# JAVA SWINGS BASED- STUDENT ASSIGNMENTS TRACKER - SQL CONNECTIVITY USING JDBC

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Report

Submitted in partial fulfillment of the Requirements for the award of the Degree of

# **BACHELOR OF ENGINEERING**

IN

# INFORMATION TECHNOLOGY

By

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# **BONAFIDE CERTIFICATE**

This is to certify that this project report titled 'STUDENT ASSIGNMENTS TRACKER' is a project work of Mr. Ande Varun Kumar Reddy bearing roll no. 1602-19-737-121 who carried out the project under my supervision in the IV semester for the academic year 2020- 2021.

Signature Signature

Internal Examiner External Examiner

## **ABSTRACT:**

Student Assignments Tracker is a console based application which allows

students to view all their assignments, their due dates, any remarks, whether due date is finished or not for particular assignment and their scores also faculty can assign assignments to particular section students with points, instructions and due dates and also give scores and feedback.

# **REQUIREMENT ANALYSIS:**

#### **List of Tables:**

- Login
- Students
- Faculty
- Assignments
- Views
- Manages

## List of attributes with their domain types:

# Login

- user\_id varchar2(50)
- Password varchar2(50)
- Usercategory varchar2(50)

#### Students

- Name varchar2(40)
- Rollnumber number(5)
- Division varchar2(4)
- Dept\_id number(5)
- User\_id varchar2(50)

## Faculty

- Staff\_id number(5)
- Name varchar2(50)

- Subject varchar2(20)
- Dept\_id number(5)

# Assignments

- Assign\_name varchar2(30)
- Points number(5)
- Feedback varchar2(100)
- Rollnumber number(5)

#### Views

- Rollnumber number(5)
- Due\_date date
- Division varchar2(5)
- Assign\_name varchar2(50)

# Manages

- Section varchar2(10)
- Staff\_id number(20)
- Assign\_name varchar2(50)
- Subject varchar2(50)

# AIM AND PRIORITY OF THE PROJECT

To create a Java GUI based student assignments tracker which takes the values like: user id, password for login and stores details of all students, faculty and student assignments their marks in those and staff can assign assignments to students. These values are to be updated in the database using JDBC connectivity.

## ARCHITECTURE AND TECHNOLOGY

**Software used:** Java Eclipse, Oracle 11g Database, Java SE version 13, SQL\*Plus.

# **Java SWINGS:**

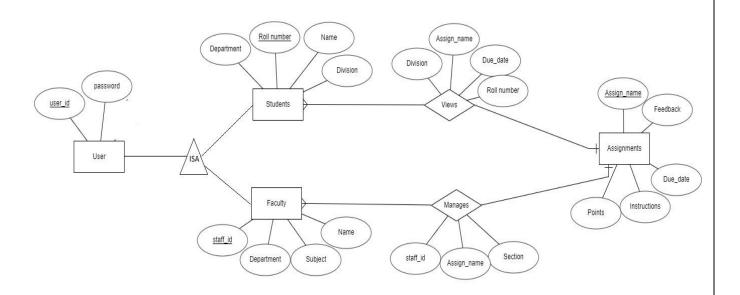
**Java SWINGS** is an API to develop GUI or window-based applications in java. Java SWING components are platform-independent. It is lightweight. The javax.swing package provides classes for SWING API such as JTextField, JLabel, JTextArea, JRadioButton, JCheckBox, JChoice, JList etc.

# **SQL**:

Structure Query Language(SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's **Relational** model of database. Today almost all RDBMS (MySql, Oracle, Infomix, Sybase, MS Access) use **SQL** as the standard database query language. SQL is used to perform all types of data operations in RDBMS.

## **DESIGN:**

#### **ER DIAGRAM:**



# **Mapping Cardinality and participation constraints:**

Every user who login into application need user id and password. So, login has full participation to users. A user can only be either student or faculty so it is one to one relationship. One student can view any number of assignments so it is one to many relationship. One faculty can give any number of assignments so it is also one to many relationship.

#### **DDL COMMANDS:**

```
SQL> create table Login(user_id varchar2(50) PRIMARY KEY,
2 password varchar2(50) NOT NULL);

Table created.

SQL> desc Login;
Name Null? Type

USER_ID NOT NULL VARCHAR2(50)
PASSWORD NOT NULL VARCHAR2(50)
```

```
SQL> alter table login add(usercategory varchar2(50));
Table altered.
SQL> desc login;
                                        Null? Type
USER ID
                                        NOT NULL VARCHAR2(50)
PASSWORD
                                        NOT NULL VARCHAR2(50)
USERCATEGORY
                                                 VARCHAR2(50)
SQL> create table students(name varchar2(40) NOT NULL,
 2 rollnumber number(5) PRIMARY KEY,
  3 division varchar2(4) NOT NULL,
 4 dept id number(5) NOT NULL);
Table created.
SQL> alter table students add FOREIGN KEY(user_id) references Login;
Table altered.
SQL> desc students;
                                         Null? Type
 Name
 NAME
                                         NOT NULL VARCHAR2(40)
 ROLLNUMBER
                                         NOT NULL NUMBER(5)
 DIVISION
                                         NOT NULL VARCHAR2(4)
 DEPT_ID
                                         NOT NULL NUMBER(5)
 USER ID
                                                  VARCHAR2(50)
SQL> desc students;
                                           Null?
 Name
                                                   Type
 NAME
                                           NOT NULL VARCHAR2(40)
 ROLLNUMBER
                                           NOT NULL NUMBER(5)
                                           NOT NULL VARCHAR2(4)
 DIVISION
                                           NOT NULL NUMBER(5)
 DEPT ID
SQL> create table faculty(staff id number(5) PRIMARY KEY,
 2 name varchar2(50),
SQL> create table faculty(staff_id number(5) PRIMARY KEY,
 2 name varchar2(50) NOT NULL,
  3 subject varchar2(20) NOT NULL,
  4 dept_id number(5) NOT NULL);
Table created.
```

```
SQL> desc faculty;
 Name
                                            Null?
                                                      Type
                                            NOT NULL NUMBER(5)
 STAFF_ID
 NAME
                                            NOT NULL VARCHAR2(50)
 SUBJECT
                                            NOT NULL VARCHAR2(20)
 DEPT ID
                                            NOT NULL NUMBER(5)
SQL> create table Assignments(assign_name varchar2(30) PRIMARY KEY,
  2 points number(5) NOT NULL,
  3 due date date,
  4 feedback varchar2(100),
  5 instructions varchar2(500));
Table created.
SQL> alter table assignments drop column due_date;
Table altered.
SQL> alter table assignments drop column instructions;
Table altered.
SQL> alter table assignments add(rollnumber number(5));
Table altered.
SQL> alter table assignments add FOREIGN KEY(rollnumber) references students;
Table altered.
SQL> desc assignments;
Name
                                         Null?
                                                  Type
ASSIGN NAME
                                         NOT NULL VARCHAR2(50)
POINTS
                                         NOT NULL NUMBER(5)
 FEEDBACK
                                                  VARCHAR2(100)
                                                  NUMBER(5)
 ROLLNUMBER
```

```
SQL> create table manages(section varchar2(3) NOT NULL,
2 staff_id number(5));

Table created.

SQL> alter table manages add FOREIGN KEY(staff_id) references faculty;

Table altered.
```

```
SQL> create table views(rollnumber number(5),
   2 due_date date,
   3 division varchar2(5),
   4 assign_name varchar2(50));
Table created.
```

```
SQL> alter table views add FOREIGN KEY(assign_name) references Assignments;

Table altered.

SQL> desc views;
Name Null? Type

ROLLNUMBER NUMBER(5)
DUE_DATE DATE
DIVISION VARCHAR2(5)
ASSIGN_NAME VARCHAR2(50)
```

```
SQL> select * from tab;
                               TABTYPE CLUSTERID
TNAME
ASSIGNMENTS
                               TABLE
FACULTY
                               TABLE
LOGIN
                               TABLE
                               TABLE
MANAGES
STUDENTS
                               TABLE
VIEWS
                               TABLE
6 rows selected.
```

SQL> alter table views add FOREIGN KEY(rollnumber) references students;

#### **DML COMMANDS:**

```
SQL> insert into login values('akshith1098','ghij001','student');

1 row created.

SQL> insert into login values('vikram199','a9bnjk','staff');

1 row created.
```

```
SQL> insert into students values('&name','&rollnumber','&division','&dept_id','&userid');
Enter value for name: varun
Enter value for rollnumber: 121
Enter value for division: B
Enter value for dept id: 737
Enter value for userid: 121_varun
old 1: insert into students values('&name','&rollnumber','&division','&dept_id','&userid')
new 1: insert into students values('varun','121','B','737','121_varun')
1 row created.
SQL> /
Enter value for name: charan
Enter value for rollnumber: 006
Enter value for division: A
Enter value for dept id: 733
Enter value for userid: 006 charan
old 1: insert into students values('&name','&rollnumber','&division','&dept_id','&userid')
new 1: insert into students values('charan','006','A','733','006_charan')
l row created.
```

```
SQL> select * from Login;
USER_ID
PASSWORD
121_varun
abc3456
006_charan
uhg0912
pps 51
jik1786
USER ID
PASSWORD
dbms 21
fdghnb875
SQL> select * from students;
NAME
                                      ROLLNUMBER DIVI DEPT_ID
USER_ID
varun
                                             121 B
                                                             737
121_varun
charan
                                                6 A
                                                              733
006_charan
```

```
SQL> insert into faculty values('&staff_id','&name','&subject','&dept_id');
Enter value for staff id: 73751
Enter value for name: Ravi
Enter value for subject: PPS
Enter value for dept_id: 737

    insert into faculty values('&staff id','&name','&subject','&dept id')

      1: insert into faculty values('73751', 'Ravi', 'PPS', '737')
1 row created.
SQL> /
Enter value for staff id: 73321
Enter value for name: Vijay
Enter value for subject: DBMS
Enter value for dept_id: 733
old 1: insert into faculty values('&staff_id','&name','&subject','&dept_id')
      1: insert into faculty values('73321','Vijay','DBMS','733')
1 row created.
SQL> select * from faculty;
 STAFF ID NAME
SUBJECT
                         DEPT_ID
    73751 Ravi
PPS
                             737
     73321 Vijay
DBMS
                             733
SQL> insert into assignments values('&assign_name',&points,'&feedback','&rollnumber');
Enter value for assign_name: ppsassignment
Enter value for points: 4
Enter value for feedback: good
Enter value for rollnumber: 102
    1: insert into assignments values('&assign_name',&points,'&feedback','&rollnumber')
new 1: insert into assignments values('ppsassignment',4,'good','102')
1 row created.
```

```
SQL> insert into views values(121,TO_DATE('2021/05/20 23:59:59', 'yyyy/mm/dd hh24:mi:ss'),'B','PPS_ASSIGNMENT1');

1 row created.

SQL> insert into views values(006,TO_DATE('2021/05/15 21:02:44', 'yyyy/mm/dd hh24:mi:ss'),'A','DBMS_ASSIGNMENT1');

1 row created.

SQL> select * from views;

ROLLNUMBER DUE_DATE DIVIS ASSIGN_NAME

121 20-MAY-21 B PPS_ASSIGNMENT1
6 15-MAY-21 A DBMS_ASSIGNMENT1
```

```
SQL> insert into manages values('&section',&staff_id,'&assign_name','&subject');
Enter value for section: B
Enter value for staff_id: 73701
Enter value for assign_name: dbmsassignment1
Enter value for subject: dbms
old 1: insert into manages values('&section',&staff_id,'&assign_name','&subject')
new 1: insert into manages values('B',73701,'dbmsassignment1','dbms')

1 row created.
```

## **IMPLEMENTATION**

# Front end programs and its connectivity

**Java Database Connectivity (JDBC)** is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is a Java-based data access technology used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database and is oriented towards relational databases.

