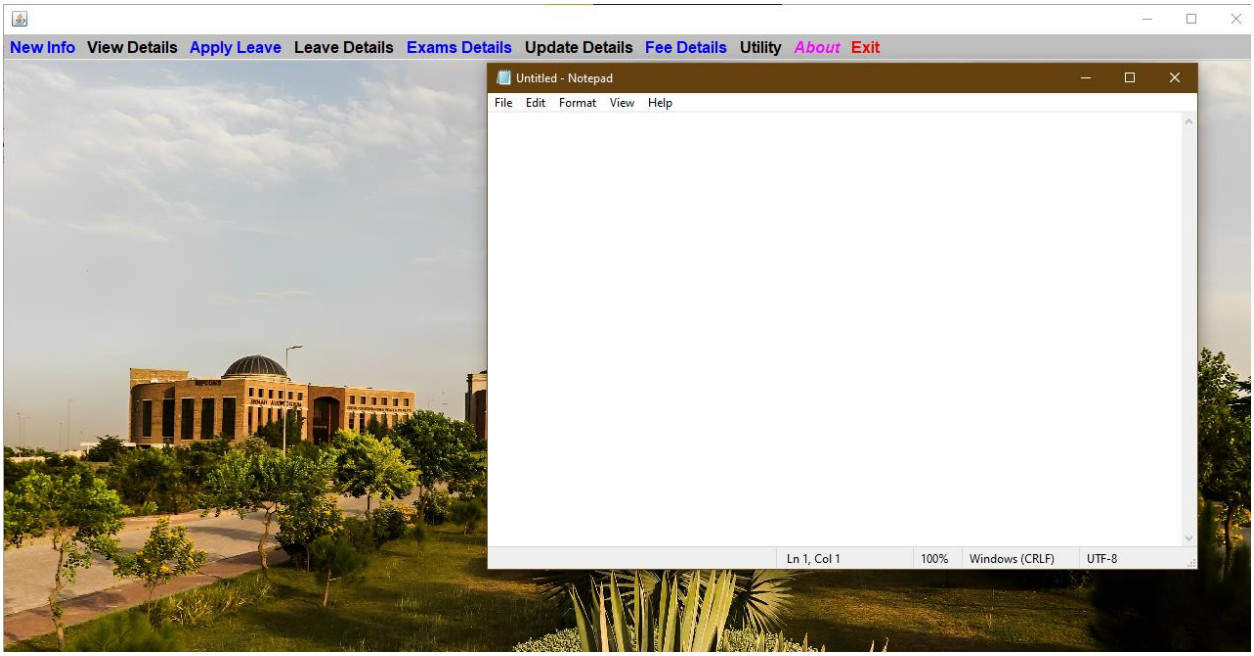
```
updateInfo.add(updatefacultyinfo);

JMenuItem updatestudentinfo = new JMenuItem("Update Student Details");
updatestudentinfo.setBackground(Color.WHITE);
updatestudentinfo.addActionListener(this);
updatestudentinfo .setFont(new Font("sansserif", Font.PLAIN, 16));
updateInfo.add(updatestudentinfo);

// fee
JMenu fee = new JMenu("Fee Details");
fee.setForeground(Color.BLUE);
fee.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(fee);

JMenuItem feestructure = new JMenuItem("Fee Structure");
feestructure.setBackground(Color.WHITE);
feestructure.addActionListener(this);
feestructure .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feestructure);

JMenuItem feeform = new JMenuItem("Student Fee Form");
feeform.setBackground(Color.WHITE);
feeform.addActionListener(this);
feeform .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feeform);

// Utility
JMenu utility = new JMenu("Utility");
utility.setForeground(Color.BLACK);
utility.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(utility);

JMenuItem notepad = new JMenuItem("Notepad");
```

```
notepad.setBackground(Color.WHITE);
notepad.addActionListener(this);
notepad .setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(notepad);

JMenuItem calc = new JMenuItem("Calculator");
calc.setBackground(Color.WHITE);
calc.addActionListener(this);
calc.setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(calc);

// about
JMenu about = new JMenu("About");
about.setForeground(Color.MAGENTA);
about.setFont(new Font("sansserif", Font.BOLD|Font.ITALIC, 16));
mb.add(about);

JMenuItem ab = new JMenuItem("About");
ab.setBackground(Color.WHITE);
ab.addActionListener(this);
ab.setFont(new Font("sansserif", Font.PLAIN, 16));
about.add(ab);

// exit
JMenu exit = new JMenu("Exit");
exit.setForeground(Color.RED);
exit.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(exit);

JMenuItem ex = new JMenuItem("Exit");
ex.setBackground(Color.WHITE);
ex.addActionListener(this);
ex.setFont(new Font("sansserif", Font.PLAIN, 16));
```

