**Log In Code:**

package newpackage;

import javax.swing.JOptionPane;

import javax.swing.JPasswordField;

public class LogIn extends javax.swing.JFrame {

/\*\*

\* Creates new form LogIn

\*/

public LogIn() {

initComponents();

}

/\*\*

\* This method is called from within the constructor to initialize the form.

\* WARNING: Do NOT modify this code. The content of this method is always

\* regenerated by the Form Editor.

\*/

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jTextField1 = new javax.swing.JTextField();

jLabel2 = new javax.swing.JLabel();

jButton1 = new javax.swing.JButton();

jButton2 = new javax.swing.JButton();

jCheckBox1 = new javax.swing.JCheckBox();

jPasswordField1 = new javax.swing.JPasswordField();

jLabel3 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jLabel1.setFont(new java.awt.Font("Yu Gothic UI", 1, 14)); // NOI18N

jLabel1.setText("Username");

getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(750, 240, -1, -1));

jTextField1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jTextField1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jTextField1ActionPerformed(evt);

}

});

getContentPane().add(jTextField1, new org.netbeans.lib.awtextra.AbsoluteConstraints(670, 280, 232, -1));

jLabel2.setFont(new java.awt.Font("Yu Gothic UI", 1, 14)); // NOI18N

jLabel2.setText("Password");

getContentPane().add(jLabel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(760, 340, -1, -1));

jButton1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/login.png"))); // NOI18N

jButton1.setText("Log In");

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

getContentPane().add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(740, 470, -1, -1));

jButton2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/Close.png"))); // NOI18N

jButton2.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton2ActionPerformed(evt);

}

});

getContentPane().add(jButton2, new org.netbeans.lib.awtextra.AbsoluteConstraints(1190, 50, -1, -1));

jCheckBox1.setText("Show Password");

jCheckBox1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jCheckBox1ActionPerformed(evt);

}

});

getContentPane().add(jCheckBox1, new org.netbeans.lib.awtextra.AbsoluteConstraints(810, 420, 118, -1));

getContentPane().add(jPasswordField1, new org.netbeans.lib.awtextra.AbsoluteConstraints(670, 370, 232, 32));

jLabel3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/login background.PNG"))); // NOI18N

getContentPane().add(jLabel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 1490, -1));

pack();

}// </editor-fold>

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

if(jTextField1.getText().equals("ahmed") && jPasswordField1.getText().equals("123")){

setVisible(false);

Selection s=new Selection();

s.main(null);

}

else{

JOptionPane.showMessageDialog(null,"invalid passwords");

}

}

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

dispose();

}

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

if(jCheckBox1.isSelected()){

jPasswordField1.setEchoChar((char)0);

}

else{

jPasswordField1.setEchoChar('\*');

} }

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

// TODO add your handling code here:

}

/\*\*

\* @param args the command line arguments

\*/

public static void main(String args[]) {

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(LogIn.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(LogIn.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(LogIn.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(LogIn.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* 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.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.JPasswordField jPasswordField1;

private javax.swing.JTextField jTextField1;

// End of variables declaration

}

**ManagerGui Class:**

package newpackage;

import javax.swing.JOptionPane;

public class ManagerGui extends javax.swing.JFrame {

HostelManager hm;

StudentGui sg;

RoomGui rg=new RoomGui();

Student s=new Student();

public ManagerGui() {

initComponents();

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

jLabel4 = new javax.swing.JLabel();

jLabel5 = new javax.swing.JLabel();

hn = new javax.swing.JTextField();

adr = new javax.swing.JTextField();

hcap = new javax.swing.JTextField();

rcap = new javax.swing.JTextField();

save = new javax.swing.JButton();

addRoom = new javax.swing.JButton();

remRoom = new javax.swing.JButton();

jButton2 = new javax.swing.JButton();

jButton1 = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

setBackground(new java.awt.Color(204, 255, 204));

setLocation(new java.awt.Point(400, 50));

getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jLabel1.setFont(new java.awt.Font("Snap ITC", 1, 14)); // NOI18N

jLabel1.setText("Hostel Manager");

getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(190, 30, 210, 40));

jLabel2.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

jLabel2.setText("Hostel name");

getContentPane().add(jLabel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(41, 104, -1, -1));

jLabel3.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

jLabel3.setText("Address");

getContentPane().add(jLabel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(41, 148, -1, -1));

jLabel4.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

jLabel4.setText("Hostel Capacity");

getContentPane().add(jLabel4, new org.netbeans.lib.awtextra.AbsoluteConstraints(41, 192, -1, -1));

jLabel5.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

jLabel5.setText("Room Capacity");

getContentPane().add(jLabel5, new org.netbeans.lib.awtextra.AbsoluteConstraints(41, 236, -1, -1));

hn.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

getContentPane().add(hn, new org.netbeans.lib.awtextra.AbsoluteConstraints(241, 101, 253, -1));

adr.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

getContentPane().add(adr, new org.netbeans.lib.awtextra.AbsoluteConstraints(241, 145, 253, -1));

hcap.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

getContentPane().add(hcap, new org.netbeans.lib.awtextra.AbsoluteConstraints(241, 189, 253, -1));

rcap.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

getContentPane().add(rcap, new org.netbeans.lib.awtextra.AbsoluteConstraints(241, 233, 253, -1));

save.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

save.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/save.png"))); // NOI18N

save.setText("Save");

save.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

saveActionPerformed(evt);

}

});

getContentPane().add(save, new org.netbeans.lib.awtextra.AbsoluteConstraints(409, 425, -1, -1));

addRoom.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

addRoom.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/room.png"))); // NOI18N

addRoom.setText("Add Room");

addRoom.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

addRoomActionPerformed(evt);

}

});

getContentPane().add(addRoom, new org.netbeans.lib.awtextra.AbsoluteConstraints(73, 420, -1, -1));

remRoom.setFont(new java.awt.Font("Segoe UI Historic", 1, 14)); // NOI18N

remRoom.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/room.png"))); // NOI18N

remRoom.setText("Remove Room");

remRoom.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

remRoomActionPerformed(evt);

}

});

getContentPane().add(remRoom, new org.netbeans.lib.awtextra.AbsoluteConstraints(241, 420, -1, -1));

jButton2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/login.png"))); // NOI18N

jButton2.setText("Back");

jButton2.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton2ActionPerformed(evt);

}

});

getContentPane().add(jButton2, new org.netbeans.lib.awtextra.AbsoluteConstraints(658, 462, -1, -1));

jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/Close.png"))); // NOI18N

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

getContentPane().add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(648, 28, -1, -1));

pack();

}// </editor-fold>

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

String n=hn.getText();

String adrs=adr.getText();

int hc=Integer.valueOf(hcap.getText());

int rc=Integer.valueOf(rcap.getText());

hm=new HostelManager(n, adrs, hc, rc);

sg=new StudentGui();

sg.setId(s.count);

hn.setText(null);adr.setText(null);hcap.setText(null);rcap.setText(null);

//JOptionPane.showMessageDialog(null, "Hostel Info Saved Successfully");

System.out.println(rc);

sg.setRoomCapacity(rc);

sg.setVisible(true);

rg.setHm(hm);

dispose();

// sg=new StudentGui();

// sg.main(null);

// sg.setVisible(true);

}

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

int currentHostelCapacity = Integer.parseInt(hcap.getText());

currentHostelCapacity += 1;

hcap.setText(String.valueOf(currentHostelCapacity));

}

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

int currentHostelCapacity = Integer.parseInt(hcap.getText());

if (currentHostelCapacity > 1) {

currentHostelCapacity -= 1;

hcap.setText(String.valueOf(currentHostelCapacity));

}

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

dispose();

}

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

Selection s=new Selection();

s.setVisible(true);

dispose();

}

public static void main(String args[]) {

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(ManagerGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(ManagerGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(ManagerGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(ManagerGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