The connection to the database can be performed using Java programming (JDBC API) as:

Thus, the connection from Java to Oracle database is performed and therefore, can be used for updating tables in the database directly.

# LOGINPAGE (MAIN METHOD):

```
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;
import Sat.*;
import java.sql.*;
import javax.sql.*;
import javax.swing.*;
import javax.swing.border.EmptyBorder;
import javax.swing.event.MenuEvent;
import javax.swing.event.MenuListener;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
public class loginpage extends JFrame
      private static final long serialVersionUID = 1L;
      private JFrame StudentAssignmentsTracker;
      private JTextField txtuserid;
      private JPasswordField txtpwd;
      private JPanel contentPane;
      static String s;
      static String str1;
      public static void main(String[] args)
             EventQueue.invokeLater(new Runnable()
                    public void run()
                    {
                          try
                          {
                                 loginpage window = new loginpage();
                                 window.StudentAssignmentsTracker.setVisible(true);
                          catch (Exception e)
                                 e.printStackTrace();
                          }
                    }
             });
      public loginpage() {
             initialize();
      JButton btnLogin;
      private void initialize()
      {
             StudentAssignmentsTracker = new JFrame();
             StudentAssignmentsTracker.setTitle("Student Assignments Tracker");
             StudentAssignmentsTracker.setBounds(150, 150, 400, 300);
```

```
StudentAssignmentsTracker.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
             StudentAssignmentsTracker.getContentPane().setLayout(null);
             JMenuBar menuBar = new JMenuBar();
             StudentAssignmentsTracker.setJMenuBar(menuBar);
             JMenu mnNewMenu = new JMenu("Login");
             mnNewMenu.addMenuListener(new MenuListener() {
                    public void menuCanceled(MenuEvent e) {
                    public void menuDeselected(MenuEvent e) {
                    public void menuSelected(MenuEvent e) {
                          btnLogin.setVisible(true);
                    }
             });
             menuBar.add(mnNewMenu);
             txtuserid = new JTextField();
             txtuserid.setBounds(198, 47, 96, 20);
             StudentAssignmentsTracker.getContentPane().add(txtuserid);
             txtuserid.setColumns(10);
             JLabel lblNewLabel = new JLabel("User ID");
             lblNewLabel.setBounds(76, 50, 84, 14);
             StudentAssignmentsTracker.getContentPane().add(lblNewLabel);
             JLabel lblNewLabel 1 = new JLabel("Password");
             lblNewLabel 1.setBounds(76, 88, 84, 14);
             StudentAssignmentsTracker.getContentPane().add(lblNewLabel_1);
             btnLogin = new JButton("Login");
             //contentPane.setBackground(Color.cyan);
             btnLogin.addActionListener(new ActionListener()
             {
                    public void actionPerformed(ActionEvent e) {
                          boolean isValidUser=false;
                          try
                          {
                                 DBconnection connect = new DBconnection();
                                 Connection con = connect.getConnection();
                                 Statement stmt=con.createStatement();
                                 str1=txtuserid.getText();
                                 String txt = "select usercategory from login where user_id =
'"+txtuserid.getText()+"' and password ='"+new String(txtpwd.getPassword())+"'";
                                 ResultSet rs=stmt.executeQuery(txt);
                                 if(rs.next())
                                 {
                                        s=rs.getString("usercategory");
                                        isValidUser = true;
                                 rs.close();
                          catch(Exception ex) {
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```

```
System.out.println(ex);
                          if(isValidUser) {
                                 UserInterface h=new UserInterface();
                          }
                          else
                          {
                                 JOptionPane.showMessageDialog(null, "INVALID LOGIN");
                          }
                    }
             });
             btnLogin.setBounds(150, 160, 89, 23);
             StudentAssignmentsTracker.getContentPane().add(btnLogin);
             txtpwd = new JPasswordField();
             txtpwd.setBounds(198, 85, 96, 20);
             StudentAssignmentsTracker.getContentPane().add(txtpwd);
      }
}
IOGIN:
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.FlowLayout;
```

```
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.*;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenuItem;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextArea;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
public class login
{
      private static final long <u>serialVersionUID</u> = 1L;
```

```
private JButton insertButton,deleteButton,viewButton;
      private JPanel p1,p2,p3,p;
      private JLabel lbluser_id,lblpassword,lblusertype;
      private JTextField txtuser_id,txtpassword,txtusertype;
      private List loginIDList;
      Connection con;
      ResultSet rs;
      Statement statement;
      private JFrame frame;
      private JMenuItem insert,delete,update,view;
      public login(JPanel p,JFrame frame,JMenuItem insert,JMenuItem delete,JMenuItem
update, JMenuItem view)
      {
             try
             {
                   Class.forName("oracle.jdbc.driver.OracleDriver");
             catch (Exception e)
                    System.err.println("Unable to find and load driver");
                    System.exit(1);
             connectToDB();
             this.frame=frame;
             this.insert=insert;
             this.delete=delete;
             this.update=update;
             this.view=view;
             lbluser_id=new JLabel("User_id");
             lblpassword=new JLabel("Password");
             lblusertype=new JLabel("User Category");
             txtuser id=new JTextField(50);
             txtpassword=new JPasswordField(50);
             txtusertype=new JTextField(50);
             this.p=p;
      public void connectToDB()
    {
             try {
             Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","it19737121","vasavi");
             statement=con.createStatement();
             statement.executeUpdate("commit");
             catch (SQLException connectException)
               System.out.println(connectException.getMessage());
               System.out.println(connectException.getSQLState());
               System.out.println(connectException.getErrorCode());
               System.exit(1);
    }
      private void displaySQLErrors(SQLException e)
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```

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```
JOptionPane.showMessageDialog(p,"\nSQLException: " + e.getMessage() +
                    " + e.getSQLState() + "\n"+"VendorError: " + e.getErrorCode() + "\n");
"\n"+"SQLState:
      public void loadLogins() {
            try {
                   loginIDList.removeAll();
                   rs=statement.executeQuery("select user_id from login");
                   while(rs.next()) {
                          loginIDList.add(rs.getString("user_id"));
             catch(SQLException e) {
                   displaySQLErrors(e);
      public void buildGUI() {
             insertButton=new JButton("Submit");
             insert.addActionListener(new ActionListener() {
                   @Override
                   public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          txtuser id.setText(null);
                          txtpassword.setText(null);
                          txtusertype.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(3,2));
                           p1.add(lbluser_id);
                           p1.add(txtuser_id);
                           p1.add(lblpassword);
                           p1.add(txtpassword);
                           p1.add(lblusertype);
                           p1.add(txtusertype);
                           p3=new JPanel(new FlowLayout());
                           p3.add(insertButton);
                           p3.setBackground(Color.blue);
                           p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  loginIDList=new List(10);
                                  loadLogins();
```

```
Student Assignments tracker
                                  p2.add(loginIDList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                            p.add(p1);
                            p.add(p3);
                            p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                              insertButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try {
                                 String query="INSERT INTO login
VALUES('"+txtuser id.getText()+"','"+txtpassword.getText()+"','"+txtusertype.getText()+"')";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nInserted "+i+" rows
succesfully");
                                 loadLogins();
                                 System.out.println("done");
                          }
                          catch(SQLException insertException){
                                 displaySQLErrors(insertException);
                          }
                           }
                                 });
                    }
                    });
             delete.addActionListener(new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                           // TODO Auto-generated method stub
                          deleteButton=new JButton("Delete");
                          txtuser id.setText(null);
                          txtpassword.setText(null);
                          txtusertype.setText(null);
                           p.removeAll();
                          frame.invalidate();
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```

```
Student Assignments tracker
                           frame.validate();
                           frame.repaint();
                           p1=new JPanel();
                            p1.setLayout(new GridLayout(3,2));
                            p1.add(lbluser_id);
                            p1.add(txtuser_id);
                            p1.add(lblpassword);
                            p1.add(txtpassword);
                            p1.add(lblusertype);
                            p1.add(txtusertype);
                            p3=new JPanel(new FlowLayout());
                            p3.add(deleteButton);
                            p3.setBackground(Color.blue);
                            p3.setBounds(200,280,75,35);
                            p1.setBackground(Color.orange);
                            p1.setBounds(115,80,300,200);
                            p2 = new JPanel(new FlowLayout());
                                  loginIDList=new List(10);
                                  loadLogins();
                                  p2.add(loginIDList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                            p.add(p1);
                            p.add(p3);
                            p.add(p2);
                            p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                            loginIDList.addItemListener(new ItemListener()
                                 {
                                        public void itemStateChanged(ItemEvent e)
                                        {
                                               try
                                               {
                                                      rs=statement.executeQuery("select * from
login");
                                                      while (rs.next())
(rs.getString("user_id").equals(loginIDList.getSelectedItem()))
                                                            break;
                                                      if (!rs.isAfterLast())
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```

```
Student Assignments tracker
                                                     {
      txtuser_id.setText(rs.getString("user_id"));
      txtpassword.setText(rs.getString("password"));
      txtusertype.setText(rs.getString("usercategory"));
                                                     }
                                              catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
                                 });
                           deleteButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 String password=JOptionPane.showInputDialog(p,"Enter the
password");
                                 txtpassword.setText(password);
                                 int a=JOptionPane.showConfirmDialog(p,"Are you sure want to
delete:");
                                 if(a==JOptionPane.YES_OPTION){
                                 String query="DELETE FROM LOGIN WHERE
USER_ID='"+txtuser_id.getText()+"'AND PASSWORD='"+txtpassword.getText()+"'";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nDeleted "+i+" rows
succesfully");
                                 loadLogins();
                          }
                          catch(SQLException deleteException){
                                 displaySQLErrors(deleteException);
                          }
                           }
                                 });
                    });
             update.addActionListener(new ActionListener() {
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```

```
@Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          JButton updateButton = new JButton("Modify");
                          txtuser id.setText(null);
                          txtpassword.setText(null);
                          txtusertype.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                           p1=new JPanel();
                           p1.setLayout(new GridLayout(3,2));
                           p1.add(lbluser id);
                           p1.add(txtuser id);
                           p1.add(lblpassword);
                           p1.add(txtpassword);
                            p1.add(lblusertype);
                           p1.add(txtusertype);
                           p3=new JPanel(new FlowLayout());
                           p3.add(updateButton);
                           //p1.add(txtf1);
                           p3.setBackground(Color.blue);
                            p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange) ;
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  loginIDList=new List(10);
                                  //loadLogins();
                                  if(loginpage.s.equals("student") ||
loginpage.s.equals("staff"))
                                 {
                                                            loginIDList.removeAll();
                                                            loginIDList.add(loginpage.str1);
                                  if(loginpage.s.equals("admin"))
                                         loadLogins();
                                  p2.add(loginIDList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                            p.add(p3);
```

```
Student Assignments tracker
                            p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                           loginIDList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                                     rs=statement.executeQuery("select * from
login");
                                                     while (rs.next())
                                                            if
(rs.getString("user_id").equals(loginIDList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtuser_id.setText(rs.getString("user_id"));
      txtpassword.setText(rs.getString("password"));
      txtusertype.setText(rs.getString("usercategory"));
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
                                 });
                           updateButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try
                                 if(loginpage.s.equals("admin"))
                                               loadLogins();
password1=JOptionPane.showInputDialog(p,"Enter the new password");
                                               txtpassword.setText(password1);
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```