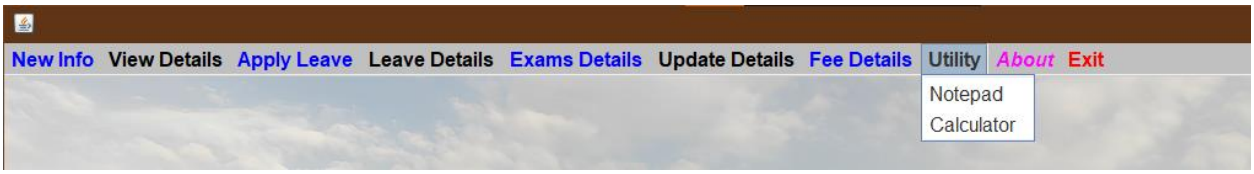
```
    exit.add(ex);

    setJMenuBar(mb);

    setVisible(true);
}

public void actionPerformed(ActionEvent ae) {
    String msg = ae.getActionCommand();

    if (msg.equals("Exit")) {
        setVisible(false);
    } else if (msg.equals("Calculator")) {
        try {
            Runtime.getRuntime().exec("calc.exe");
        } catch (Exception e) {

        }
    } else if (msg.equals("Notepad")) {
        try {
            Runtime.getRuntime().exec("notepad.exe");
        } catch (Exception e) {

        }
    } else if (msg.equals("New Faculty Information")) {
        new AddTeacher();
    } else if (msg.equals("New Student Information")) {
        new AddStudent();
    } else if (msg.equals("View Faculty Details")) {
        new TeacherDetails();
    } else if (msg.equals("View Student Details")) {
        new StudentDetails();
    } else if (msg.equals("Faculty Leave")) {
```

```
            new TeacherLeave();
        } else if (msg.equals("Student Leave")) {
            new StudentLeave();
        } else if (msg.equals("Faculty Leave Details")) {
            new TeacherLeaveDetails();
        } else if (msg.equals("Student Leave Details")) {
            new StudentLeaveDetails();
        } else if (msg.equals("Update Faculty Details")) {
            new UpdateTeacher();
        } else if (msg.equals("Update Student Details")) {
            new UpdateStudent();
        } else if (msg.equals("Enter Marks")) {
            new EnterMarks();
        } else if (msg.equals("Examination Results")) {
            new ExaminationDetails();
        } else if (msg.equals("Fee Structure")) {
            new FeeStructure();
        } else if (msg.equals("About")) {
            new About();
        } else if (msg.equals("Student Fee Form")) {
            new StudentFeeForm();
        }
    }

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

- ## OUTPUT (SCREENSHOT) FOR NOTEPAD WINDOW



➢ PROGRAM CODE FOR CALCULATOR WINDOW




```
package college.management.system;


/**
 *
 * @author Muhammad  Ahmad Sultan
 */


import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
```

```
public class Project extends JFrame implements ActionListener {

    Project() {
        setSize(1300, 700);

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/Nust.png"));
        Image i2 = i1.getImage().getScaledInstance(1300, 700, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
        JLabel image = new JLabel(i3);
        add(image);

       JMenuBar mb = new JMenuBar();
       mb.setBackground(Color.LIGHT_GRAY);

        // New Information
        JMenu newInformation = new JMenu("New Info");
        newInformation.setForeground(Color.BLUE);
        newInformation.setFont(new Font("sansserif", Font.BOLD, 16));
        mb.add(newInformation);

        JMenuItem facultyInfo = new JMenuItem("New Faculty Information");
        facultyInfo.setBackground(Color.WHITE);
        facultyInfo.addActionListener(this);
        facultyInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
        newInformation.add(facultyInfo);

        JMenuItem studentInfo = new JMenuItem("New Student Information");
        studentInfo.setBackground(Color.WHITE);
        studentInfo.addActionListener(this);
        studentInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
        newInformation.add(studentInfo);

        // Details
```

```
JMenu details = new JMenu("View Details");
details.setForeground(Color.BLACK);
details.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(details);

JMenuItem facultydetails = new JMenuItem("View Faculty Details");
facultydetails.setBackground(Color.WHITE);
facultydetails.addActionListener(this);
facultydetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(facultydetails);

JMenuItem studentdetails = new JMenuItem("View Student Details");
studentdetails.setBackground(Color.WHITE);
studentdetails.addActionListener(this);
studentdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(studentdetails);

// Leave
JMenu leave = new JMenu("Apply Leave");
leave.setForeground(Color.BLUE);
leave.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leave);

JMenuItem facultyleave = new JMenuItem("Faculty Leave");
facultyleave.setBackground(Color.WHITE);
facultyleave.addActionListener(this);
facultyleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(facultyleave);

JMenuItem studentleave = new JMenuItem("Student Leave");
studentleave.setBackground(Color.WHITE);
studentleave.addActionListener(this);
studentleave.setFont(new Font("sansserif", Font.PLAIN, 16));
```

```
leave.add(studentleave);

// Leave Details
JMenu leaveDetails = new JMenu("Leave Details");
leaveDetails.setForeground(Color.BLACK);
leaveDetails.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leaveDetails);

