

PROJECT ON:

**“Web application for Hostel Management
System”**

GRAPHIC ERA DEEMED TO BE UNIVERSITY

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INTRODUCTION:

STATEMENT:

“Web application for hostel management”

What is Web Application? A web-application is an application program that is usually stored on a remote server, and users can access it through the use of **Software**. This project of hostel management is made using Web application features.

Every organization, whether big or small ,has challenges to overcome and managing the information of Room, Hostel, Student ,Facility ,etc. Every hostel management has different hostel needs so according to that we need some management systems that can manage all this.

The purpose of Hostel management system is to automate the existing manual system by the help of computerized equipments , so that valuable data/information can be stored for long period with easy accessing and manipulation of same.

Hostel Management system, as described above ,can lead to error free ,secure ,reliable and fast management. Thus, it will help organizations in better utilization of resources Basically

the project describes how to manage for good performance and better services for the clients.

MOTIVATION FOR DOING THE PROJECT:

I chose this project “Web application for hostel management system” because I knew JAVA language would be used in this project and we recently started our JAVA programming language in our current semester, so this was the best way to explore the features of **JAVA language**, and I personally like JAVA in programming aspect and developing GUI as JAVA is very simple language with a lot of features ,like oops.

Java, swing, MySQL database were the main components of this project and this project helped me in studying them more precisely.

TOOLS USED:

- In the following project, I used the **JAVA programming** language for both frontend and backend.

Environment Used:-MySQL connector, MySQL installer, Apache-NetBeans IDE.

JAVA :Java is a **programming language** and a **platform**. Java is a high level, robust, object-oriented, and secure programming language. Java is a commonly used language for web development, especially on the server-side. **Java web applications** are distributed applications that run on the internet. Web development with Java allows us to create dynamic web pages where users can interact with the interface.

- For the frontend, I used the **Swing features(JButton ,JLabel ,Table ,Separator ,JTextField)** for developing GUI.

SWING:Swing is a **Graphical User Interface (GUI) API**, offering a set of components that can be used to build rich desktop interfaces. This includes basic elements such as buttons, scrollbars, etc., as well as more complex compound objects such as file choosers, color choosers and combo boxes.

- For the backend ,I used the **MySQL database**(for the data of the hostel) for connection.

MYSQL :

MySQL is a database management system. A [relational database](#) organizes data into one or more data tables in which data may be related to each other, these relations help structure the data. SQL is a language programmers use to create, modify, and extract data from the relational database, as well as control user access to the database.

METHODOLOGY FOLLOWED:

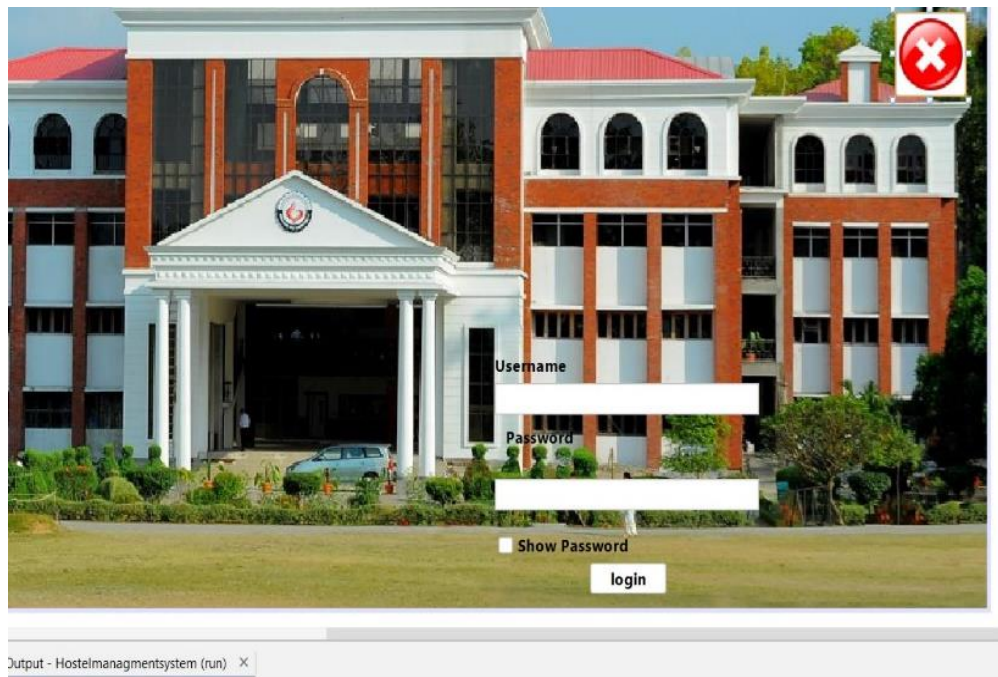
For implementing this project following methodology needs to be followed:-

