# JAVA

# MINI-PROJECT

SUBMITTED BY: LEO ABRAHAM

ROLL: NO: 32

CSE S3, BATCH 1

### AIM:

Create a Java Swing/AWT project to manage an Accreditation Compliance system in a university.

## **ALGORITHM:**

#### <u>Login Page</u>

- 1. Start
- 2. create frame
- 3. create label and textfield for username and password
- 4. create a submit button
- 5. add the components to frame
- 6. add event listener for submit button
- 7. open the database and check whether username and password entered are correct
- 8. if correct go to the next page according to the inputs(either to principal page or respective department page)
- 9. Stop

#### **Principal Page**

- 1. Start
- 2. create frame
- 3.create a progressbar, radio button to represent departments and a validate button to write file in the background.
- 4. create event listeners for radiobuttons and validate button.
- 5. for each radio button pressed, the progress of that corresponding department will be shown and validate button will be present if the progress is 100%. The details about the progress will be known from the database.
- 6. when the validate button is pressed a file will be written for that corresponding department.
- 7. Stop

#### **Department Page**

1. Start

- 2. create checkboxes for steps for accredition(Registration, SSR, yearly report).
- 3. create buttons for refresh and update.
- 4. add action listeners for update and refresh.
- 5. when refresh button is pressed, by looking data in the database corresponding checkboxes will be ticked.
- 6. after finishing any step the user can the tick the corresponding step and click the update button for saving the details. Then details will be updated into the database.
- 7. Stop

## PROGRAM:

#### **Login Page**

```
import java.awt.event.*;
import java.awt.*;
import java.sql.*;
import javax.swing.*;
public class swing extends JFrame implements ActionListener{
       private static final long serialVersionUID = 1L;
       String S = "";
       int flag = 0;
       static JLabel mssg, username, password, login;
       static JTextField tf;
       static JPasswordField pass;
       swing() {
       super("Acredition System");
       tf = new JTextField();
       username = new JLabel("UserName");
       password = new JLabel("Password");
       login=new JLabel("Login");
       mssg=new JLabel();
       pass = new JPasswordField();
       JButton submit = new JButton("Submit");
       tf.setForeground(Color.red);
       login.setBounds(150, 0, 350, 150);
       login.setFont(new Font("Verdana", Font.PLAIN, 24));
       username.setBounds(150, 125, 100, 30);
       tf.setBounds(150, 150, 100, 30);
        password.setBounds(150, 200, 100, 30);
```

```
pass.setBounds(150, 225, 100, 30);
       mssg.setBounds(150, 350, 150, 30);
       submit.setBounds(150, 300, 100, 30);
       submit.addActionListener(this);
       login.setForeground(Color.blue);
       add(login);
       add(submit);
       add(password);
       add(pass);
       add(username);
       add(tf);
       add(mssg);
       setSize(400, 450);
       setLayout(null);
       setVisible(true);
        }
       public static void main(String[] args) {
                swing m=new swing();
        }
        @Override
       public void actionPerformed(ActionEvent arg0) {
               // TODO Auto-generated method stub
               if(arg0.getActionCommand()=="Submit")
                        flag=0;
                       try
                               Class.forName("com.mysql.cj.jdbc.Driver");
                        {
                               Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                               Statement stmt= con.createStatement();
                               ResultSet rs=stmt.executeQuery("select * from Login");
                               while(rs.next())
                                       String userID=rs.getString("Username");
                 String password=rs.getString("Password");
                 if((userID.equals(tf.getText())) &&
(password.equals(String.valueOf(pass.getPassword()))))
                        mssg.setText("Correct Details");
                        flag=1;
                        break;
                               if(flag==0)
                                       mssg.setText("Incorrect Details");
                               }
                               else
                                       if(tf.getText().equals("CS"))
```

```
new cse();
                                         dispose();
                                 if(tf.getText().equals("EC"))
                                         new Ec();
                                         dispose();
                                 if(tf.getText().equals("Mech"))
                                         new Mech();
                                         dispose();
                                 if(tf.getText().equals("Principal"))
                                         new principal();
                                         dispose();
                                 }
                        con.close();
                }catch(Exception ex){System.out.println(ex);}
        }
}
```