JMenuItem facultyleavedetails = new JMenuItem("Faculty Leave Details");
facultyleavedetails.setBackground(Color.WHITE);
facultyleavedetails.addActionListener(this);
facultyleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(facultyleavedetails);

JMenuItem studentleavedetails = new JMenuItem("Student Leave Details");
studentleavedetails.setBackground(Color.WHITE);
studentleavedetails.addActionListener(this);
studentleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(studentleavedetails);

// Exams
JMenu exam = new JMenu("Exams Details");
exam.setForeground(Color.BLUE);
exam.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(exam);

JMenuItem examinationdetails = new JMenuItem("Examination Results");
examinationdetails.setBackground(Color.WHITE);
examinationdetails.addActionListener(this);
examinationdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(examinationdetails);

JMenuItem entermarks = new JMenuItem("Enter Marks");
```

```
entermarks.setBackground(Color.WHITE);
entermarks.addActionListener(this);
entermarks.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(entermarks);

// UpdateInfo
JMenu updateInfo = new JMenu("Update Details");
updateInfo.setForeground(Color.BLACK);
updateInfo.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(updateInfo);

JMenuItem updatefacultyinfo = new JMenuItem("Update Faculty Details");
updatefacultyinfo.setBackground(Color.WHITE);
updatefacultyinfo.addActionListener(this);
updatefacultyinfo.setFont(new Font("sansserif", Font.PLAIN, 16));
updateInfo.add(updatefacultyinfo);

JMenuItem updatestudentinfo = new JMenuItem("Update Student Details");
updatestudentinfo.setBackground(Color.WHITE);
updatestudentinfo.addActionListener(this);
updatestudentinfo .setFont(new Font("sansserif", Font.PLAIN, 16));
updateInfo.add(updatestudentinfo);

// fee
JMenu fee = new JMenu("Fee Details");
fee.setForeground(Color.BLUE);
fee.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(fee);

JMenuItem feestructure = new JMenuItem("Fee Structure");
feestructure.setBackground(Color.WHITE);
feestructure.addActionListener(this);
feestructure .setFont(new Font("sansserif", Font.PLAIN, 16));
```

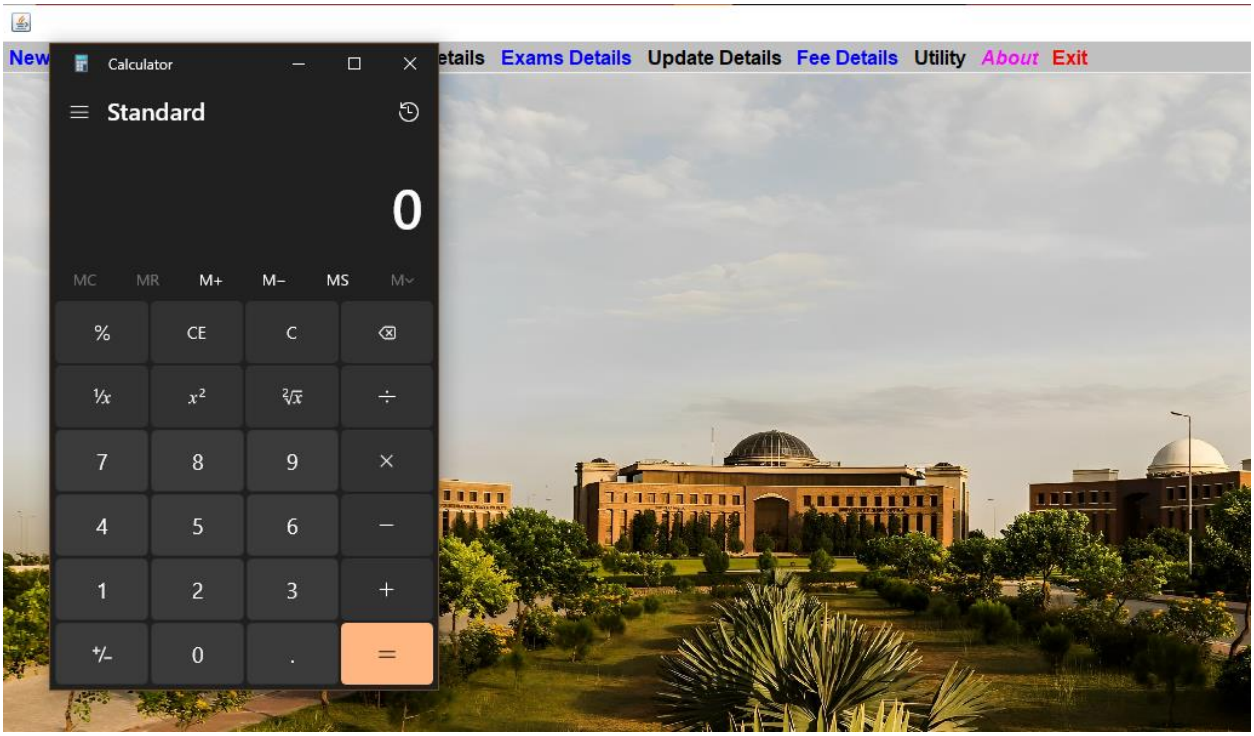
```
fee.add(feestructure);