```
String query="update login set
password='"+password1+"' where user_id='"+txtuser_id.getText()+"' ";
                                               int i=statement.executeUpdate(query);
                                              JOptionPane.showMessageDialog(p,"\nUpdated
"+i+" rows succesfully");
                                              loadLogins();
                                 if(loginpage.s.equals("student") ||
loginpage.s.equals("staff"))
                                 {
                                                     loginIDList.removeAll();
                                                     loginIDList.add(loginpage.str1);
                                                     String
password2=JOptionPane.showInputDialog(p,"Enter the new password");
                                                     txtpassword.setText(password2);
                                                      String query="update login set
password='"+password2+"' where user_id='"+txtuser_id.getText()+"' ";
                                                      int i=statement.executeUpdate(query);
      JOptionPane.showMessageDiaLog(p,"\nUpdated "+i+" rows succesfully");
                          }
                          catch(SQLException updateException){
                                 displaySQLErrors(updateException);
                          }
                           }
                                 });
                    });
             view.addActionListener(new ActionListener(){
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          Label view1=new Label("Login View");
                          //view1.setAlignment(Label.CENTER);
                          Font myFont = new Font("Serif", Font.BOLD, 50);
```

```
Student Assignments tracker
                                                f.add(sp);
                                                f.setSize(400, 400);
                                                f.setVisible(true);
                                            }
                                 });
                    }
             });
      }
}
STUDENTS:
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.FlowLayout;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.*;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenuItem;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextArea;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
public class Students
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```

System.out.println(connectException.getMessage());
System.out.println(connectException.getSQLState());

```
System.out.println(connectException.getErrorCode());
               System.exit(1);
   }
      private void displaySQLErrors(SQLException e)
             JOptionPane.showMessageDialog(p,"\nSQLException: " + e.getMessage() +
"\n"+"SQLState:
                    " + e.getSQLState() + "\n"+"VendorError: " + e.getErrorCode() + "\n");
      public void loadrollno() {
             try {
                   RollnoList.removeAll();
                   rs=statement.executeQuery("select rollnumber from students");
                   while(rs.next()) {
                          RollnoList.add(rs.getString("rollnumber"));
             catch(SQLException e) {
                   displaySQLErrors(e);
             }
      }
      public void buildGUI()
             //if(loginpage.s=="staff" || loginpage.s=="admin")
             insertButton=new JButton("Submit");
             insert.addActionListener(new ActionListener() {
                   @Override
                   public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          txtuser id.setText(null);
                          txtname.setText(null);
                          txtrollno.setText(null);
                          txtdiv.setText(null);
                          txtdept_id.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(3,2));
                           p1.add(lbluser id);
                           p1.add(txtuser_id);
                           p1.add(lblname);
                           p1.add(txtname);
                           p1.add(lblrollno);
                           p1.add(txtrollno);
                           p1.add(lbldiv);
                           p1.add(txtdiv);
                           p1.add(lbldept_id);
                           p1.add(txtdept_id);
```

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```
delete.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent arg0) {
             // TODO Auto-generated method stub
             deleteButton=new JButton("Delete");
             txtuser_id.setText(null);
             txtname.setText(null);
             txtrollno.setText(null);
             txtdiv.setText(null);
             txtdept_id.setText(null);
             p.removeAll();
             frame.invalidate();
             frame.validate();
             frame.repaint();
             p1=new JPanel();
              p1.setLayout(new GridLayout(3,2));
              p1.add(lbluser_id);
              p1.add(txtuser_id);
              p1.add(lblname);
              p1.add(txtname);
              p1.add(lblrollno);
              p1.add(txtrollno);
              p1.add(lbldiv);
              p1.add(txtdiv);
              p1.add(lbldept id);
              p1.add(txtdept_id);
              p3=new JPanel(new FlowLayout());
              p3.add(deleteButton);
              p3.setBackground(Color.blue);
              p3.setBounds(200,280,75,35);
              p1.setBackground(Color.orange);
              p1.setBounds(115,80,300,200);
              p2 = new JPanel(new FlowLayout());
                     RollnoList=new List(10);
                     loadrollno();
                     p2.add(RollnoList);
                     p2.setBackground(Color.cyan) ;
                     p2.setBounds(125,320,300,180);
              p.add(p1);
              p.add(p3);
              p.add(p2);
              p.setLayout(new BorderLayout());
                    frame.add(p);
                    frame.setSize(800,800);
```

```
frame.validate();
                              RollnoList.addItemListener(new ItemListener()
                                 {
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                               {
                                                     rs=statement.executeQuery("select * from
students");
                                                     while (rs.next())
(rs.getString("ROLLNUMBER").equals(RollnoList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtuser_id.setText(rs.getString("user_id"));
      txtname.setText(rs.getString("name"));
      txtrollno.setText(rs.getString("rollnumber"));
      txtdiv.setText(rs.getString("division"));
      txtdept_id.setText(rs.getString("dept_id"));
                                                     }
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                               }
                                        }
                                 });
                           deleteButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try {
                                 int a=JOptionPane.showConfirmDialog(p,"Are you sure want to
delete:");
                                 if(a==JOptionPane.YES OPTION){
                                 String query="DELETE FROM STUDENTS WHERE
ROLLNUMBER="+RollnoList.getSelectedItem();
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nDeleted "+i+" rows
succesfully");
                                 loadrollno();
                                 }
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```

```
catch(SQLException deleteException){
                   displaySQLErrors(deleteException);
             }
              }
                   });
      });
update.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent arg0) {
             // TODO Auto-generated method stub
             JButton updateButton = new JButton("Modify");
             txtname.setText(null);
             txtrollno.setText(null);
             txtdiv.setText(null);
             txtdept_id.setText(null);
             txtuser_id.setText(null);
             p.removeAll();
             frame.invalidate();
             frame.validate();
             frame.repaint();
             p1=new JPanel();
              p1.setLayout(new GridLayout(3,2));
              p1.add(lblname);
              p1.add(txtname);
              p1.add(lblrollno);
              p1.add(txtrollno);
              p1.add(lbldiv);
              p1.add(txtdiv);
              p1.add(lbldept_id);
              p1.add(txtdept_id);
              p1.add(lbluser id);
              p1.add(txtuser_id);
              p3=new JPanel(new FlowLayout());
              p3.add(updateButton);
              p3.setBackground(Color.blue);
              p3.setBounds(200,280,75,35);
              p1.setBackground(Color.orange);
              p1.setBounds(115,80,300,200);
```

```
Student Assignments tracker
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  RollnoList=new List(10);
                                  loadrollno();
                                  p2.add(RollnoList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                            p.add(p1);
                           p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                           RollnoList.addItemListener(new ItemListener()
                                 {
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                               {
                                                     rs=statement.executeQuery("select * from
students");
                                                     while (rs.next())
(rs.getString("Rollnumber").equals(RollnoList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtuser_id.setText(rs.getString("user_id"));
      txtname.setText(rs.getString("name"));
      txtrollno.setText(rs.getString("rollnumber"));
      txtdiv.setText(rs.getString("division"));
      txtdept_id.setText(rs.getString("dept_id"));
                                                     }
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                               }
                                        }
                                 });
```

```
Student Assignments tracker
                           updateButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try {
                                 loadrollno();
                                  String query="update students set
name='"+txtname.getText()+"',division='"+txtdiv.getText()+"',dept_id="+txtdept_id.getText()+"
WHERE rollnumber="+txtrollno.getText()+" ";
                                  int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nUpdated "+i+" rows
succesfully");
                                 loadrollno();
                          }
                          catch(SQLException updateException){
                                 displaySQLErrors(updateException);
                          }
                           }
                                 });
                    });
             //}
             view.addActionListener(new ActionListener(){
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          Label view1=new Label("Students view");
                           //view1.setAlignment(Label.CENTER);
                          Font myFont = new Font("Serif", Font.BOLD, 50);
                          view1.setFont((myFont));
                          viewButton=new JButton("View");
                           p1=new JPanel();
                          p2=new JPanel();
                          p1.add(view1);
                          p2.add(viewButton);p1.setBackground(Color.cyan)
;p2.setBackground(Color.blue) ;
                           p.add(p1);p.add(p2);
                           p.setLayout(new FlowLayout());
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```

```
Student Assignments tracker
                          p.setBounds(500,800,300,300);
                          frame.add(p);
                          frame.setSize(800,800);
                          frame.validate();
                           viewButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                                         JFrame f;
                                            JTable j;
                                                f = new JFrame();
                                                f.setTitle("Students details");
                                                DefaultTableModel model = new
DefaultTableModel();
                                                j = new JTable(model);
                                               model.addColumn("name");
                                               model.addColumn("rollnumber");
                                               model.addColumn("division");
                                               model.addColumn("dept_id");
                                               model.addColumn("user_id");
                                               try {
                                                            rs=statement.executeQuery("select
* from students");
                                                            while(rs.next()) {
                                                                    model.addRow(new
Object[]{rs.getString("name"),rs.getString("rollnumber"),rs.getString("division"),rs.getString
g("dept_id"),rs.getString("user_id")});
                                                     catch(SQLException viewException) {
                                                            displaySQLErrors(viewException);
                                                     j.setEnabled(false);
                                                j.setBounds(30, 40, 150, 150);
                                                JScrollPane sp = new JScrollPane(j);
                                                f.add(sp);
                                                f.setSize(400, 400);
                                                f.setVisible(true);
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```

```
Student Assignments tracker
                                            }
                                 });
                    }
             });
      }
}
FACULTY:
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.FlowLayout;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.*;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenuItem;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextArea;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
public class Faculty {
      private static final long <u>serialVersionUID</u> = 1L;
      private JButton insertButton,deleteButton,viewButton;
      private JPanel p1,p2,p3,p;
      private JLabel lbluser_id,lblname,lblstaff_id,lblsubject,lbldept_id;
      private JTextField txtuser_id,txtname,txtstaff_id,txtsubject,txtdept_id;
      private List staffidList;
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```