#### **Principal Page**

}

```
import javax.swing.*;
import java.awt.event.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.awt.*;
import java.io.*;
public class principal extends JFrame implements ItemListener, ActionListener
{
        */
        private static final long serialVersionUID = 1L;
        int csv=0, mechv=0, ecv=0;
        JProgressBar percentage;
        JRadioButton cs, mech, ec;
        JButton validate;
        String dpt="";
        JLabel validated, heading;
        principal()
                super("Welcome Principal");
                heading=new JLabel("Choose Department");
                validate=new JButton("Validate");
                percentage=new JProgressBar(0,100);
                percentage.setBounds(75, 250, 100, 30);
                percentage.setValue(0);
```

```
percentage.setStringPainted(true);
                validated=new JLabel("validated");
                heading.setBounds(75, 50, 300, 30);
                heading.setForeground(Color.blue);
               heading.setFont(new Font("Verdana", Font.PLAIN, 24));
                validated.setBounds(200, 250, 100, 30);
                add(validated);
                validated.setVisible(false);
                cs=new JRadioButton("CS");
                mech=new JRadioButton("Mech");
                ec=new JRadioButton("EC");
                validate.setBounds(200, 250, 100, 30);
                validate.setVisible(false);
                cs.setBounds(75, 100, 100, 30);
                mech.setBounds(75, 150, 100, 30);
                ec.setBounds(75, 200, 100, 30);
                ButtonGroup bg=new ButtonGroup();
                bg.add(cs);
                bg.add(mech);
                bg.add(ec);
                validate.addActionListener(this);
                cs.addItemListener(this);
                ec.addItemListener(this);
                mech.addItemListener(this);
                add(heading);
                add(validate);
                add(cs);
                add(ec);
                add(mech);
                add(percentage);
                percentage.setVisible(false);
                setSize(400,450);
                setLayout(null);
                setVisible(true);
        @Override
        public void itemStateChanged(ItemEvent arg0) {
                // TODO Auto-generated method stub
                try
                        Class.forName("com.mysql.cj.jdbc.Driver");
                {
                        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                        Statement stmt= con.createStatement();
                        if(arg0.getSource()==cs)
                                ResultSet rs=stmt.executeQuery("select * from progress_bar where
Dept='CS'");
                                while(rs.next())
                                        percentage.setValue(rs.getInt("percentage"));
                                        percentage.setVisible(true);
                                File f=new File("cs.txt");
                                if(percentage.getValue()==100&&(!f.isFile()))
                                        validate.setVisible(true);
                                        validated.setVisible(false);
```

```
else if(f.isFile())
                                          validate.setVisible(false);
                                          validated.setVisible(true);
                                 }
                                 else
                                 {
                                          validated.setVisible(false);
                                          validate.setVisible(false);
                                 dpt="CS";
                         else if(arg0.getSource()==mech)
                                 ResultSet rs=stmt.executeQuery("select * from progress_bar where
Dept='Mech'");
                                 while(rs.next())
                                          percentage.setValue(rs.getInt("percentage"));
                                          percentage.setVisible(true);
                                 File f=new File("mech.txt");
                                 if(percentage.getValue()==100&&(!f.isFile()))
                                          validate.setVisible(true);
                                          validated.setVisible(false);
                                 else if(f.isFile())
                                          validate.setVisible(false);
                                          validated.setVisible(true);
                                 }
                                 else
                                 {
                                          validated.setVisible(false);
                                          validate.setVisible(false);
                                 dpt="Mech";
                         if(arg0.getSource()==ec)
                                 ResultSet rs=stmt.executeQuery("select * from progress_bar where
Dept='EC'");
                                 while(rs.next())
                                 {
                                          percentage.setValue(rs.getInt("percentage"));
                                          percentage.setVisible(true);
                                 File f=new File("ec.txt");
                                 if(percentage.getValue()==100&&(!f.isFile()))
                                          validate.setVisible(true);
                                          validated.setVisible(false);
                                 else if(f.isFile())
```

```
validate.setVisible(false);
                                         validated.setVisible(true);
                                 }
                                else
                                 {
                                         validated.setVisible(false);
                                         validate.setVisible(false);
                                 dpt="EC";
                        con.close();
                }catch(Exception ex){System.out.println(ex);}
        @Override
        public void actionPerformed(ActionEvent arg1) {
                // TODO Auto-generated method stub
                try {
                        if(dpt.equals("CS"))
                                 FileWriter f=new FileWriter("cs.txt");
                                f.write("Dept: CS"+ "\n"+ "CheckList: Registration, Yearly Report, Self
Study Report");
                                f.close();
                                csv=1;
                        if(dpt.equals("Mech"))
                                 FileWriter f=new FileWriter("mech.txt");
                                 f.write("Acredition for mech is done");
                                f.close();
                                mechv=1;
                        if(dpt.equals("EC"))
                                FileWriter f=new FileWriter("ec.txt");
                                 f.write("Acredition for ec is done");
                                f.close();
                                ecv=1;
                }catch(Exception e) {System.out.println(e);}
        }
}
```