JMenuItem feeform = new JMenuItem("Student Fee Form");
feeform.setBackground(Color.WHITE);
feeform.addActionListener(this);
feeform .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feeform);

// Utility
JMenu utility = new JMenu("Utility");
utility.setForeground(Color.BLACK);
utility.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(utility);

JMenuItem notepad = new JMenuItem("Notepad");
notepad.setBackground(Color.WHITE);
notepad.addActionListener(this);
notepad .setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(notepad);

JMenuItem calc = new JMenuItem("Calculator");
calc.setBackground(Color.WHITE);
calc.addActionListener(this);
calc.setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(calc);

// about
JMenu about = new JMenu("About");
about.setForeground(Color.MAGENTA);
about.setFont(new Font("sansserif", Font.BOLD|Font.ITALIC, 16));
mb.add(about);

JMenuItem ab = new JMenuItem("About");
```

```
    ab.setBackground(Color.WHITE);
    ab.addActionListener(this);
    ab.setFont(new Font("sansserif", Font.PLAIN, 16));
    about.add(ab);

    // exit
    JMenu exit = new JMenu("Exit");
    exit.setForeground(Color.RED);
    exit.setFont(new Font("sansserif", Font.BOLD, 16));
    mb.add(exit);

    JMenuItem ex = new JMenuItem("Exit");
    ex.setBackground(Color.WHITE);
    ex.addActionListener(this);
    ex.setFont(new Font("sansserif", Font.PLAIN, 16));
    exit.add(ex);

    setJMenuBar(mb);

    setVisible(true);
}

public void actionPerformed(ActionEvent ae) {
    String msg = ae.getActionCommand();

    if (msg.equals("Exit")) {
        setVisible(false);
    } else if (msg.equals("Calculator")) {
        try {
            Runtime.getRuntime().exec("calc.exe");
        } catch (Exception e) {

        }
```

```
} else if (msg.equals("Notepad")) {
    try {
        Runtime.getRuntime().exec("notepad.exe");
    } catch (Exception e) {

    }
} else if (msg.equals("New Faculty Information")) {
    new AddTeacher();
} else if (msg.equals("New Student Information")) {
    new AddStudent();
} else if (msg.equals("View Faculty Details")) {
    new TeacherDetails();
} else if (msg.equals("View Student Details")) {
    new StudentDetails();
} else if (msg.equals("Faculty Leave")) {
    new TeacherLeave();
} else if (msg.equals("Student Leave")) {
    new StudentLeave();
} else if (msg.equals("Faculty Leave Details")) {
    new TeacherLeaveDetails();
} else if (msg.equals("Student Leave Details")) {
    new StudentLeaveDetails();
} else if (msg.equals("Update Faculty Details")) {
    new UpdateTeacher();
} else if (msg.equals("Update Student Details")) {
    new UpdateStudent();
} else if (msg.equals("Enter Marks")) {
    new EnterMarks();
} else if (msg.equals("Examination Results")) {
    new ExaminationDetails();
} else if (msg.equals("Fee Structure")) {
    new FeeStructure();
} else if (msg.equals("About")) {
```

```
            new About();
        } else if (msg.equals("Student Fee Form")) {
            new StudentFeeForm();
        }
    }