- **The very first step is to import the various libraries namely:**

```
import javax.swing.JOptionPane;  
import java.awt.Color;  
import javax.swing.JButton;  
import java.sql.*;  
import java.sql.Connection;  
import java.sql.DriverManager;  
import project.Connectionprovider;  
import javax.swing.table.DefaultTableModel;
```

- **Creating class namely- HostelManagment(this is our main class)**

- **Creating a package login for GUI(login page):**



```
package hostelmanagementsystem;
```

```
import java.awt.Color;
```

```
import javax.swing.JOptionPane;
```

```
/**
```

```
 * @author Deepika
```

```
 */
```

```
public class home extends javax.swing.JFrame {
```

```
    public home() {  
        initComponents();  
    }
```

```
    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {  
    }
```

```
    private void jPasswordField1ActionPerformed(java.awt.event.ActionEvent evt) {  
    }
```

```
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {  
        int a=JOptionPane.showConfirmDialog(null,"Really want to exit","select",  
JOptionPane.YES_NO_OPTION); //close button  
        if(a==0) //user selected yes  
        {  
            System.exit(0);  
        }  
    }
```

```
    private void jCheckBox1ActionPerformed(java.awt.event.ActionEvent evt) {  
        if(jCheckBox1.isSelected())  
        {  
            jPasswordField1.setEchoChar((char)0);  
        }  
        else jPasswordField1.setEchoChar('*');    }
```

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    if(jTextField1.getText().equals("hostel")&& jPasswordField1.getText().equals("admin")) //setting
username and password
    {
        setVisible(false);
        new home().setVisible(true);
    }
    else
        JOptionPane.showMessageDialog(null," Incorrect Username or password");
}

public static void main(String args[]) {
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new login().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.Box.Filler filler1;
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JCheckBox jCheckBox1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JMenuItem jMenuItem1;
private javax.swing.JPasswordField jPasswordField1;
private javax.swing.JTextField jTextField1;
// End of variables declaration
}

```


- **Creating the next page after login that is, home page:**



```
package hostelmanagementsystem;

import javax.swing.JOptionPane;

public class login extends javax.swing.JFrame {

    public login() {
        initComponents();
    }

    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jPasswordField1ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        int a=JOptionPane.showConfirmDialog(null,"Really want to exit","select",
JOptionPane.YES_NO_OPTION); //close button
        if(a==0) //user selected yes
        {
            System.exit(0);
        }
    }