```
Connection con;
      ResultSet rs;
      Statement statement;
      private JFrame frame;
      private JMenuItem insert,delete,update,view;
      public Faculty(JPanel p,JFrame frame,JMenuItem insert,JMenuItem delete,JMenuItem
update, JMenuItem view)
             try
             {
                    Class.forName("oracle.jdbc.driver.OracleDriver");
             catch (Exception e)
                    System.err.println("Unable to find and load driver");
                    System.exit(1);
             connectToDB();
             this.frame=frame;
             this.insert=insert;
             this.delete=delete;
             this.update=update;
             this.view=view;
             lbluser id=new JLabel("User id");
             lblname=new JLabel("Name");
             lblstaff_id=new JLabel("Staff ID");
             lblsubject=new JLabel("Subject");
             lbldept_id=new JLabel("Dept_id");
             txtuser id=new JTextField(50);
             txtname=new JTextField(50);
             txtstaff_id=new JTextField(10);
             txtsubject=new JTextField(10);
             txtdept_id=new JTextField(10);
             this.p=p;
      public void connectToDB()
    {
             try {
             Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","it19737121","vasavi");
             statement=con.createStatement();
             statement.executeUpdate("commit");
             catch (SQLException connectException)
               System.out.println(connectException.getMessage());
               System.out.println(connectException.getSQLState());
               System.out.println(connectException.getErrorCode());
               System.exit(1);
    }
      private void displaySQLErrors(SQLException e)
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```

```
JOptionPane.showMessageDialog(p,"\nSQLException: " + e.getMessage() +
                    " + e.getSQLState() + "\n"+"VendorError: " + e.getErrorCode() + "\n");
"\n"+"SQLState:
      public void loadstaffid() {
            try {
                   staffidList.removeAll();
                   rs=statement.executeQuery("select staff_id from faculty");
                   while(rs.next()) {
                          staffidList.add(rs.getString("staff_id"));
             catch(SQLException e) {
                   displaySQLErrors(e);
             }
      }
      public void buildGUI() {
             insertButton=new JButton("Submit");
             insert.addActionListener(new ActionListener() {
                   @Override
                   public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          txtuser_id.setText(null);
                          txtname.setText(null);
                          txtstaff id.setText(null);
                          txtsubject.setText(null);
                          txtdept id.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(3,2));
                           p1.add(lbluser id);
                           p1.add(txtuser_id);
                           p1.add(lblname);
                           p1.add(txtname);
                           p1.add(lblstaff id);
                           p1.add(txtstaff id);
                           p1.add(lblsubject);
                           p1.add(txtsubject);
                           p1.add(lbldept_id);
                           p1.add(txtdept id);
                           p3=new JPanel(new FlowLayout());
                           p3.add(insertButton);
                           p3.setBackground(Color.blue);
                           p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
```

```
// p2.add(txtf1);
                                  staffidList=new List(10);
                                  loadstaffid();
                                  p2.add(staffidList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                              insertButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 String query="INSERT INTO FACULTY
VALUES("+txtstaff_id.getText()+",'"+txtname.getText()+"','"+txtsubject.getText()+"',"+txtdept
_id.getText()+",'"+txtuser_id.getText()+"')";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nInserted "+i+" rows
succesfully");
                                 loadstaffid();
                                 System.out.println("Done");
                          catch(SQLException insertException){
                                 displaySQLErrors(insertException);
                          }
                           }
                                 });
                    }
                    });
             delete.addActionListener(new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          deleteButton=new JButton("Delete");
                          txtuser_id.setText(null);
                          txtname.setText(null);
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```

```
txtstaff id.setText(null);
                          txtsubject.setText(null);
                          txtdept_id.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                           frame.repaint();
                           p1=new JPanel();
                           p1.setLayout(new GridLayout(3,2));
                           p1.add(lbluser_id);
                           p1.add(txtuser id);
                           p1.add(lblname);
                           p1.add(txtname);
                           p1.add(lblstaff_id);
                           p1.add(txtstaff_id);
                           p1.add(lblsubject);
                           p1.add(txtsubject);
                           p1.add(lbldept id);
                           p1.add(txtdept id);
                           p3=new JPanel(new FlowLayout());
                           p3.add(deleteButton);
                            p3.setBackground(Color.blue);
                           p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                  staffidList=new List(10);
                                  loadstaffid();
                                  p2.add(staffidList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                           p.add(p2);
                            p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                              staffidList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                        {
                                               try
                                               {
                                                     rs=statement.executeQuery("select * from
faculty");
                                                     while (rs.next())
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Varun Kumar Reddy
```

```
if
(rs.getString("STAFF_ID").equals(staffidList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtuser_id.setText(rs.getString("user_id"));
      txtname.setText(rs.getString("name"));
      txtsubject.setText(rs.getString("subject"));
      txtstaff_id.setText(rs.getString("staff_id"));
      txtdept id.setText(rs.getString("dept id"));
                                                     }
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
                                 });
                           deleteButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 String staffid=JOptionPane.showInputDialog(p,"Enter the
staff id");
                                 txtstaff_id.setText(staffid);
                                 int a=JOptionPane.showConfirmDialog(p, "Are you sure want to
delete:");
                                 if(a==JOptionPane.YES OPTION){
                                 String query="DELETE FROM FACULTY WHERE
STAFF_ID="+txtstaff_id.getText()+"";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nDeleted "+i+" rows
succesfully");
                                 loadstaffid();
                                 }
                          catch(SQLException deleteException){
                                 displaySQLErrors(deleteException);
                          }
1602-19-737-121
```

```
}
                    });
      }
      });
update.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent arg0) {
             // TODO Auto-generated method stub
             JButton updateButton = new JButton("Modify");
             txtuser_id.setText(null);
             txtname.setText(null);
             txtstaff id.setText(null);
             txtsubject.setText(null);
             txtdept id.setText(null);
             p.removeAll();
             frame.invalidate();
             frame.validate();
             frame.repaint();
             p1=new JPanel();
              p1.setLayout(new GridLayout(3,2));
              p1.add(lbluser_id);
              p1.add(txtuser id);
              p1.add(lblname);
              p1.add(txtname);
              p1.add(lblstaff id);
              p1.add(txtstaff_id);
              p1.add(lblsubject);
              p1.add(txtsubject);
              p1.add(lbldept id);
              p1.add(txtdept_id);
              p3=new JPanel(new FlowLayout());
              p3.add(updateButton);
              //p1.add(txtf1);
              p3.setBackground(Color.blue);
              p3.setBounds(200,280,75,35);
              p1.setBackground(Color.orange);
              p1.setBounds(115,80,300,200);
              p2 = new JPanel(new FlowLayout());
                    // p2.add(txtf1);
                     staffidList=new List(10);
                     loadstaffid();
                     p2.add(staffidList);
                     p2.setBackground(Color.cyan) ;
                     p2.setBounds(125,320,300,180);
```

```
Student Assignments tracker
                            p.add(p1);
                            p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                            staffidList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                                     rs=statement.executeQuery("select * from
faculty");
                                                     while (rs.next())
(rs.getString("staff_id").equals(staffidList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtuser_id.setText(rs.getString("user_id"));
      txtname.setText(rs.getString("name"));
      txtsubject.setText(rs.getString("subject"));
      txtstaff_id.setText(rs.getString("staff_id"));
      txtdept_id.setText(rs.getString("dept_id"));
                                                     }
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                               }
                                        }
                                 });
                            updateButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try {
                                 loadstaffid();
```

```
Student Assignments tracker
                                  String query="update faculty set
name='"+txtname.getText()+"',subject='"+txtsubject.getText()+"',dept_id="+txtdept_id.getText(
)+" where staff_id="+txtstaff_id.getText()+" ";
                                  int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nUpdated "+i+" rows
succesfully");
                                 loadstaffid();
                          catch(SQLException updateException){
                                 displaySQLErrors(updateException);
                          }
                           }
                                 });
                    }
                    });
             view.addActionListener(new ActionListener(){
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          Label view1=new Label("Faculty view");
                           //view1.setAlignment(Label.CENTER);
                          Font myFont = new Font("Serif",Font.BOLD,50);
                          view1.setFont((myFont));
                          viewButton=new JButton("View");
                          p1=new JPanel();
                          p2=new JPanel();
                          p1.add(view1);
                          p2.add(viewButton);p1.setBackground(Color.cyan)
;p2.setBackground(Color.blue) ;
                          p.add(p1);p.add(p2);
                           p.setLayout(new FlowLayout());
                          p.setBounds(500,800,300,300);
                          frame.add(p);
                          frame.setSize(800,800);
                          frame.validate();
                           viewButton.addActionListener(new ActionListener() {
                                  @Override
```

```
Student Assignments tracker
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                                         JFrame f;
                                            JTable j;
                                                f = new JFrame();
                                                f.setTitle("Faculty details");
                                                DefaultTableModel model = new
DefaultTableModel();
                                                j = new JTable(model);
                                               model.addColumn("staff_id");
                                               model.addColumn("name");
                                               model.addColumn("subject");
                                               model.addColumn("dept_id");
                                               model.addColumn("user_id");
                                               try {
                                                            rs=statement.executeQuery("select
* from faculty");
                                                            while(rs.next()) {
                                                                    model.addRow(new
Object[]{rs.getString("staff_id"),rs.getString("name"),rs.getString("subject"),rs.getString("
dept_id"),rs.getString("user_id")});
                                                     catch(SQLException viewException) {
                                                            displaySQLErrors(viewException);
                                                     j.setEnabled(false);
                                                j.setBounds(30, 40, 150, 150);
                                                JScrollPane sp = new JScrollPane(j);
                                                f.add(sp);
                                                f.setSize(400, 400);
                                                f.setVisible(true);
                                            }
```

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```
{
             try
             {
                    Class.forName("oracle.jdbc.driver.OracleDriver");
             catch (Exception e)
                    System.err.println("Unable to find and load driver");
                    System.exit(1);
             connectToDB();
             this.frame=frame;
             this.insert=insert;
             this.delete=delete;
             this.update=update;
             this.view=view;
             lblrno=new JLabel("Roll Number");
             lblaname=new JLabel("Assignment Name");
             lblpts=new JLabel("Points");
             lblfeedback=new JLabel("Feedback");
             txtrno=new JTextField(10);
             txtaname=new JTextField(50);
             txtpts=new JTextField(50);
             txtfeedback=new JTextField(50);
             txtrno=new JTextField(10);
             this.p=p;
      public void connectToDB()
    {
             try {
             Connection
con=DriverManager.qetConnection("jdbc:oracle:thin:@localhost:1521:xe","it19737121","vasavi");
             statement=con.createStatement();
             statement.executeUpdate("commit");
             catch (SQLException connectException)
               System.out.println(connectException.getMessage());
               System.out.println(connectException.getSQLState());
               System.out.println(connectException.getErrorCode());
               System.exit(1);
    }
      private void displaySQLErrors(SQLException e)
             JOptionPane.showMessageDialog(p,"\nSQLException: " + e.getMessage() +
"\n"+"SQLState:
                    " + e.getSQLState() + "\n"+"VendorError: " + e.getErrorCode() + "\n");
      public void loadaname() {
             try {
                    anameList.removeAll();
                    rs=statement.executeQuery("select assign_name from assignments");
                    while(rs.next()) {
                          anameList.add(rs.getString("assign_name"));
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```

```
catch(SQLException e) {
             displaySQLErrors(e);
      }
}
public void buildGUI() {
      insertButton=new JButton("Submit");
      insert.addActionListener(new ActionListener() {
             @Override
             public void actionPerformed(ActionEvent arg0) {
                    // TODO Auto-generated method stub
                    txtaname.setText(null);
                    txtpts.setText(null);
                    txtfeedback.setText(null);
                    txtrno.setText(null);
                    p.removeAll();
                    frame.invalidate();
                    frame.validate();
                    frame.repaint();
                    p1=new JPanel();
                     p1.setLayout(new GridLayout(4,1));
                     p1.add(lblaname);
                     p1.add(txtaname);
                     p1.add(lblpts);
                     p1.add(txtpts);
                     p1.add(lblfeedback);
                     p1.add(txtfeedback);
                     p1.add(lblrno);
                     p1.add(txtrno);
                     p3=new JPanel(new FlowLayout());
                     p3.add(insertButton);
                     p3.setBackground(Color.blue);
                     p3.setBounds(200,280,75,35);
                     p1.setBackground(Color.orange);
                     p1.setBounds(115,80,300,200);
                     p2 = new JPanel(new FlowLayout());
                          // p2.add(txtf1);
                           anameList=new List(10);
                            loadaname();
                            p2.add(anameList);
                            p2.setBackground(Color.cyan) ;
                            p2.setBounds(125,320,300,180);
                     p.add(p1);
                     p.add(p3);
                     p.add(p2);
```