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

- ## OUTPUT (SCREENSHOT) FOR CALCULATOR WINDOW



➢ PROGRAM CODE FOR ABOUT DEV WINDOW

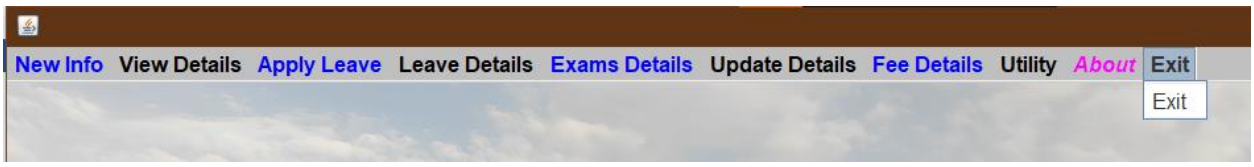
```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */

/**
 *
 * @author Muhammad Ahmad Sultan
 */
package college.management.system;

import javax.swing.*;
import java.awt.*;
public class About extends JFrame {

   About() {
      setSize(700, 840);
      setLocation(350, 5);
      getContentPane().setBackground(Color.WHITE);

      // Top left logo
      ImageIcon logo1 = new ImageIcon(ClassLoader.getSystemResource("icons/nustlogo.png"));
      Image logo1Scaled = logo1.getImage().getScaledInstance(100, 100, Image.SCALE_DEFAULT);
      ImageIcon logo1Icon = new ImageIcon(logo1Scaled);
      JLabel logo1Label = new JLabel(logo1Icon);
      logo1Label.setBounds(10, 10, 100, 100);
      add(logo1Label);

      // Top right logo
      ImageIcon logo2 = new ImageIcon(ClassLoader.getSystemResource("icons/mcs.png"));
      Image logo2Scaled = logo2.getImage().getScaledInstance(100, 100, Image.SCALE_DEFAULT);
      ImageIcon logo2Icon = new ImageIcon(logo2Scaled);
      JLabel logo2Label = new JLabel(logo2Icon);
```

```
        logo2Label.setBounds(580, 10, 100, 100);
        add(logo2Label);

        // Main heading
        JLabel heading = new JLabel("<html><div style='text-align: center;'>Miltary College of Signals<br/>Department of Software Engineering</div></html>");
        heading.setBounds(100, 0, 500, 250);
        heading.setFont(new Font("serif", Font.BOLD|Font.ITALIC, 32));
        heading.setForeground(Color.RED);
        add(heading);

         // Second heading
        JLabel heading_ = new JLabel("<html><div style='text-align: center;'>Student Management System</div></html>");
        heading_.setBounds(120, 100, 500, 200);
        heading_.setFont(new Font("sansserif", Font.BOLD, 34));
        heading_.setForeground(Color.BLUE);
        add(heading_);

        // Developer name
        JLabel name = new JLabel("<html><div style='text-align: center;'>Developed By:<br/>MUHAMMAD AHMAD SULTAN</div></html>");
        name.setBounds(140, 230, 500, 80);
        name.setFont(new Font("Tahoma", Font.BOLD|Font.ITALIC, 28));
        name.setForeground(Color.BLACK);
        add(name);

        // Developer picture
        ImageIcon devPic = new ImageIcon(ClassLoader.getSystemResource("icons/myPic.png"));
        Image devPicScaled = devPic.getImage().getScaledInstance(220, 220, Image.SCALE_DEFAULT);
        ImageIcon devPicIcon = new ImageIcon(devPicScaled);
        JLabel devPicLabel = new JLabel(devPicIcon);
        devPicLabel.setBounds(250, 320, 220, 220);
        add(devPicLabel);
```

```
        // CMS ID Number
        JLabel rollno = new JLabel("<html><div style='text-align: center;'>CMS ID # : 408709</div></html>");
        rollno.setBounds(250, 520, 500, 80);
        rollno.setFont(new Font("Tahoma", Font.BOLD|Font.ITALIC, 22));
        rollno.setForeground(Color.DARK_GRAY);
        add(rollno);
        // Batch
        JLabel batch = new JLabel("<html><div style='text-align: center;'> Batch: BESE-28 (C) </div></html>");
        batch.setBounds(250, 550, 500, 80);
        batch.setFont(new Font("Tahoma", Font.BOLD|Font.ITALIC, 22));
        batch.setForeground(Color. ORANGE);
        add(batch);
        // Contact details
        JLabel contact = new JLabel("<html><div style='text-align: center;'>Contact Info <br/>Email :
m.ahmadsultan123mas@gmail.com<br/>Phone :+92 306 1611301</div></html>");
        contact.setBounds(140, 600, 500, 100);
        contact.setFont(new Font("Tahoma", Font.ITALIC, 22));
        contact.setForeground(Color.BLACK);
        add(contact);


        setLayout(null);
        setVisible(true);
    }
    public static void main(String[] args) {
        new About();
    }
}
```