    private void jCheckBox1ActionPerformed(java.awt.event.ActionEvent evt) {
        if(jCheckBox1.isSelected())
        { jPasswordField1.setEchoChar((char)0);
        }
        else jPasswordField1.setEchoChar('*'); // TODO add your handling code here:
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        if(jTextField1.getText().equals("hostel")&&jPasswordField1.getText().equals("admin")) //setting
        username and password
    }
}
```



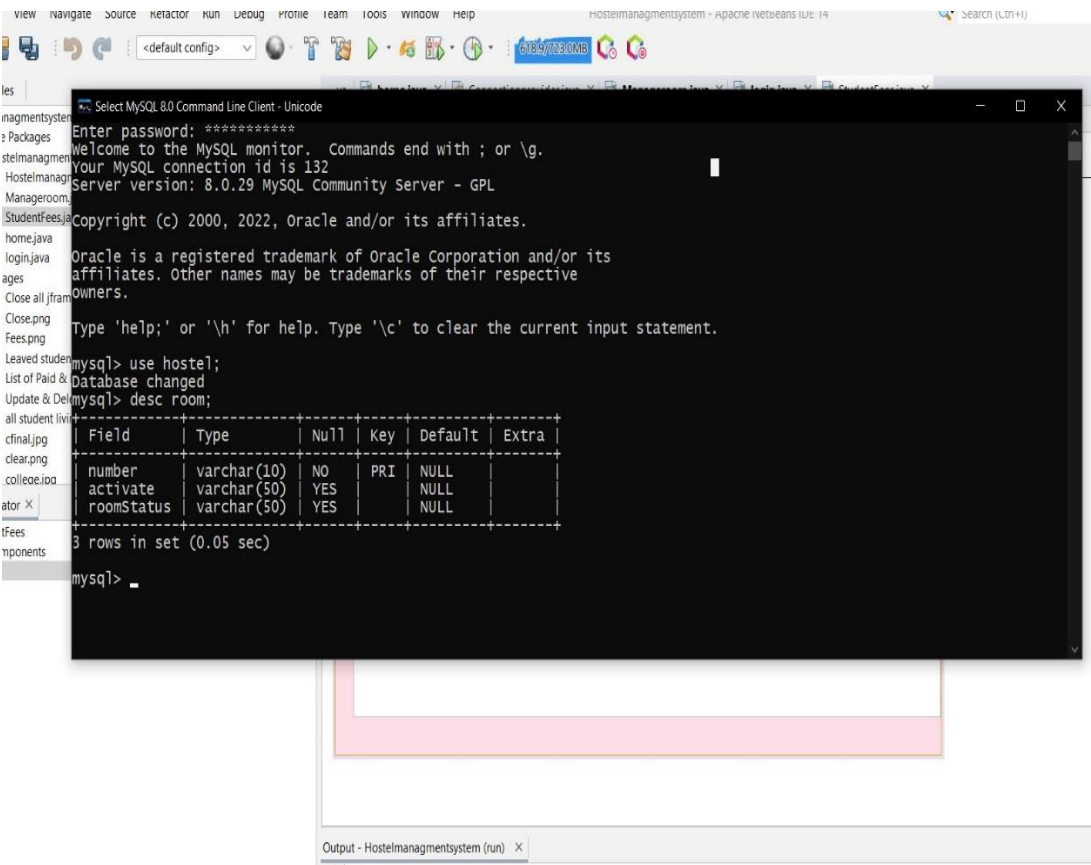
```
        { setVisible(false);
          new home().setVisible(true);
        }
    else
        JOptionPane.showMessageDialog(null," Incorrect Username or password");
    }

public static void main(String args[]) {
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new login().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.Box.Filler filler1;
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JCheckBox jCheckBox1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JMenuItem jMenuItem1;
private javax.swing.JPasswordField jPasswordField1;
private javax.swing.JTextField jTextField1;
```

- So, for choosing the options from home page we must create a database ,build the ConnectionProvider class for connecting MySQL database to our GUI:

```
12  *
13  * @author Deepika
14  */
15  public class Connectionprovider {
16      public static Connection getCon()
17      {
18          try
19          {
20              Class.forName("com.mysql.cj.jdbc.Driver");
21              Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/hostel","root","Deepika@123");
22              return con;
23          }
24          catch(Exception e)
25          {
26              return null;
27          }
28      }
29  }
30
31
32
33
```



- For example, choosing Manage Room from home page:

The screenshot shows a Java Swing window with a pink background and a blue border. The window is divided into three main sections. The top section is titled 'ADD NEW ROOM' and contains a 'Room Number' text field, an 'Activate or Deactivate' checkbox with a 'yes' label, and a 'save' button. The middle section is titled 'UPDATE AND DELETE ROOM' and contains a 'Room Number' text field, a 'Search' button, an 'Activate or Deactivate' checkbox with a 'yes' label, and 'Update' and 'Delete' buttons. The bottom section is titled 'All rooms' and contains a table with three columns: 'Number', 'Activate', and 'Room Status'. The table is currently empty.