```
Student Assignments tracker
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                              insertButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 String query="INSERT INTO ASSIGNMENTS
VALUES('"+txtaname.getText()+"',"+txtpts.getText()+",'"+txtfeedback.getText()+"',"+txtrno.get
Text()+")";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nInserted "+i+" rows
succesfully");
                                 loadaname();
                                 System.out.println("Done");
                          }
                          catch(SQLException insertException){
                                 displaySQLErrors(insertException);
                          }
                           }
                                 });
                    }
                    });
             delete.addActionListener(new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                           // TODO Auto-generated method stub
                          deleteButton=new JButton("Delete");
                          txtaname.setText(null);
                          txtpts.setText(null);
                          txtfeedback.setText(null);
                          txtrno.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(4,1));
                           p1.add(lblaname);
                           p1.add(txtaname);
                           p1.add(lblpts);
                            p1.add(txtpts);
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```

```
Student Assignments tracker
                            p1.add(lblfeedback);
                           p1.add(txtfeedback);
                           p1.add(lblrno);
                           p1.add(txtrno);
                           p3=new JPanel(new FlowLayout());
                            p3.add(deleteButton);
                           p3.setBackground(Color.blue);
                            p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                  anameList=new List(10);
                                  loadaname();
                                  p2.add(anameList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                            p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                             anameList.addItemListener(new ItemListener()
                                 {
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                                     rs=statement.executeQuery("select * from
assignments");
                                                     while (rs.next())
(rs.getString("assign_name").equals(anameList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtaname.setText(rs.getString("assign_name"));
      txtpts.setText(rs.getString("points"));
      txtfeedback.setText(rs.getString("feedback"));
      txtrno.setText(rs.getString("rollnumber"));
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```

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```
txtrno.setText(null);
                           p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(4,1));
                           p1.add(lblaname);
                           p1.add(txtaname);
                           p1.add(lblpts);
                           p1.add(txtpts);
                           p1.add(lblfeedback);
                           p1.add(txtfeedback);
                           p1.add(lblrno);
                           p1.add(txtrno);
                           p3=new JPanel(new FlowLayout());
                           p3.add(updateButton);
                           //p1.add(txtf1);
                           p3.setBackground(Color.blue);
                           p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  anameList=new List(10);
                                  loadaname();
                                  p2.add(anameList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                           anameList.addItemListener(new ItemListener()
                                 {
                                        public void itemStateChanged(ItemEvent e)
                                        {
                                               try
                                               {
                                                     rs=statement.executeQuery("select * from
assignments");
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```

```
}
                           }
                                 });
                    }
                    });
             view.addActionListener(new ActionListener(){
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          Label view1=new Label("Assignments view");
                           //view1.setAlignment(Label.CENTER);
                          Font myFont = new Font("Serif", Font.BOLD, 50);
                          view1.setFont((myFont));
                          viewButton=new JButton("View");
                           p1=new JPanel();
                          p2=new JPanel();
                          p1.add(view1);
                          p2.add(viewButton);p1.setBackground(Color.cyan)
;p2.setBackground(Color.blue) ;
                          p.add(p1);p.add(p2);
                           p.setLayout(new FlowLayout());
                           p.setBounds(500,800,300,300);
                          frame.add(p);
                           frame.setSize(800,800);
                          frame.validate();
                           viewButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                                         JFrame f;
                                            JTable j;
                                                f = new JFrame();
                                                f.setTitle("Assignment details");
                                                DefaultTableModel model = new
DefaultTableModel();
                                                j = new JTable(model);
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```

```
Student Assignments tracker
                                               model.addColumn("assign_name");
                                               model.addColumn("points");
                                               model.addColumn("feedback");
                                               model.addColumn("rollnumber");
                                               try {
                                                            rs=statement.executeQuery("select
* from assignments");
                                                            while(rs.next()) {
                                                                    model.addRow(new
Object[]{rs.getString("assign_name"),rs.getString("points"),rs.getString("feedback"),rs.getSt
ring("rollnumber")});
                                                      catch(SQLException viewException) {
                                                            displaySQLErrors(viewException);
                                                      j.setEnabled(false);
                                                j.setBounds(30, 40, 150, 150);
                                                JScrollPane sp = new JScrollPane(j);
                                                f.add(sp);
                                                f.setSize(400, 400);
                                                f.setVisible(true);
                                            }
                                 });
                    }
             });
      }
}
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```

## MANAGES:

```
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.FlowLayout;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.*;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenuItem;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextArea;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
public class manages{
      private static final long <u>serialVersionUID</u> = 1L;
      private JButton insertButton,deleteButton,viewButton;
      private JPanel p1,p2,p3,p;
      private JLabel lblsection,lblstaff_id,lblaname,lblsub;
      private JTextField txtsection,txtstaff id,txtaname,txtsub;
      private List staff idList;
      Connection con;
      ResultSet rs;
      Statement statement;
      private JFrame frame;
      private JMenuItem insert,delete,update,view;
      public manages(JPanel p,JFrame frame,JMenuItem insert,JMenuItem delete,JMenuItem
update, JMenuItem view)
             try
             {
                    Class.forName("oracle.jdbc.driver.OracleDriver");
             catch (Exception e)
                    System.err.println("Unable to find and load driver");
                    System.exit(1);
             connectToDB();
             this.frame=frame;
             this.insert=insert;
```

```
// TODO Auto-generated method stub
txtsection.setText(null);
txtstaff_id.setText(null);
txtsub.setText(null);
txtaname.setText(null);
p.removeAll();
frame.invalidate();
frame.validate();
frame.repaint();
p1=new JPanel();
p1.setLayout(new GridLayout(4,2));
p1.add(lblsection);
p1.add(txtsection);
p1.add(lblstaff_id);
p1.add(txtstaff_id);
p1.add(lblsub);
p1.add(txtsub);
p1.add(lblaname);
p1.add(txtaname);
p3=new JPanel(new FlowLayout());
p3.add(insertButton);
 p3.setBackground(Color.blue);
p3.setBounds(200,280,75,35);
p1.setBackground(Color.orange);
p1.setBounds(115,80,300,200);
p2 = new JPanel(new FlowLayout());
      // p2.add(txtf1);
       staff_idList=new List(10);
       loadstaff_id();
       p2.add(staff idList);
       p2.setBackground(Color.cyan) ;
       p2.setBounds(125,320,300,180);
p.add(p1);
p.add(p3);
p.add(p2);
p.setLayout(new BorderLayout());
      frame.add(p);
      frame.setSize(800,800);
      frame.validate();
   insertButton.addActionListener(new ActionListener() {
             public void actionPerformed(ActionEvent e) {
                    // TODO Auto-generated method stub
try {
```

```
Student Assignments tracker
                                  staff idList=new List(10);
                                  loadstaff_id();
                                  p2.add(staff_idList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                            p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                             staff idList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                                     rs=statement.executeQuery("select * from
manages");
                                                     while (rs.next())
                                                            if
(rs.getString("staff_id").equals(staff_idList.getSelectedItem()))
                                                            break;
                                                     if (!rs.isAfterLast())
      txtaname.setText(rs.getString("section"));
      txtstaff_id.setText(rs.getString("staff_id"));
      txtsection.setText(rs.getString("assign_name"));
      txtsub.setText(rs.getString("subject"));
                                                     }
                                               }
                                               catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
                                 });
                           deleteButton.addActionListener(new ActionListener() {
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```

```
@Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 int a=JOptionPane.showConfirmDialog(p,"Are you sure want to
delete:");
                                 if(a==JOptionPane.YES_OPTION){
                                 String query="DELETE FROM MANAGES WHERE
staff_id="+staff_idList.getSelectedItem();
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nDeleted "+i+" rows
succesfully");
                                 loadstaff_id();
                          catch(SQLException deleteException){
                                 displaySQLErrors(deleteException);
                          }
                           }
                                 });
                    });
             update.addActionListener(new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          JButton updateButton = new JButton("Modify");
                          txtsection.setText(null);
                          txtstaff id.setText(null);
                          txtsub.setText(null);
                          txtaname.setText(null);
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          p1=new JPanel();
                           p1.setLayout(new GridLayout(4,2));
                           p1.add(lblsection);
                           p1.add(txtsection);
                           p1.add(lblstaff_id);
                           p1.add(txtstaff id);
                           p1.add(lblsub);
                           p1.add(txtsub);
                           p1.add(lblaname);
                           p1.add(txtaname);
                           p3=new JPanel(new FlowLayout());
```

```
Student Assignments tracker
                           p3.add(updateButton);
                           //p1.add(txtf1);
                           p3.setBackground(Color.blue);
                           p3.setBounds(200,280,75,35);
                           p1.setBackground(Color.orange);
                           p1.setBounds(115,80,300,200);
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  staff_idList=new List(10);
                                  loadstaff_id();
                                  p2.add(staff_idList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                           p.add(p2);
                               staff_idList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                              try
                                                     rs=statement.executeQuery("select * from
manages");
                                                     while (rs.next())
                                                            if
(rs.getString("staff_id").equals(staff_idList.getSelectedItem()))
                                                     if (!rs.isAfterLast())
      txtsection.setText(rs.getString("section"));
      txtstaff_id.setText(rs.getString("staff_id"));
      txtaname.setText(rs.getString("assign_name"));
      txtsub.setText(rs.getString("subject"));
                                                     }
                                              catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
```

```
Student Assignments tracker
                                 });
                              p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                           updateButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                          try {
                                 loadstaff id();
                                  String query="update manages set
section='"+txtsection.getText()+"',assign_name='"+txtaname.getText()+"',subject='"+txtsub.get
Text()+"' WHERE staff_id="+txtstaff_id.getText()+" ";
                                  int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nUpdated "+i+" rows
succesfully");
                                 loadstaff_id();
                          }
                          catch(SQLException updateException){
                                 displaySQLErrors(updateException);
                          }
                           }
                                 });
                    }
                    });
             view.addActionListener(new ActionListener(){
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          p.removeAll();
                          frame.invalidate();
                          frame.validate();
                          frame.repaint();
                          Label view1=new Label("Manages view");
                           //view1.setAlignment(Label.CENTER);
                          Font myFont = new Font("Serif",Font.BOLD,50);
                          view1.setFont((myFont));
                          viewButton=new JButton("View");
                           p1=new JPanel();
                           p2=new JPanel();
                          p1.add(view1);
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```