- **OUTPUT (SCREENSHOT) FOR ABOUT DEV WINDOW**

➢ PROGRAM CODE FOR EXIT WINDOW



```
package college.management.system;

/**
 *
 * @author Muhammad  Ahmad Sultan
 */

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class Project extends JFrame implements ActionListener {

    Project() {
        setSize(1300, 700);

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/Nust.png"));
        Image i2 = i1.getImage().getScaledInstance(1300, 700, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
        JLabel image = new JLabel(i3);
        add(image);

      JMenuBar mb = new JMenuBar();
      mb.setBackground(Color.LIGHT_GRAY);

        // New Information
        JMenu newInformation = new JMenu("New Info");
        newInformation.setForeground(Color.BLUE);
        newInformation.setFont(new Font("sansserif", Font.BOLD, 16));
        mb.add(newInformation);

        JMenuItem facultyInfo = new JMenuItem("New Faculty Information");
```

```
facultyInfo.setBackground(Color.WHITE);
facultyInfo.addActionListener(this);
facultyInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(facultyInfo);

JMenuItem studentInfo = new JMenuItem("New Student Information");
studentInfo.setBackground(Color.WHITE);
studentInfo.addActionListener(this);
studentInfo.setFont(new Font("sansserif", Font.PLAIN, 16));
newInformation.add(studentInfo);

// Details
JMenu details = new JMenu("View Details");
details.setForeground(Color.BLACK);
details.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(details);

JMenuItem facultydetails = new JMenuItem("View Faculty Details");
facultydetails.setBackground(Color.WHITE);
facultydetails.addActionListener(this);
facultydetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(facultydetails);

JMenuItem studentdetails = new JMenuItem("View Student Details");
studentdetails.setBackground(Color.WHITE);
studentdetails.addActionListener(this);
studentdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
details.add(studentdetails);

// Leave
JMenu leave = new JMenu("Apply Leave");
leave.setForeground(Color.BLUE);
leave.setFont(new Font("sansserif", Font.BOLD, 16));
```

```
mb.add(leave);

JMenuItem facultyleave = new JMenuItem("Faculty Leave");
facultyleave.setBackground(Color.WHITE);
facultyleave.addActionListener(this);
facultyleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(facultyleave);

JMenuItem studentleave = new JMenuItem("Student Leave");
studentleave.setBackground(Color.WHITE);
studentleave.addActionListener(this);
studentleave.setFont(new Font("sansserif", Font.PLAIN, 16));
leave.add(studentleave);

// Leave Details
JMenu leaveDetails = new JMenu("Leave Details");
leaveDetails.setForeground(Color.BLACK);
leaveDetails.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(leaveDetails);

JMenuItem facultyleavedetails = new JMenuItem("Faculty Leave Details");
facultyleavedetails.setBackground(Color.WHITE);
facultyleavedetails.addActionListener(this);
facultyleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(facultyleavedetails);

JMenuItem studentleavedetails = new JMenuItem("Student Leave Details");
studentleavedetails.setBackground(Color.WHITE);
studentleavedetails.addActionListener(this);
studentleavedetails.setFont(new Font("sansserif", Font.PLAIN, 16));
leaveDetails.add(studentleavedetails);

// Exams
```

```
JMenu exam = new JMenu("Exams Details");
exam.setForeground(Color.BLUE);
exam.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(exam);

JMenuItem examinationdetails = new JMenuItem("Examination Results");
examinationdetails.setBackground(Color.WHITE);
examinationdetails.addActionListener(this);
examinationdetails.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(examinationdetails);

JMenuItem entermarks = new JMenuItem("Enter Marks");
entermarks.setBackground(Color.WHITE);
entermarks.addActionListener(this);
entermarks.setFont(new Font("sansserif", Font.PLAIN, 16));
exam.add(entermarks);

// UpdateInfo
JMenu updateInfo = new JMenu("Update Details");
updateInfo.setForeground(Color.BLACK);
updateInfo.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(updateInfo);

JMenuItem updatefacultyinfo = new JMenuItem("Update Faculty Details");
updatefacultyinfo.setBackground(Color.WHITE);
updatefacultyinfo.addActionListener(this);
updatefacultyinfo.setFont(new Font("sansserif", Font.PLAIN, 16));
updateInfo.add(updatefacultyinfo);

JMenuItem updatestudentinfo = new JMenuItem("Update Student Details");
updatestudentinfo.setBackground(Color.WHITE);
updatestudentinfo.addActionListener(this);
updatestudentinfo .setFont(new Font("sansserif", Font.PLAIN, 16));
```