```
package hostelmanagementsystem;

import java.awt.Color;
import javax.swing.JButton;
import java.sql.*;
import java.sql.Connection;
import java.sql.DriverManager;
import javax.swing.JOptionPane;
import project.Connectionprovider;
import javax.swing.table.DefaultTableModel;
import javax.swing.table.*;

public class Manageroom extends javax.swing.JFrame {

    public void clear() //used to clear all the fields in our form
    {
        jTextField1.setText("");
        jTextField2.setText("");
        jCheckBox1.setSelected(false); //untick check box
        jCheckBox2.setSelected(false);
        jTextField2.setBackground(new JButton().getBackground()); //for changing color
        jTextField2.setForeground(new JButton().getForeground()); //for text color
        jTextField2.setEditable(true);}

    {
        DefaultTableModel dtm=(DefaultTableModel) jTable1.getModel(); //accessing table
        dtm.setRowCount(0); //first deleting all the details from table
```

```

try{
    Connection con=Connectionprovider.getCon();
    Statement st= con.createStatement();
    ResultSet rs= st.executeQuery("select *from room"); //to display the result
    while(rs.next())
    {
dtm.addRow(new Object[]{rs.getString(1),rs.getString(2),rs.getString(3)}); //display all the details in table
    } }
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e); }
}

public Manageroom() {
    initComponents();
    tableDetails();
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    setVisible(false);
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String RoomNumber= jTextField1.getText();
    String activate;
    String roomStatus="Not Booked"; //initially not booked
    if(jCheckBox1.isSelected())
    {
        activate="Yes";
    }
    else
        activate="No";
    try{
        Connection con= Connectionprovider.getCon();

```

PreparedStatement ps= con.prepareStatement("insert into room values(?,?,?)"); //for inserting three values in question mark

ps.setString(1, RoomNumber);

ps.setString(2, activate);

ps.setString(3, roomStatus);

ps.executeUpdate();

JOptionPane.showMessageDialog(null,"successfully updated");

tableDetails(); //to update table

clear(); //to clear other fields above separator

}

catch(Exception e)

{

JOptionPane.showMessageDialog(null, e);

} }

private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {

String roomnumber= jTextField2.getText(); //to search any room no which is not booked

int i=0;

try {

Connection con = Connectionprovider.getCon();

Statement st= con.createStatement();

ResultSet rs= st.executeQuery("select *from room where number='"+roomnumber +"'");

while(rs.next())

{

i=1; //room no exists

if(rs.getString(3).equals("Booked"))

{

JOptionPane.showMessageDialog(null, "Room is Booked");

clear();

}

else

{ //if room is not booked

jTextField2.setEditable(false); // admin cannot change it

jTextField2.setForeground(Color.red); //color change

```

        jTextField2.setBackground(Color.pink);
        if(rs.getString(2).equals("Yes")) //update activation status
            jCheckBox2.setSelected(true);
        else
            jCheckBox2.setSelected(false);    }
    }
    if(i==0) //room not available
    {
        JOptionPane.showMessageDialog(null, "Room Number does not exist");
        clear(); //clear all fields
    }
}
catch(Exception e)
{
    JOptionPane.showMessageDialog(null, e);
}
}

```

```

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String roomnumber= jTextField2.getText(); //updating room
    String activate;
    if(jCheckBox2.isSelected())
        activate="Yes";
    else
        activate="No";
    try
    {
        Connection con=Connectionprovider.getCon();
        Statement st= con.createStatement();
        st.executeUpdate("update room set activate='"+activate+"'where number='"+roomnumber+"'");
        JOptionPane.showMessageDialog(null,"Sucessfully Updated");
        tableDetails();
        clear();
    }
}

```



```
catch(Exception e)
{
    JOptionPane.showMessageDialog(null, e); } }
```

```
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    String roomnumber= jTextField2.getText();
    try
    {
        Connection con=Connectionprovider.getCon();
        Statement st= con.createStatement();
        st.executeUpdate("delete from room where number='"+roomnumber+"'");
        JOptionPane.showMessageDialog(null,"Sucessfully deleted");
        tableDetails();
        clear();

    }
    catch(Exception e)
    {
        JOptionPane.showMessageDialog(null, e);
    }
}
```

```
private void jCheckBox1ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
}

public static void main(String args[]) {
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new Manageroom().setVisible(true);
        }
    });
}
```