```
p2.add(viewButton);p1.setBackground(Color.cyan)
;p2.setBackground(Color.blue) ;
                           p.add(p1);p.add(p2);
                           p.setLayout(new FlowLayout());
                           p.setBounds(500,800,300,300);
                          frame.add(p);
                           frame.setSize(800,800);
                          frame.validate();
                           viewButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                               // TODO Auto-generated method stub
                                         JFrame f;
                                            JTable j;
                                                f = new JFrame();
                                                f.setTitle("Assignments");
                                                DefaultTableModel model = new
DefaultTableModel();
                                                j = new JTable(model);
                                               model.addColumn("section");
                                               model.addColumn("staff_id");
                                               model.addColumn("assign name");
                                              model.addColumn("subject");
                                               try {
                                                            rs=statement.executeQuery("select
* from manages");
                                                            while(rs.next()) {
                                                                    model.addRow(new
Object[]{rs.getString("section"),rs.getString("staff_id"),rs.getString("assign_name"),rs.getS
tring("subject")});
                                                     catch(SQLException viewException) {
                                                            displaySQLErrors(viewException);
                                                     j.setEnabled(false);
                                                j.setBounds(30, 40, 150, 150);
                                                JScrollPane sp = new JScrollPane(j);
                                                f.add(sp);
                                                f.setSize(400, 400);
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Varun Kumar Reddy
```

```
Student Assignments tracker
                                                f.setVisible(true);
                                            }
                                 });
                    }
             });
      }
}
VIEWS:
package Sat;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.FlowLayout;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.*;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenuItem;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextArea;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
public class Views {
      private static final long serialVersionUID = 1L;
      private JButton insertButton,deleteButton,viewButton;
      private JPanel p1,p2,p3,p;
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```

```
private JLabel lblrno,lbldue,lbldiv,lblaname;
      private JTextField txtrno,txtdue,txtdiv,txtaname;
      private List rnoList;
      Connection con;
      ResultSet rs;
      Statement statement;
      private JFrame frame;
      private JMenuItem insert,delete,update,view;
      public Views(JPanel p,JFrame frame,JMenuItem insert,JMenuItem delete,JMenuItem
update, JMenuItem view)
      {
             try
             {
                    Class.forName("oracle.jdbc.driver.OracleDriver");
             catch (Exception e)
                    System.err.println("Unable to find and load driver");
                    System.exit(1);
             connectToDB();
             this.frame=frame;
             this.insert=insert;
             this.delete=delete;
             this.update=update;
             this.view=view;
             lblrno=new JLabel("Roll Number");
             lbldue=new JLabel("Due Date");
             lbldiv=new JLabel("Division");
             lblaname=new JLabel("Assignment Name");
             txtrno=new JTextField(5);
             txtdue=new JTextField(12);
             txtdiv=new JTextField(3);
             txtaname=new JTextField(20);
             this.p=p;
      public void connectToDB()
    {
             try {
             Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","it19737121","vasavi");
             statement=con.createStatement();
             statement.executeUpdate("commit");
             catch (SQLException connectException)
               System.out.println(connectException.getMessage());
               System.out.println(connectException.getSQLState());
               System.out.println(connectException.getErrorCode());
               System.exit(1);
    }
      private void displaySQLErrors(SQLException e)
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```

```
public void loadrno()
{
      try
      {
             rnoList.removeAll();
             rs=statement.executeQuery("select rollnumber from views");
             while(rs.next())
             {
                    rnoList.add(rs.getString("rollnumber"));
             }
      catch(SQLException e) {
             displaySQLErrors(e);
      }
}
public void buildGUI() {
      insertButton=new JButton("Submit");
      insert.addActionListener(new ActionListener() {
             @Override
             public void actionPerformed(ActionEvent arg0) {
                    // TODO Auto-generated method stub
                    txtrno.setText(null);
                    txtdue.setText(null);
                    txtdiv.setText(null);
                    txtaname.setText(null);
                    p.removeAll();
                    frame.invalidate();
                    frame.validate();
                    frame.repaint();
                    p1=new JPanel();
                     p1.setLayout(new GridLayout(4,2));
                     p1.add(lblrno);
                     p1.add(txtrno);
                     p1.add(lbldue);
                     p1.add(txtdue);
                     p1.add(lbldiv);
                     p1.add(txtdiv);
                     p1.add(lblaname);
                     p1.add(txtaname);
                     p3=new JPanel(new FlowLayout());
                     p3.add(insertButton);
                     p3.setBackground(Color.blue);
                     p3.setBounds(200,280,75,35);
                     p1.setBackground(Color.orange);
                     p1.setBounds(115,80,300,200);
```

```
Student Assignments tracker
                           p2 = new JPanel(new FlowLayout());
                                 // p2.add(txtf1);
                                  rnoList=new List(10);
                                  loadrno();
                                  p2.add(rnoList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                           p.add(p1);
                           p.add(p3);
                           p.add(p2);
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                              insertButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                          try {
                                 String query="INSERT INTO VIEWS
VALUES("+txtrno.getText()+",'"+txtdue.getText()+"','"+txtdiv.getText()+"','"+txtaname.getText
()+"')";
                                 int i=statement.executeUpdate(query);
                                 JOptionPane.showMessageDialog(p,"\nInserted "+i+" rows
succesfully");
                                 loadrno();
                                 System.out.println("Done");
                          catch(SQLException insertException){
                                 displaySQLErrors(insertException);
                          }
                           }
                                 });
                    }
                    });
             delete.addActionListener(new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent arg0) {
                          // TODO Auto-generated method stub
                          deleteButton=new JButton("Delete");
                          txtrno.setText(null);
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```

```
txtdue.setText(null);
                           txtdiv.setText(null);
                           txtaname.setText(null);
                           p.removeAll();
                           frame.invalidate();
                           frame.validate();
                           frame.repaint();
                           p1=new JPanel();
                            p1.setLayout(new GridLayout(4,2));
                            p1.add(lblrno);
                            p1.add(txtrno);
                            p1.add(lbldue);
                            p1.add(txtdue);
                            p1.add(lbldiv);
                            p1.add(txtdiv);
                            p1.add(lblaname);
                            p1.add(txtaname);
                            p3=new JPanel(new FlowLayout());
                            p3.add(deleteButton);
                            p3.setBackground(Color.blue);
                            p3.setBounds(200,280,75,35);
                            p1.setBackground(Color.orange) ;
                            p1.setBounds(115,80,300,200);
                            p2 = new JPanel(new FlowLayout());
                                  rnoList=new List(10);
                                  loadrno();
                                  p2.add(rnoList);
                                  p2.setBackground(Color.cyan) ;
                                  p2.setBounds(125,320,300,180);
                            p.add(p1);
                            p.add(p3);
                            p.add(p2);
                            p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                             rnoList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                        {
                                               try
                                               {
                                                      rs=statement.executeQuery("select * from
views");
                                                      while (rs.next())
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Varun Kumar Reddy
```

```
});
      }
      });
update.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent arg0) {
             // TODO Auto-generated method stub
             JButton updateButton = new JButton("Modify");
             txtrno.setText(null);
             txtdue.setText(null);
             txtdiv.setText(null);
             txtaname.setText(null);
             p.removeAll();
             frame.invalidate();
             frame.validate();
             frame.repaint();
             p1=new JPanel();
              p1.setLayout(new GridLayout(4,2));
              p1.add(lblrno);
              p1.add(txtrno);
              p1.add(lbldue);
              p1.add(txtdue);
              p1.add(lbldiv);
              p1.add(txtdiv);
              p1.add(lblaname);
              p1.add(txtaname);
              p3=new JPanel(new FlowLayout());
              p3.add(updateButton);
              p3.setBackground(Color.blue);
              p3.setBounds(200,280,75,35);
              p1.setBackground(Color.orange);
              p1.setBounds(115,80,300,200);
              p2 = new JPanel(new FlowLayout());
                    // p2.add(txtf1);
                     rnoList=new List(10);
                     loadrno();
                     p2.add(rnoList);
                     p2.setBackground(Color.cyan) ;
                     p2.setBounds(125,320,300,180);
              p.add(p1);
              p.add(p3);
              p.add(p2);
```

```
Student Assignments tracker
                           p.setLayout(new BorderLayout());
                                 frame.add(p);
                                 frame.setSize(800,800);
                                 frame.validate();
                           rnoList.addItemListener(new ItemListener()
                                        public void itemStateChanged(ItemEvent e)
                                               try
                                               {
                                                     rs=statement.executeQuery("select * from
views");
                                                     while (rs.next())
                                                            if
(rs.getString("rollnumber").equals(rnoList.getSelectedItem()))
                                                     if (!rs.isAfterLast())
      txtrno.setText(rs.getString("rollnumber"));
      txtdue.setText(rs.getString("due_date"));
      txtdiv.setText(rs.getString("division"));
      txtaname.setText(rs.getString("assign_name"));
                                                     }
                                              catch (SQLException selectException)
                                                     displaySQLErrors(selectException);
                                        }
                                 });
                           updateButton.addActionListener(new ActionListener() {
                                  @Override
                                        public void actionPerformed(ActionEvent e) {
                                              // TODO Auto-generated method stub
                          try {
                                 loadrno();
                                  String query="update views set
due_date='"+txtdue.getText()+"',division='"+txtdiv.getText()+"',assign_name='"+txtaname.getTe
xt()+"' where rollnumber="+txtrno.getText()+" ";
                                  int i=statement.executeUpdate(query);
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```

JFrame f;

public void actionPerformed(ActionEvent e) {
 // TODO Auto-generated method stub

```
Student Assignments tracker
                                            JTable j;
                                                f = new JFrame();
                                                f.setTitle("Student Assignments details");
                                                DefaultTableModel model = new
DefaultTableModel();
                                                j = new JTable(model);
                                               model.addColumn("rollnumber");
                                               model.addColumn("due_date");
                                               model.addColumn("division");
                                               model.addColumn("assign name");
                                               try {
                                                            rs=statement.executeQuery("select
* from views");
                                                            while(rs.next()) {
                                                                    model.addRow(new
Object[]{rs.getString("rollnumber"),rs.getString("due_date"),rs.getString("division"),rs.getS
tring("assign_name")});
                                                     catch(SQLException viewException) {
                                                            displaySQLErrors(viewException);
                                                     j.setEnabled(false);
                                                j.setBounds(30, 40, 150, 150);
                                                JScrollPane sp = new JScrollPane(j);
                                                f.add(sp);
                                                f.setSize(400, 400);
                                                f.setVisible(true);
                                            }
                                 });
```