#### **Department Pages**

#### **1. CSE**

```
import javax.swing.*;
import java.awt.event.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
public class cse extends JFrame implements ActionListener
{
```

```
private static final long serialVersionUID = 1L;
        JCheckBox reg, yr, ssr;
       JButton update, refresh;
       public cse()
               super("Computer Science Engineering");
               reg =new JCheckBox("Registration");
               yr=new JCheckBox("Yearly Report");
               ssr=new JCheckBox("Self Study Report");
               update =new JButton("Update");
               refresh=new JButton("Refresh");
               reg.setBounds(200, 100, 150, 30);
               yr.setBounds(200, 120, 150, 30);
               ssr.setBounds(200, 140, 150, 30);
               update.setBounds(100, 250, 100, 30);
               refresh.setBounds(250, 250, 100, 30);
               update.addActionListener(this);
               refresh.addActionListener(this);
               add(reg);
               add(yr);
               add(ssr);
               add(update);
               add(refresh);
               setSize(500,550);
               setLayout(null);
               setVisible(true);
       public static void main(String args[])
               cse c=new cse();
        @Override
       public void actionPerformed(ActionEvent arg0) {
               // TODO Auto-generated method stub
               if(arg0.getActionCommand()=="Update")
               {
                       try
                       {
                               Class.forName("com.mysql.cj.jdbc.Driver");
                               Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                               Statement stmt= con.createStatement();
                               if(reg.isSelected())
                               {
                                       stmt.execute("UPDATE CSE SET status=1 WHERE
topics='Registration'");
                               }
                               else
                                       stmt.execute("UPDATE CSE SET status=0 WHERE
topics='Registration'");
                                       //stmt.execute("UPDATE progress_bar SET percentage=percentage-
33 WHERE Dept='CS'");
```

```
if(yr.isSelected())
                                     stmt.execute("UPDATE CSE SET status=1 WHERE topics='Yearly
Report");
                              }
                              else
                                     stmt.execute("UPDATE CSE SET status=0 WHERE topics='Yearly
Report");
                                     //stmt.execute("UPDATE progress bar SET percentage=percentage-
33 WHERE Dept='CS'");
                              if(ssr.isSelected())
                                     stmt.execute("UPDATE CSE SET status=1 WHERE topics='SSR'");
                                     //stmt.execute("UPDATE progress_bar SET percentage+=34
WHERE Dept='CS'");
                              }
                              else
                              {
                                     stmt.execute("UPDATE CSE SET status=0 WHERE topics='SSR'");
                                     //stmt.execute("UPDATE progress_bar SET percentage=percentage=
34 WHERE Dept='CS'");
                              if(reg.isSelected()&&ssr.isSelected())
                              {
                                     stmt.execute("UPDATE progress_bar SET percentage=100
WHERE Dept='CS'");
                              else if((reg.isSelected())&&yr.isSelected())||
(yr.isSelected()&&ssr.isSelected())||(reg.isSelected()&&ssr.isSelected()))
                                     stmt.execute("UPDATE progress_bar SET percentage=66 WHERE
Dept='CS'");
                              else if(reg.isSelected()||yr.isSelected()||ssr.isSelected())
                                     stmt.execute("UPDATE progress_bar SET percentage=33 WHERE
Dept='CS'");
                              else
                                     stmt.execute("UPDATE progress_bar SET percentage=0 WHERE
Dept='CS'");
                              con.close():
                      }catch(Exception ex){System.out.println(ex);}
               if(arg0.getActionCommand()=="Refresh")
                      try
                              Class.forName("com.mysql.cj.jdbc.Driver");
                      {
                              Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                              Statement stmt= con.createStatement();
                              ResultSet rs=stmt.executeQuery("Select * from CSE");
                              while(rs.next())
```

```
int status=rs.getInt("status");
                                         if(rs.getString("topics").equals("Registration"))
                                                  if(status==1)
                                                          reg.setSelected(true);
                                         if(rs.getString("topics").equals("Yearly Report"))
                                                  if(status==1)
                                                          yr.setSelected(true);
                                         if(rs.getString("topics").equals("SSR"))
                                                  if(status==1)
                                                          ssr.setSelected(true);
                                          }
                                 con.close();
                         }catch(Exception ex){System.out.println(ex);}
                }
        }
}
2. Mech
import javax.swing.*;
import java.awt.event.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
public class Mech extends JFrame implements ActionListener
        /**
         */
        private static final long serialVersionUID = 1L;
        JCheckBox reg, yr, ssr;
        JButton update, refresh;
        public Mech()
                super("Mechanical Engineering");
                reg =new JCheckBox("Registration");
                yr=new JCheckBox("Yearly Report");
ssr=new JCheckBox("Self Study Report");
                update =new JButton("Update");
                refresh=new JButton("Refresh");
                reg.setBounds(200, 100, 150, 30);
                yr.setBounds(200, 120, 150, 30);
                ssr.setBounds(200, 140, 150, 30);
                update.setBounds(100, 250, 100, 30);