```
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
```

```
private javax.swing.JButton jButton2;  
private javax.swing.JButton jButton3;  
private javax.swing.JButton jButton4;  
private javax.swing.JButton jButton5;  
private javax.swing.JCheckBox jCheckBox1;  
private javax.swing.JCheckBox jCheckBox2;  
private javax.swing.JLabel jLabel1;  
private javax.swing.JLabel jLabel2;  
private javax.swing.JLabel jLabel3;  
private javax.swing.JLabel jLabel4;  
private javax.swing.JLabel jLabel5;  
private javax.swing.JLabel jLabel6;  
private javax.swing.JLabel jLabel7;  
private javax.swing.JLabel jLabel8;  
private javax.swing.JScrollPane jScrollPane1;  
private javax.swing.JSeparator jSeparator1;  
private javax.swing.JSeparator jSeparator2;  
private javax.swing.JTable jTable1;  
private javax.swing.JTextField jTextField1;  
private javax.swing.JTextField jTextField2;  
// End of variables declaration  
}
```

- If the user chooses new student from home page:

```
package hostelmanagementsystem;
import java.sql.*;
import javax.swing.JOptionPane;
import project.Connectionprovider;
import javax.swing.table.DefaultTableModel;
import java.text.SimpleDateFormat;
import java.util.Date;
public class NewStudent extends javax.swing.JFrame {
    public void clear()
    {

        jTextField1.setText("");
        jTextField2.setText("");
        jTextField3.setText("");
        jTextField4.setText("");
        jTextField5.setText("");
        jTextField6.setText("");
        jTextField7.setText("");
        jTextField8.setText("");
        jComboBox1.removeAllItems();
        roomNumber();

    }
    public void roomNumber()
    {
        int i=0;
        try
        {
            Connection con=Connectionprovider.getCon();
            Statement st= con.createStatement();
            ResultSet rs= st.executeQuery("select *from room where activate='Yes' and roomStatus='Not
Booked'");
            while(rs.next())
            {
```

```

        i=1; // if room exist for booking
        jComboBox1.addItem(rs.getString(1)); //available rooms

    }
    if(i==0) //if room does not exists
    {
        jButton2.setVisible(false);
        JOptionPane.showMessageDialog(null,"all rooms are already booked");
        setVisible(false); //closing form
    }
}
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e);
}
}

public NewStudent() {
    initComponents();
}

private void formComponentShown(java.awt.event.ComponentEvent evt) {
    // TODO add your handling code here:
    roomNumber(); //for room allocation

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String mobileNo= jTextField1.getText();
    String name= jTextField2.getText();
    String fathername= jTextField3.getText();
    String mothername= jTextField4.getText();
    String email= jTextField5.getText();
    String address= jTextField6.getText();
    String college= jTextField7.getText();
    String adhar= jTextField8.getText();
    String roomnumber= (String)jComboBox1.getSelectedItem(); //selected room by user
    String status="living"; //living in hostel
    try
    {
        Connection con=Connectionprovider.getCon();
        PreparedStatement ps=con.prepareStatement("insert into student values(?,?,?,?,?,?,?,?,?,?)");
//for 10 values
        ps.setString(1, mobileNo);
        ps.setString(2, name);
        ps.setString(3, fathername);
        ps.setString(4, mothername);
        ps.setString(5, email);
        ps.setString(6,address );
        ps.setString(7, college);
        ps.setString(8, adhar);

```

```
ps.setString(9, roomnumber);
ps.setString(10, status);
ps.executeUpdate();
```

```
PreparedStatement ps1=con.prepareStatement("update room set roomStatus='Booked' where
number=?"); //room booked
```

```
ps1.setString(1, roomnumber);
ps1.executeUpdate();
```

```
JOptionPane.showMessageDialog(null,"sucessfully updated");
clear(); //to clear all fields
}
```

```
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e);
}
```

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    clear();
}
```

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    setVisible(false);
}
```

```
private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
}
```

```
public static void main(String args[]) {
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new NewStudent().setVisible(true);
        }
    });
}
```

```
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JComboBox<String> jComboBox1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel10;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
```