```
Student Assignments tracker
                        }
                });
        }
Github links and folder structure:
Link:
Folder structure:
This PC > OS (C:) > javaprograms > Assignment
                                                 Date modified
                                                                                              Size
     Name
                                                                          Type
     .settings
                                                 15-06-2021 17:31
                                                                          File folder
      bin
                                                  15-06-2021 17:41
                                                                          File folder
     src
                                                  15-06-2021 17:32
                                                                          File folder
     .classpath
                                                  15-06-2021 17:41
                                                                          CLASSPATH File
                                                                                                      1 KB
     .project
                                                  15-06-2021 17:31
                                                                          PROJECT File
                                                                                                      1 KB
 This PC > OS (C:) > javaprograms > Assignment > src
      Name
                                                        Date modified
                                                                                                         Size
                                                                                   Type
       Sat
                                                        17-06-2021 19:09
                                                                                   File folder
```

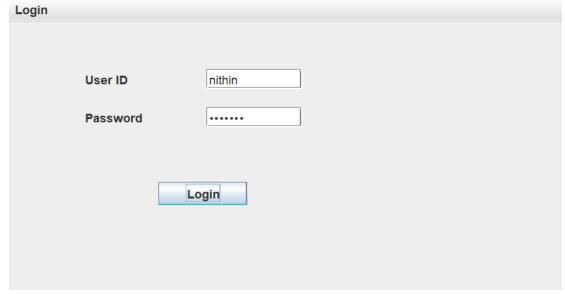
This PC  $\rightarrow$  OS (C:)  $\rightarrow$  javaprograms  $\rightarrow$  Assignment  $\rightarrow$  src  $\rightarrow$  Sat

Name	Date modified	Туре	Size
Assignments	18-06-2021 18:37	JAVA File	13 KB
connecttoDB	16-06-2021 21:45	JAVA File	1 KB
DBconnection	17-06-2021 19:11	JAVA File	1 KB
Faculty	18-06-2021 18:34	JAVA File	14 KB
login	18-06-2021 18:31	JAVA File	14 KB