                refresh.setBounds(250, 250, 100, 30);
                update.addActionListener(this);
                refresh.addActionListener(this);
                add(reg);
```

```
add(yr);
               add(ssr);
               add(update);
               add(refresh);
               setSize(500,550);
               setLayout(null);
               setVisible(true);
       public static void main(String args[])
               Mech m=new Mech();
       @Override
       public void actionPerformed(ActionEvent arg0) {
               // TODO Auto-generated method stub
               if(arg0.getActionCommand()=="Update")
                      try
                              Class.forName("com.mysql.cj.jdbc.Driver");
                       {
                              Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                              Statement stmt= con.createStatement();
                              if(reg.isSelected())
                              {
                                      stmt.execute("UPDATE Mech SET status=1 WHERE
topics='Registration'");
                              }
                              else
                                      stmt.execute("UPDATE Mech SET status=0 WHERE
topics='Registration'");
                                      //stmt.execute("UPDATE progress_bar SET percentage=percentage=
33 WHERE Dept='CS'");
                              if(yr.isSelected())
                                      stmt.execute("UPDATE Mech SET status=1 WHERE
topics='Yearly Report'");
                              }
                              else
                              {
                                      stmt.execute("UPDATE Mech SET status=0 WHERE
topics='Yearly Report'");
                                      //stmt.execute("UPDATE progress_bar SET percentage=percentage=
33 WHERE Dept='CS'");
                              if(ssr.isSelected())
                                      stmt.execute("UPDATE Mech SET status=1 WHERE
topics='SSR'");
                                      //stmt.execute("UPDATE progress_bar SET percentage+=34
WHERE Dept='CS'");
```

```
}
                               else
                                       stmt.execute("UPDATE Mech SET status=0 WHERE
topics='SSR'");
                                       //stmt.execute("UPDATE progress_bar SET percentage=percentage=
34 WHERE Dept='CS'");
                               if(reg.isSelected()&&ssr.isSelected())
                                       stmt.execute("UPDATE progress_bar SET percentage=100
WHERE Dept='Mech'");
                               else if((reg.isSelected())&&yr.isSelected())||
(yr.isSelected()&&ssr.isSelected())||(reg.isSelected()&&ssr.isSelected()))
                                       stmt.execute("UPDATE progress_bar SET percentage=66 WHERE
Dept='Mech'");
                               else if(reg.isSelected()||yr.isSelected()||ssr.isSelected())
                                       stmt.execute("UPDATE progress bar SET percentage=33 WHERE
Dept='Mech'");
                               else
                                       stmt.execute("UPDATE progress_bar SET percentage=0 WHERE
Dept='Mech'");
                               con.close();
                       }catch(Exception ex){System.out.println(ex);}
               if(arg0.getActionCommand()=="Refresh")
                       try
                               Class.forName("com.mysql.cj.jdbc.Driver");
                               Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                               Statement stmt= con.createStatement();
                               ResultSet rs=stmt.executeQuery("Select * from Mech");
                               while(rs.next())
                               {
                                       int status=rs.getInt("status");
                                       if(rs.getString("topics").equals("Registration"))
                                              if(status==1)
                                                      reg.setSelected(true);
                                       if(rs.getString("topics").equals("Yearly Report"))
                                              if(status==1)
                                                      yr.setSelected(true);
                                       if(rs.getString("topics").equals("SSR"))
                                              if(status==1)
                                                      ssr.setSelected(true);
                                       }
                               con.close();
                       }catch(Exception ex){System.out.println(ex);}
               }
```

```
}
3. EC
import javax.swing.*;
import java.awt.event.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
public class Ec extends JFrame implements ActionListener
        /**
        */
        private static final long serialVersionUID = 1L;
       JCheckBox reg, yr, ssr;
       JButton update, refresh;
       public Ec()
                super("Electronics and Communication Engineering");
                reg =new JCheckBox("Registration");
                yr=new JCheckBox("Yearly Report");
                ssr=new JCheckBox("Self Study Report");
                update =new JButton("Update");
               refresh=new JButton("Refresh");
                reg.setBounds(200, 100, 150, 30);
                yr.setBounds(200, 120, 150, 30);
                ssr.setBounds(200, 140, 150, 30);
                update.setBounds(100, 250, 100, 30);
                refresh.setBounds(250, 250, 100, 30);
                update.addActionListener(this);
               refresh.addActionListener(this);
                add(reg);
                add(yr);
               add(ssr);
                add(update);
                add(refresh);
               setSize(500,550);
               setLayout(null);
               setVisible(true);
       public static void main(String args[])
               Ec e=new Ec();
        @Override
       public void actionPerformed(ActionEvent arg0) {
               // TODO Auto-generated method stub
               if(arg0.getActionCommand()=="Update")
                {
                       try
                        {
                               Class.forName("com.mysql.cj.jdbc.Driver");
                               Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
```