```
private javax.swing.JLabel jLabel7;  
private javax.swing.JLabel jLabel8;  
private javax.swing.JLabel jLabel9;  
private javax.swing.JTextField jTextField1;  
private javax.swing.JTextField jTextField2;  
private javax.swing.JTextField jTextField3;  
private javax.swing.JTextField jTextField4;  
private javax.swing.JTextField jTextField5;  
private javax.swing.JTextField jTextField6;  
private javax.swing.JTextField jTextField7;  
private javax.swing.JTextField jTextField8;  
// End of variables declaration  
}
```


- If the user choose update and delete student button from home page :

```
package hostelmanagementsystem;
import java.sql.*;
import javax.swing.JOptionPane;
import project.Connectionprovider;
public class UpdateDelete extends javax.swing.JFrame {
```

```
    public void clear()
    {
        jTextField1.setEditable(true);
        jTextField1.setText("");
        jTextField2.setText("");
        jTextField3.setText("");
        jTextField4.setText("");
        jTextField5.setText("");
        jTextField6.setText("");
        jTextField7.setText("");
        jTextField8.setText("");
        jTextField9.setText("");
        jComboBox1.removeAllItems();
    }
```

```
    public UpdateDelete() {
        initComponents();
    }
```

```
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        setVisible(false);
    }
```

```
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String mobileNo= jTextField1.getText();
```

```

try
{
    Connection con=Connectionprovider.getCon();
    Statement st=
con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
    ResultSet rs= st.executeQuery("select *from student where mobileNo='"+mobileNo+"'");

    if(rs.first())
    {
        jTextField1.setEditable(false); //user can not change it
        jTextField2.setText(rs.getString(2));
        jTextField3.setText(rs.getString(3));
        jTextField4.setText(rs.getString(4));
        jTextField5.setText(rs.getString(5));
        jTextField6.setText(rs.getString(6));
        jTextField7.setText(rs.getString(7));
        jTextField8.setText(rs.getString(8));
        jTextField9.setText(rs.getString(9));
        jTextField9.setEditable(false); //disable this for user
        if(rs.getString(10).equals("living")) //if living in hostel
        {

            jComboBox1.addItem("living"); // by def
            jComboBox1.addItem("leaved");
        }
        else
        {
            jComboBox1.addItem("leaved"); //by def
            jComboBox1.addItem("living");
        }
    }
    else
    {
        JOptionPane.showMessageDialog(null,"student does not exist");
        clear();

    }
}
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e);
}

}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:

```

```

String mobileNo= jTextField1.getText();
String name= jTextField2.getText();
String fathername= jTextField3.getText();
String mothername= jTextField4.getText();
String email= jTextField5.getText();
String address= jTextField6.getText();
String college= jTextField7.getText();
String adhar= jTextField8.getText();
String roomNo= jTextField9.getText();
String status= (String)jComboBox1.getSelectedItem();

try
{
    Connection con=Connectionprovider.getCon();
    Statement st= con.createStatement();
    if(status.equals("living"))

        st.executeUpdate("update room set roomStatus='Booked' where number='"+roomNo+"'");
//update room status to booked
    else
        st.executeUpdate("update room set roomStatus='Not Booked' where number='"+roomNo+"'");
    PreparedStatement ps=con.prepareStatement("update student set
name=?,father=?,mother=?,email=?,address=?,college=?,adhar=?,status=? where mobileNo=?");
    //for updating all details
    ps.setString(1, name);
    ps.setString(2, fathername);
    ps.setString(3, mothername);
    ps.setString(4, email);
    ps.setString(5, address);
    ps.setString(6, college);
    ps.setString(7, adhar);
    ps.setString(8, status);
    ps.setString(9, mobileNo);
    ps.executeUpdate();
    JOptionPane.showMessageDialog(null,"sucessfully updated");
    clear();
}
catch (Exception e)
{
    JOptionPane.showMessageDialog(null,e);
} }

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String mobileNo=jTextField1.getText();
    String roomNo=jTextField9.getText(); // for cancel booking of room i.e. changing status to not
booked

    try
    {
        Connection con=Connectionprovider.getCon();