loginpage	18-06-2021 18:45	JAVA File	4 KB
Main	15-06-2021 17:36	JAVA File	1 KB
manages	18-06-2021 19:33	JAVA File	13 KB
Students	18-06-2021 18:33	JAVA File	14 KB
UserInterface	18-06-2021 19:27	JAVA File	7 KB
Views	18-06-2021 18:39	JAVA File	13 KB

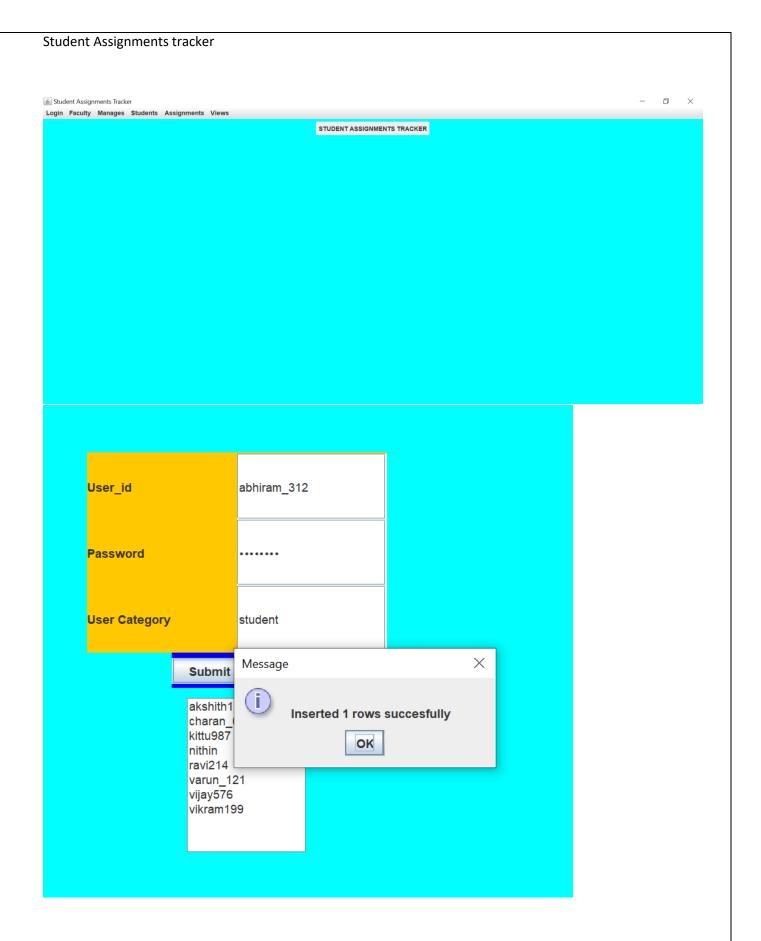
# **TESTING**

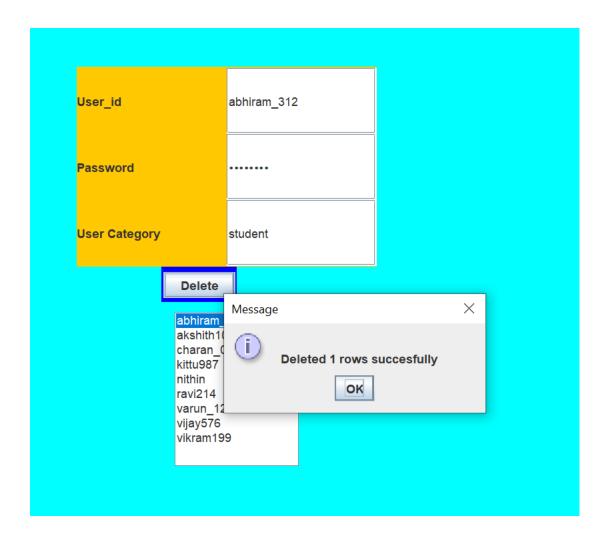
## **OUTPUT SCREENSHOTS:**

🕯 Student Assignments Tracker

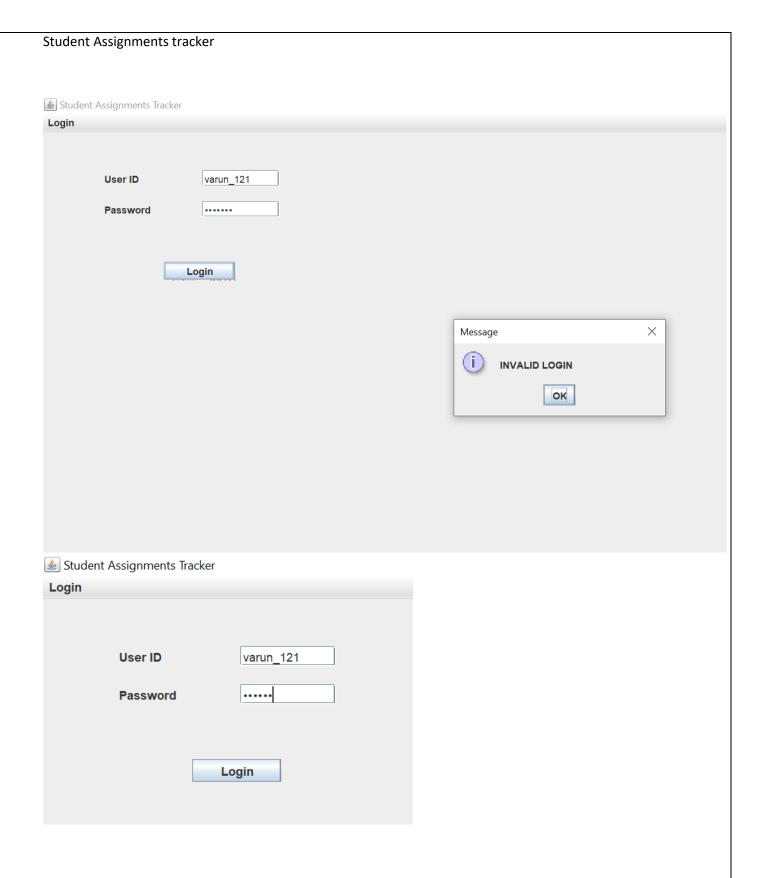


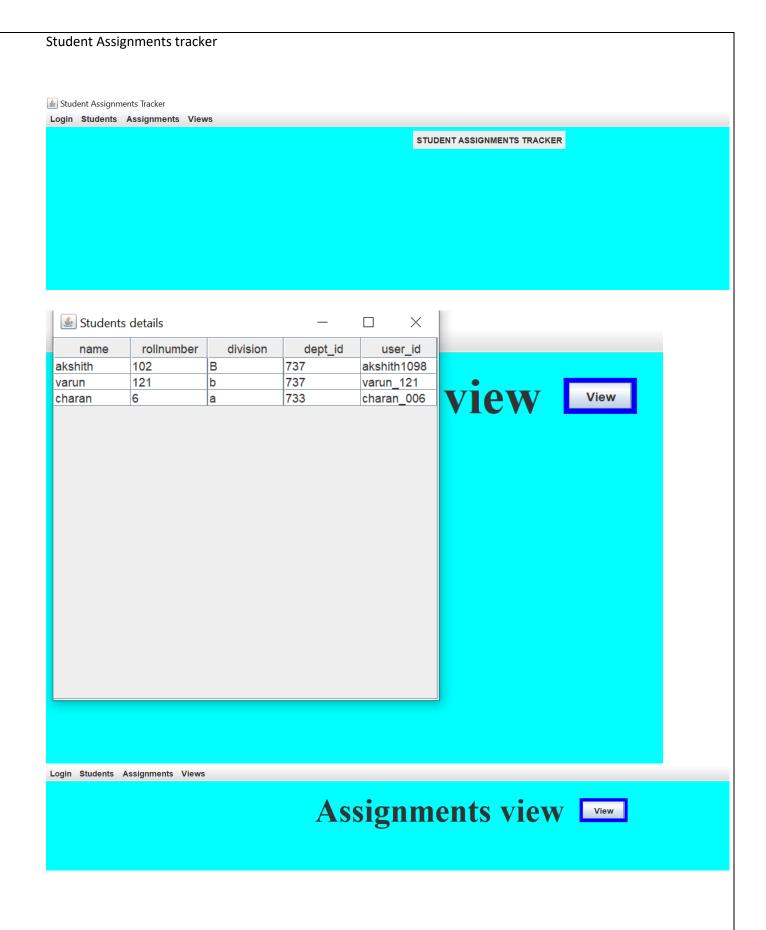
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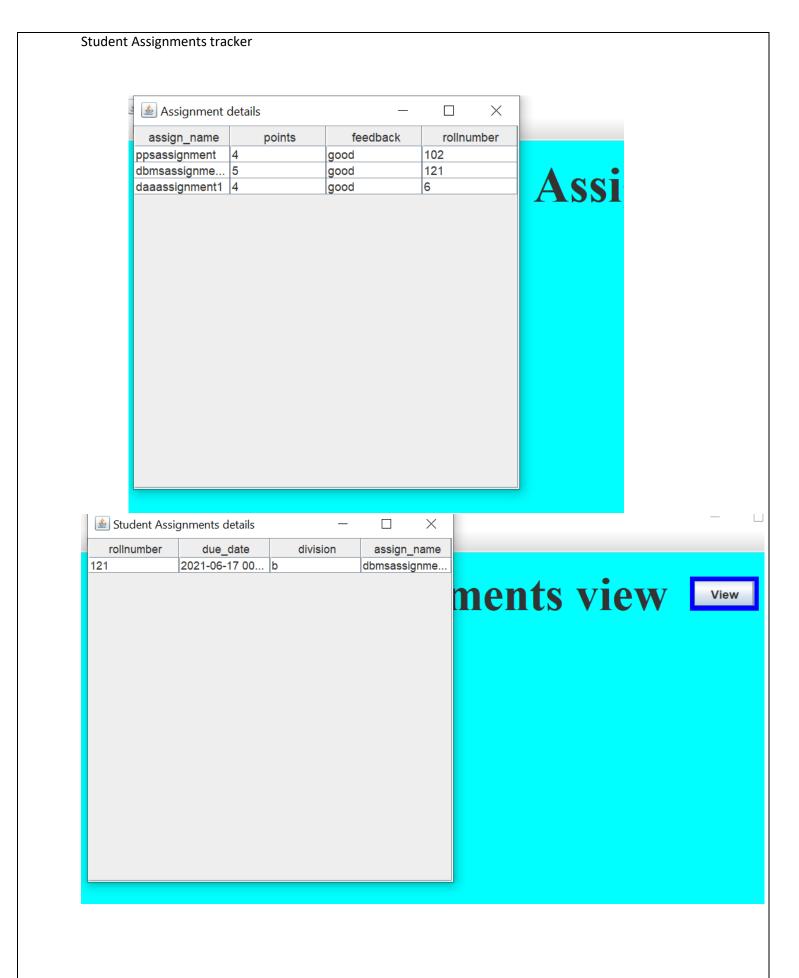


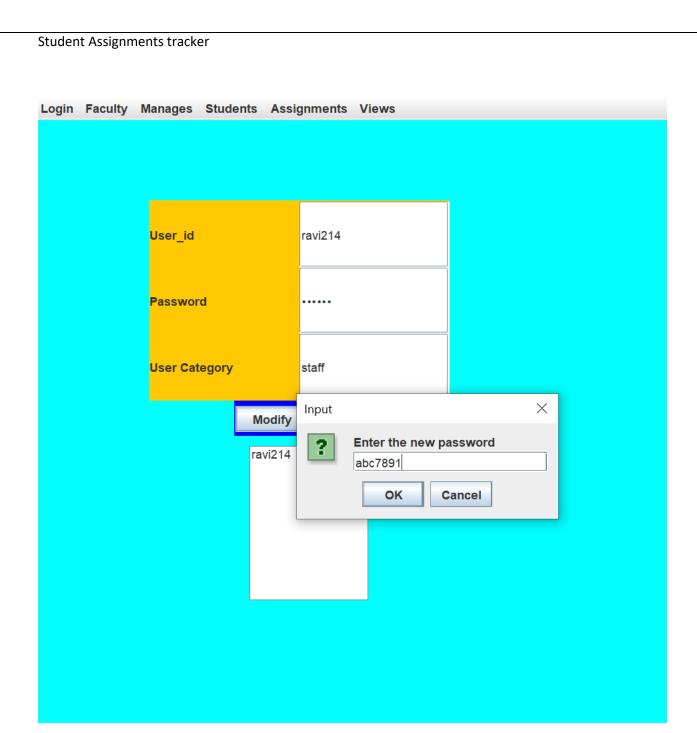


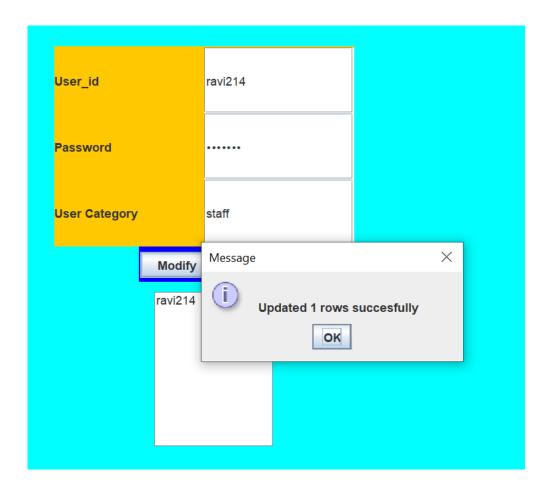
## Student Assignments tracker Login details $\times$ user\_id usercategory password charan\_006 def1465 student iew View ravi214 staff pqr9852 vijay576 staff kzyw77 kittu987 mnop771 student akshith1098 ghij001 student ijk9130 nithin admin varun\_121 abc789 student vikram199 a9bnjk staff

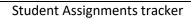


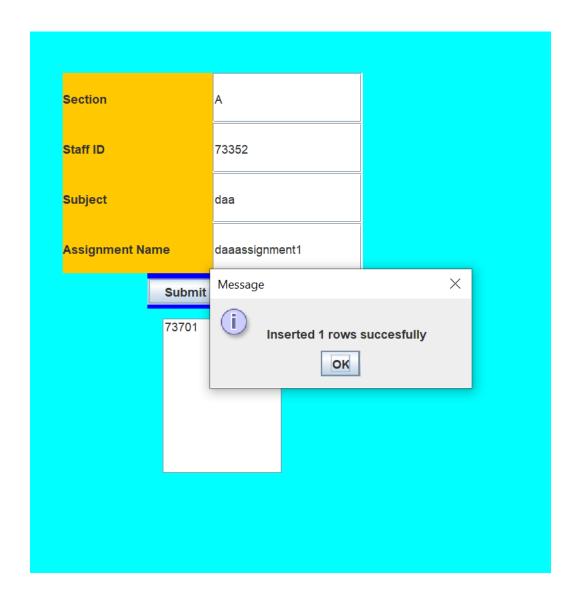


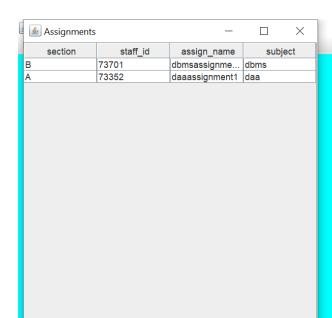






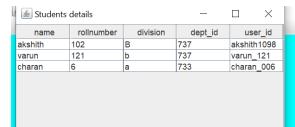






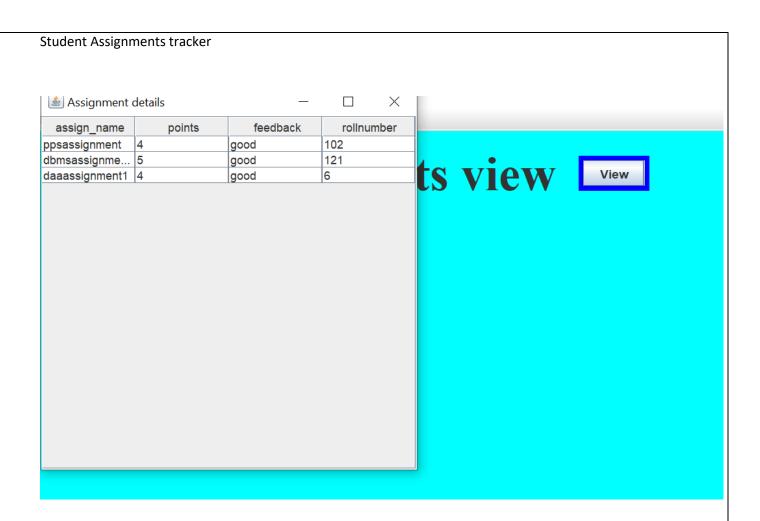
# Manages view View

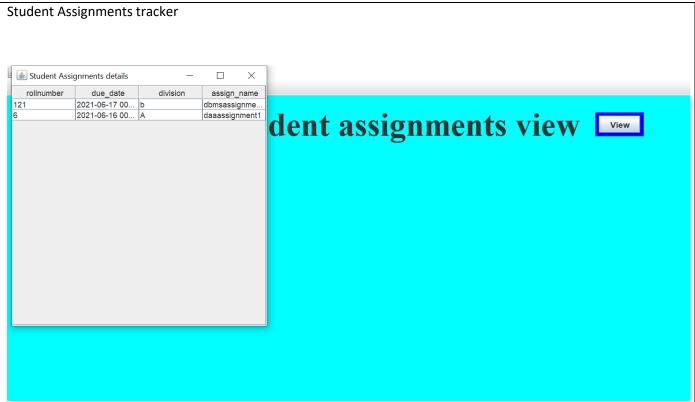


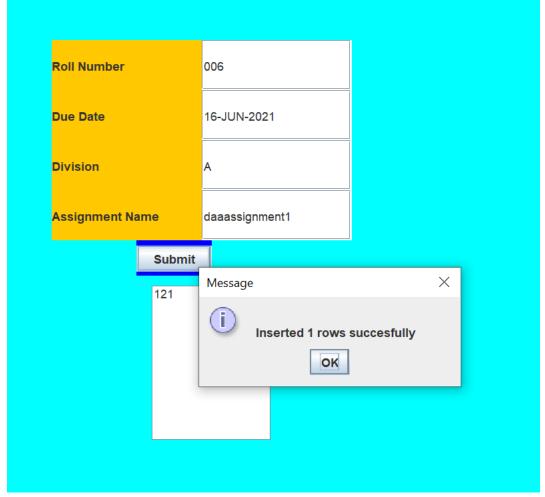


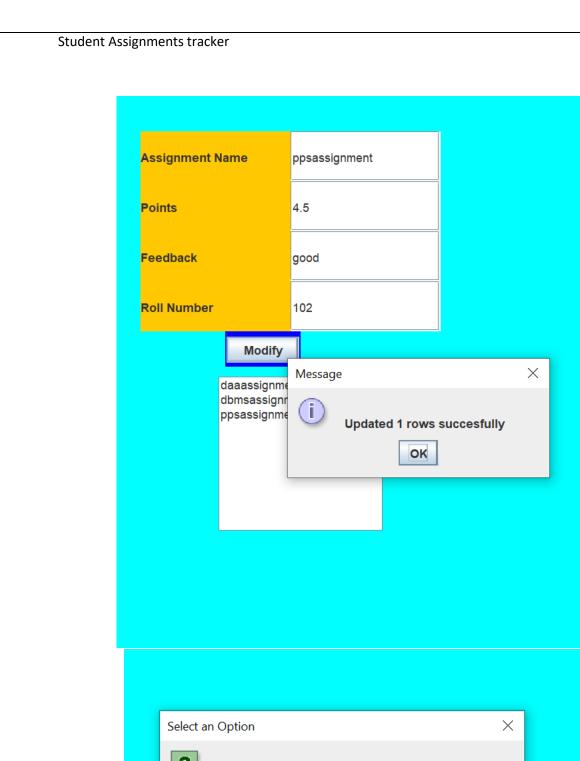
Students view View

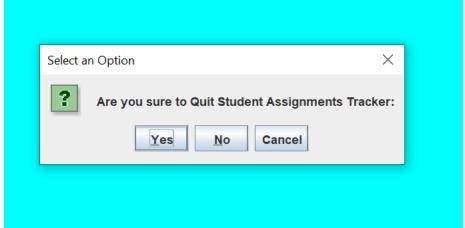


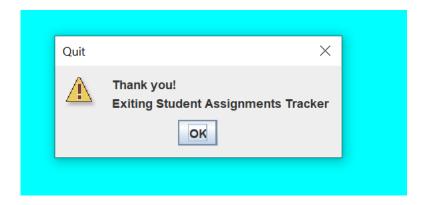












## **DATABASE OUTPUTS:**

#### **BEFORE**

```
SQL> select * from manages;

SECTI STAFF_ID ASSIGN_NAME

SUBJECT

73701 dbmsassignment1
dbms
```

### **AFTER**

```
SQL> select * from manages;

SECTI STAFF_ID ASSIGN_NAME

SUBJECT

B 73701 dbmsassignment1
dbms

A 73352 daaassignment1
daa
```

## **DISCUSSION AND FUTURE WORK**

So far this project has helped us assign assignments to students by staff and students will be able to view assignments their marks, due dates and feedback

In future we try to include an option which allows students to know their mistakes in their assignments and staff can highlight the mistakes by students in their respective submissions.

## **REFERENCES:**

- 1. Abraham Silberschatz, Henry F Korth, S. Sudarshan, Database System Concepts, 6th Edition, McGraw-Hill International Edition, 2010.
- 2. <a href="https://docs.oracle.com/cd/E11882">https://docs.oracle.com/cd/E11882</a> 01/server.112/e40540/intro.htm#CNCPT001