}

```
Statement stmt= con.createStatement();
                              if(reg.isSelected())
                              {
                                     stmt.execute("UPDATE EC SET status=1 WHERE
topics='Registration'");
                              }
                              else
                              {
                                     stmt.execute("UPDATE EC SET status=0 WHERE
topics='Registration'");
                                     //stmt.execute("UPDATE progress bar SET percentage=percentage=
33 WHERE Dept='CS'");
                              if(yr.isSelected())
                                     stmt.execute("UPDATE EC SET status=1 WHERE topics='Yearly
Report");
                              }
                              else
                              {
                                     stmt.execute("UPDATE EC SET status=0 WHERE topics='Yearly
Report'");
                                     //stmt.execute("UPDATE progress_bar SET percentage=percentage=
33 WHERE Dept='CS'");
                              if(ssr.isSelected())
                                     stmt.execute("UPDATE EC SET status=1 WHERE topics='SSR'");
                                     //stmt.execute("UPDATE progress_bar SET percentage+=34
WHERE Dept='CS'");
                              }
                              else
                                     stmt.execute("UPDATE EC SET status=0 WHERE topics='SSR'");
                                     //stmt.execute("UPDATE progress_bar SET percentage=percentage=
34 WHERE Dept='CS'");
                              if(reg.isSelected()&&ssr.isSelected())
                              {
                                     stmt.execute("UPDATE progress bar SET percentage=100
WHERE Dept='EC'");
                              else if((reg.isSelected())&&yr.isSelected())||
(yr.isSelected()&&ssr.isSelected())||(reg.isSelected()&&ssr.isSelected()))
                                     stmt.execute("UPDATE progress_bar SET percentage=66 WHERE
Dept='EC'");
                              else if(reg.isSelected()||yr.isSelected()||ssr.isSelected())
                                     stmt.execute("UPDATE progress_bar SET percentage=33 WHERE
Dept='EC'");
                              else
                                     stmt.execute("UPDATE progress_bar SET percentage=0 WHERE
Dept='EC'");
```

```
con.close();
                        }catch(Exception ex){System.out.println(ex);}
                if(arg0.getActionCommand()=="Refresh")
                        try
                                Class.forName("com.mysql.cj.jdbc.Driver");
                                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/miniproject", "root", "Leo@2002");
                                Statement stmt= con.createStatement();
                                ResultSet rs=stmt.executeQuery("Select * from EC");
                                while(rs.next())
                                        int status=rs.getInt("status");
                                        if(rs.getString("topics").equals("Registration"))
                                                if(status==1)
                                                        reg.setSelected(true);
                                        if(rs.getString("topics").equals("Yearly Report"))
                                                if(status==1)
                                                        yr.setSelected(true);
                                        if(rs.getString("topics").equals("SSR"))
                                                if(status==1)
                                                        ssr.setSelected(true);
                                con.close();
                        }catch(Exception ex){System.out.println(ex);}
                }
}
```