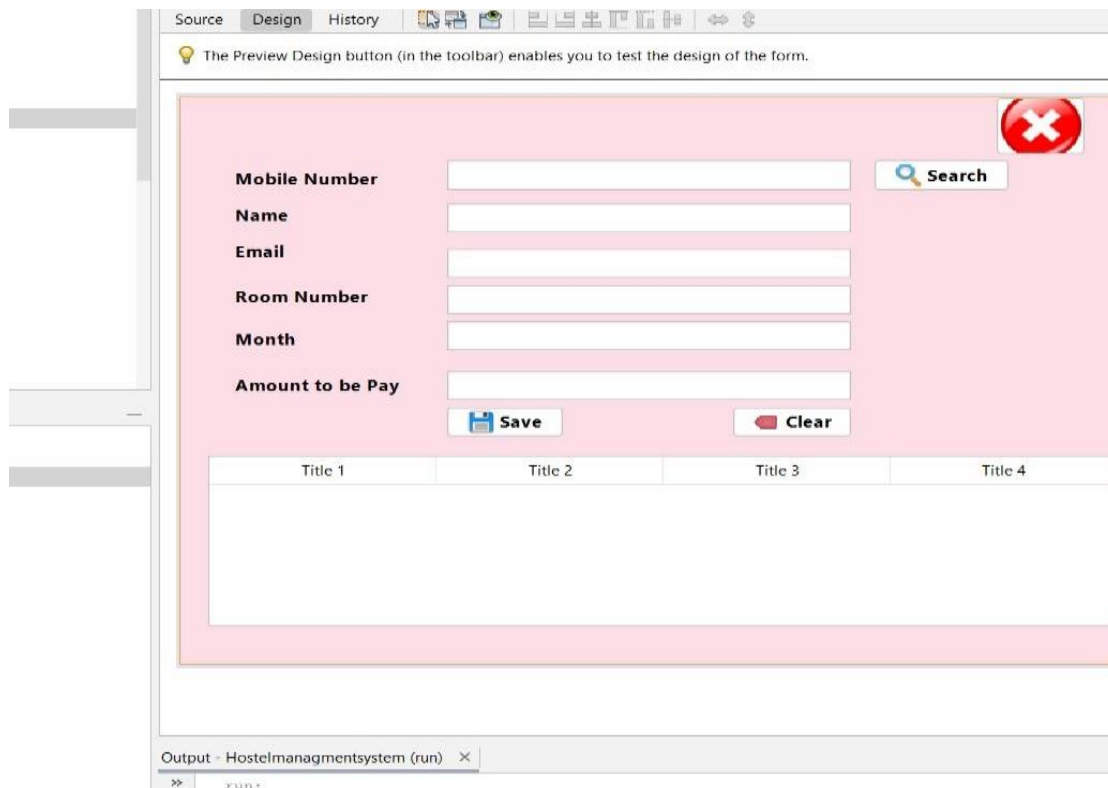
```

```

        Statement st= con.createStatement();
        st.executeUpdate("delete from student where mobileNo='"+mobileNo+"'");
        st.executeUpdate("update from roomStatus='Not Booked' where number='"+roomNo+"'");
        JOptionPane.showMessageDialog(null,"sucessfully deleted");
        clear(); }
    catch (Exception e)
    {
        JOptionPane.showMessageDialog(null,e);
    } }
    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        clear();
    }
    public static void main(String args[]) {
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new UpdateDelete().setVisible(true);
            }
        });
    }
    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
    private javax.swing.JButton jButton5;
    private javax.swing.JComboBox<String> jComboBox1;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel10;
    private javax.swing.JLabel jLabel11;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JLabel jLabel8;
    private javax.swing.JLabel jLabel9;
    private javax.swing.JTextField jTextField1;
    private javax.swing.JTextField jTextField2;
    private javax.swing.JTextField jTextField3;
    private javax.swing.JTextField jTextField4;
    private javax.swing.JTextField jTextField5;
    private javax.swing.JTextField jTextField6;
    private javax.swing.JTextField jTextField7;
    private javax.swing.JTextField jTextField8;
    private javax.swing.JTextField jTextField9;
    // End of variables declaration
}

```

- If the user chooses Student fees button from home page:



```
package hostelmanagementsystem;

import java.sql.*;
import javax.swing.JOptionPane;
import project.Connectionprovider;
import javax.swing.table.DefaultTableModel;
import java.text.SimpleDateFormat;
import java.util.Date;

public class StudentFees extends javax.swing.JFrame {

    public void clear()
    {
        jTextField1.setEditable(true);
        jTextField1.setText("");
        jTextField2.setText("");
        jTextField3.setText("");
        jTextField4.setText("");
        jTextField5.setText("");
        jTextField6.setText("");

        DefaultTableModel dtm=(DefaultTableModel) jTable1.getModel(); //to get all details from table
        dtm.setRowCount(0); //to delete all details from table
    }

    public void tableDetails()
    {
        DefaultTableModel dtm=(DefaultTableModel) jTable1.getModel();
```

```

dtm.setRowCount(0);
String mobileNo=jTextField1.getText();
try {
    Connection con=Connectionprovider.getCon();
    Statement st= con.createStatement();
    ResultSet rs= st.executeQuery("select *from fees where mobileNo='"+mobileNo+"'"); //when both
mobilenos are equal
    while(rs.next())
    {
        dtm.addRow(new Object[]{rs.getString(2),rs.getString(3)}); //for displaying month and amount
    }
} catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e);
}
}

public StudentFees() {
    initComponents();
}

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    String mobileNo= jTextField1.getText(); //saving part
    String month= jTextField5.getText();
    String amount= jTextField6.getText()
try {
    Connection con=Connectionprovider.getCon();
    PreparedStatement ps=con.prepareStatement("insert into fees values(?,?,?)");
    ps.setString(1, mobileNo);
    ps.setString(2, month);
    ps.setString(3, amount);
    ps.executeUpdate();
    tableDetails();
    JOptionPane.showMessageDialog(null,"sucessfully updated");
    clear(); }
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e); } }

```



```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    setVisible(false);
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

    String mobileNo= jTextField1.getText();
    SimpleDateFormat dFormat= new SimpleDateFormat("MMM-yyyy"); //for month
    Date date= new Date();
    String month= dFormat.format(date);
    try {
        Connection con=Connectionprovider.getCon();
        Statement st=
con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
        ResultSet rs= st.executeQuery("select *from student where mobileNo='"+mobileNo+"' and
status='living'");
        if(rs.first())
        {
            jTextField1.setEditable(false);
            jTextField2.setText(rs.getString(2));
            jTextField3.setText(rs.getString(5));
            jTextField4.setText(rs.getString(9));
            jTextField5.setText(month);
            jTextField6.setText("90000");
        } else
        {
            JOptionPane.showMessageDialog(null,"student does not exist");
            clear();
        }
        tableDetails(); //for displaying all details

        ResultSet rs1= st.executeQuery("select *from fees inner join student where student.status='living' and
fees.month='"+month+"' and fees.mobileNo='"+mobileNo+"' and student.mobileNo='"+mobileNo+"'");
        if(rs1.first())
        {
            jButton3.setVisible(false)
            JOptionPane.showMessageDialog(null,"Fees is already paid by student for this month");
        }
    }
    catch(Exception e)

```

```

    {
        JOptionPane.showMessageDialog(null,"student does not exist"); }
    }
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    clear();
}
public static void main(String args[]) {
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new StudentFees().setVisible(true);
    }
}); }
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
private javax.swing.JLabel jLabel7;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTable jTable1;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
private javax.swing.JTextField jTextField3;
private javax.swing.JTextField jTextField4;
private javax.swing.JTextField jTextField5;
private javax.swing.JTextField jTextField6;
// End of variables declaration
}

```

Similarly, with the help of various package, JFrame form, Classes and Swing Features we created the GUI and programmed them to work in a manner they should.

CONCLUSION:

The completion of the project went quiet well, I learned much new things while I was making it, and I get up to know various platforms which help us to learn about web application and about various features of JAVA language. I was able to learn the practical use of swing, MySQL techniques. This project helped me to learn the debugging the code and working with various libraries and functions of JAVA.

Overall working on this project was great experience as I came up with great piece of knowledge and understanding of the topic and this was my second project.