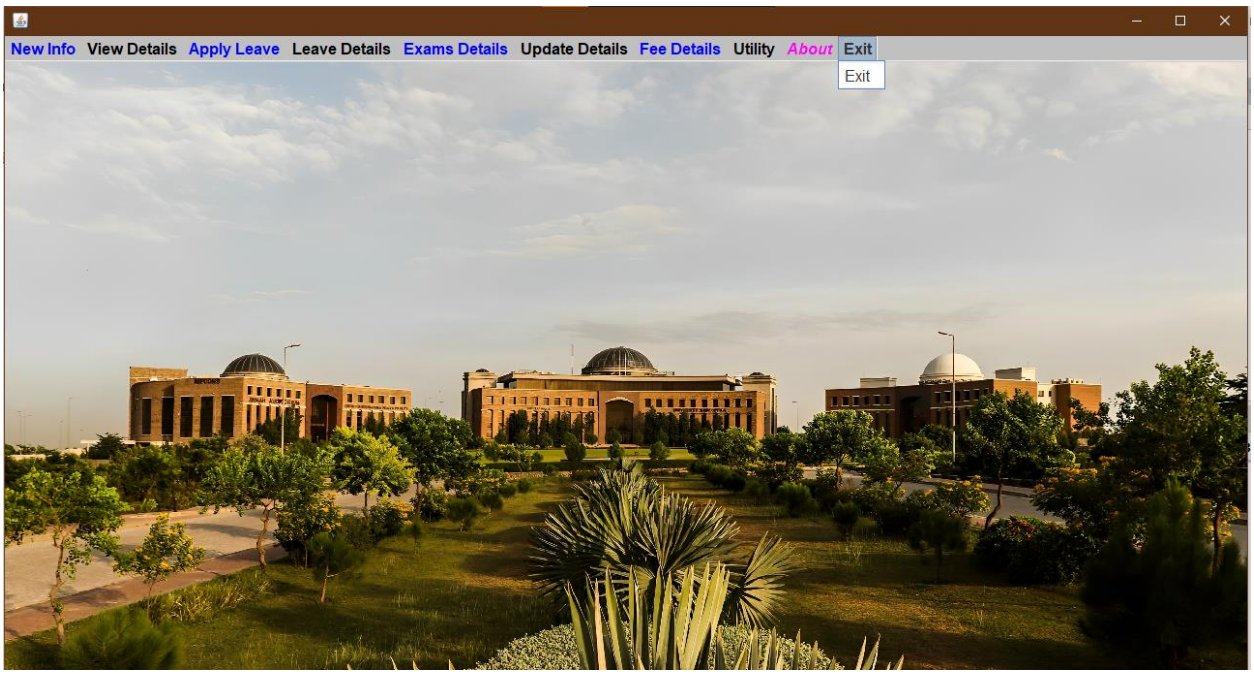
```
updateInfo.add(updatestudentinfo);

// fee
JMenu fee = new JMenu("Fee Details");
fee.setForeground(Color.BLUE);
fee.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(fee);

JMenuItem feestructure = new JMenuItem("Fee Structure");
feestructure.setBackground(Color.WHITE);
feestructure.addActionListener(this);
feestructure .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feestructure);

JMenuItem feeform = new JMenuItem("Student Fee Form");
feeform.setBackground(Color.WHITE);
feeform.addActionListener(this);
feeform .setFont(new Font("sansserif", Font.PLAIN, 16));
fee.add(feeform);

// Utility
JMenu utility = new JMenu("Utility");
utility.setForeground(Color.BLACK);
utility.setFont(new Font("sansserif", Font.BOLD, 16));
mb.add(utility);

JMenuItem notepad = new JMenuItem("Notepad");
notepad.setBackground(Color.WHITE);
notepad.addActionListener(this);
notepad .setFont(new Font("sansserif", Font.PLAIN, 16));
utility.add(notepad);

JMenuItem calc = new JMenuItem("Calculator");
```

```
    calc.setBackground(Color.WHITE);
    calc.addActionListener(this);
    calc.setFont(new Font("sansserif", Font.PLAIN, 16));
    utility.add(calc);

    // about
    JMenu about = new JMenu("About");
    about.setForeground(Color.MAGENTA);
    about.setFont(new Font("sansserif", Font.BOLD|Font.ITALIC, 16));
    mb.add(about);

    JMenuItem ab = new JMenuItem("About");
    ab.setBackground(Color.WHITE);
    ab.addActionListener(this);
    ab.setFont(new Font("sansserif", Font.PLAIN, 16));
    about.add(ab);

    // exit
    JMenu exit = new JMenu("Exit");
    exit.setForeground(Color.RED);
    exit.setFont(new Font("sansserif", Font.BOLD, 16));
    mb.add(exit);

    JMenuItem ex = new JMenuItem("Exit");
    ex.setBackground(Color.WHITE);
    ex.addActionListener(this);
    ex.setFont(new Font("sansserif", Font.PLAIN, 16));
    exit.add(ex);

    setJMenuBar(mb);

    setVisible(true);
}
```

```
public void actionPerformed(ActionEvent ae) {
    String msg = ae.getActionCommand();
    if (msg.equals("Exit")) {
        setVisible(false);
    } else if (msg.equals("Calculator")) {
        try {
            Runtime.getRuntime().exec("calc.exe");
        } catch (Exception e) {
        }
    } else if (msg.equals("Notepad")) {
        try {
            Runtime.getRuntime().exec("notepad.exe");
        } catch (Exception e) {
        }
    } else if (msg.equals("New Faculty Information")) {
        new AddTeacher();
    } else if (msg.equals("New Student Information")) {
        new AddStudent();
    } else if (msg.equals("View Faculty Details")) {
        new TeacherDetails();
    } else if (msg.equals("View Student Details")) {
        new StudentDetails();
    } else if (msg.equals("Faculty Leave")) {
        new TeacherLeave();
    } else if (msg.equals("Student Leave")) {
        new StudentLeave();
    } else if (msg.equals("Faculty Leave Details")) {
        new TeacherLeaveDetails();
    } else if (msg.equals("Student Leave Details")) {
        new StudentLeaveDetails();
    } else if (msg.equals("Update Faculty Details")) {
        new UpdateTeacher();
```

```
        } else if (msg.equals("Update Student Details")) {
            new UpdateStudent();
        } else if (msg.equals("Enter Marks")) {
            new EnterMarks();
        } else if (msg.equals("Examination Results")) {
            new ExaminationDetails();
        } else if (msg.equals("Fee Structure")) {
            new FeeStructure();
        } else if (msg.equals("About")) {
            new About();
        } else if (msg.equals("Student Fee Form")) {
            new StudentFeeForm();
        }
    }
    public static void main(String[] args) {
        new Project();
    }
}
```