## SQL DATABASE USED: miniproject

## **TABLES USED**

## 1. Login

## 2. progress\_bar

```
mysql> select * from progress_bar;

| Dept | percentage |

+---+
| CS | 0 |
| Mech | 0 |
| EC | 0 |

+---+
3 rows in set (0.00 sec)
```

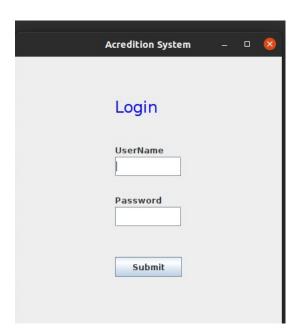
### 3. CSE

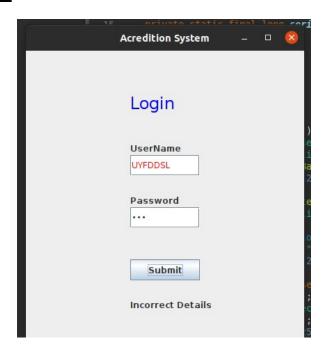
## 4. EC

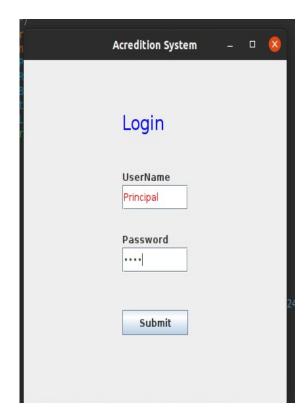
## 5. Mech

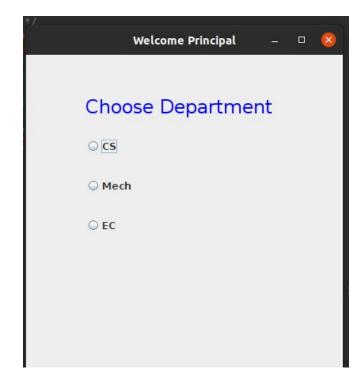
```
imysql> select * from Mech;
topics | status |
Registration | 0 |
Yearly Report | 0 |
SSR | 0 |
topics | status |
To
```

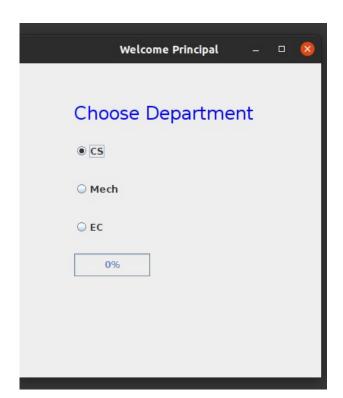
# **INPUT & OUTPUT:**















```
mysql> select * from CSE;

topics | status |

Registration | 1 |

Yearly Report | 0 |

SSR | 1 |

Topics | status |

Registration | 1 |

Yearly Report | 0 |

SSR | 1 |

Topics | status |

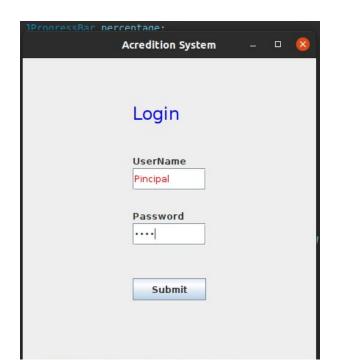
Registration | 1 |

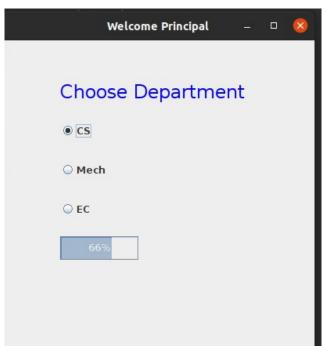
Yearly Report | 0 |

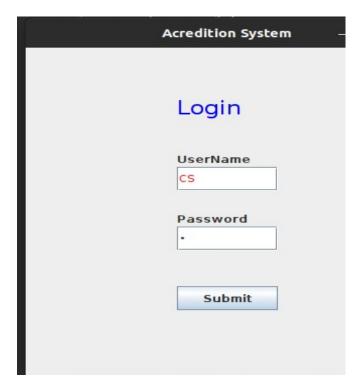
SSR | 1 |

Topics | status |

T
```









```
mysql> select * from CSE;

topics | status |

Registration | 1 |

Yearly Report | 1 |

SSR | 1 |

Tows in set (0.00 sec)
```