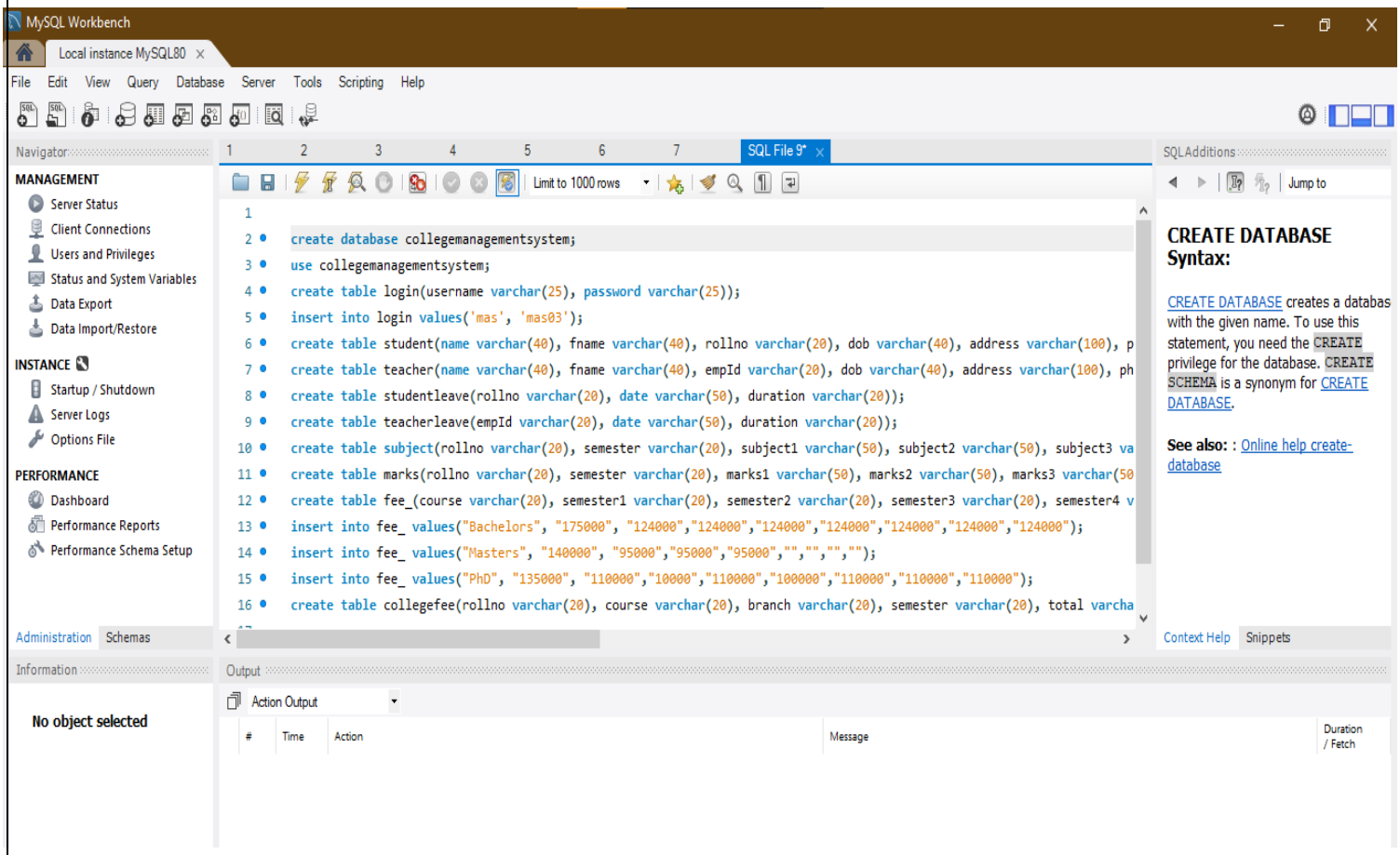
- **OUTPUT (SCREENSHOT) FOR EXIT WINDOW**



➢ PROGRAM CODE FOR DATABASE MYSQL CONNECTIVITYWINDOW

```
package college.management.system;


/**
 *
 * @author Muhammad Ahmad Sultan
 */


import java.sql.*;


public class dbConnectivity {


   Connection c;
   Statement s;


   dbConnectivity () {
      try {
         Class.forName("com.mysql.cj.jdbc.Driver");
         c =
DriverManager.getConnection("jdbc:mysql://localhost:3306/collegemanagementsystem","root","mcs@
123789");
         s = c.createStatement();


      } catch (Exception e) {
         e.printStackTrace();
      }
   }
}
```

- **OUTPUT (SCREENSHOT) FOR DATABASE MYSQL CONNECTIVITY WINDOW**



- **Signature of the student:** _____

- **Name of the Instructor:** LE Muhammad Asif

- **Signature of the Instructor :** _____

THE END