ManagerGui managerGui = new ManagerGui();

managerGui.setVisible(true);

// new StudentGui().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JButton addRoom;

private javax.swing.JTextField adr;

private javax.swing.JTextField hcap;

private javax.swing.JTextField hn;

private javax.swing.JButton jButton1;

private javax.swing.JButton jButton2;

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.JTextField rcap;

private javax.swing.JButton remRoom;

private javax.swing.JButton save;

// End of variables declaration

}

**Manager Java Class Code:**

package newpackage;

import java.util.ArrayList;

import java.util.List;

public class HostelManager {

private static HostelManager instance;

private Hostel hostel;

private List<Student> students; // Store students for easy access

private Room ro;

public HostelManager(){

}

public HostelManager(String name, String ad, int cap,int rc) {

// Initialize the hostel (you can provide the initial values)

hostel = new Hostel(name, ad,cap);

students = new ArrayList<>(); // Initialize the students list

ro=new Room(0, rc);

}

//

// public static HostelManager getInstance() {

// if (instance == null) {

// instance = new HostelManager();

// }

// return instance;

// }

// Method to add a room to the hostel

public int addRoom() {

int rmnmbr=0;

rmnmbr=rmnmbr+1;

return rmnmbr;

}

// Method to remove a room from the hostel

public void removeRoom(Room room) {

hostel.removeRoom(room);

}

// Method to add a student to the manager

public void addStudent(Student student) {

students.add(student);

}

// Method to remove a student from the manager

public void removeStudent(Student student) {

students.remove(student);

}

// Method to check a student into a room

// public void checkIn(Student student, int roomNumber) {

// Room room = findRoomByNumber(roomNumber);

// if (room != null && room.checkAvailability()) {

// room.allocate();

// student.checkIn(roomNumber);

// student.setRoomNumber(roomNumber);

// addStudent(student); // Add student to manager's list

// }

// }

// Method to check a student out of a room

// public void checkOut(Student student) {

// int roomNumber = student.getRoomNumber();

// if (roomNumber != -1) {

// Room room = findRoomByNumber(roomNumber);

// if (room != null) {

// room.vacate();

// student.checkOut();

// removeStudent(student); // Remove student from manager's list

// }

// }

// }

// Helper method to find a room by its number

private Room findRoomByNumber(int roomNumber) {

for (Room room : hostel.getRooms()) {

if (room.getRoomNumber() == roomNumber) {

return room;

}

}

return null;

}

// Getter for hostel's available rooms

public List<Room> getAvailableRooms() {

return hostel.getAvailableRooms();

}

// Getter for students list

public List<Student> getStudents() {

return students;

}

// Other methods for managing hostel-related operations

public Hostel getCap(){

return hostel;

}

public Room getRoomCap(){

return ro;

}

}

**Selection Option:**

package newpackage;

import javax.swing.JOptionPane;

public class Selection extends javax.swing.JFrame {

public Selection() {

initComponents();

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jButton1 = new javax.swing.JButton();

jButton2 = new javax.swing.JButton();

jButton3 = new javax.swing.JButton();

jButton4 = new javax.swing.JButton();

jButton5 = new javax.swing.JButton();

jButton6 = new javax.swing.JButton();

jLabel1 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jButton1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/room.png"))); // NOI18N

jButton1.setText("Hostel");

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

getContentPane().add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(25, 192, 168, -1));

jButton2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/room.png"))); // NOI18N

jButton2.setText("Room");

jButton2.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton2ActionPerformed(evt);

}

});

getContentPane().add(jButton2, new org.netbeans.lib.awtextra.AbsoluteConstraints(25, 246, 168, -1));

jButton3.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/new student.png"))); // NOI18N

jButton3.setText("Students");

getContentPane().add(jButton3, new org.netbeans.lib.awtextra.AbsoluteConstraints(25, 313, 168, -1));

jButton4.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/new student.png"))); // NOI18N

jButton4.setText("Hostel Manager");

jButton4.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton4ActionPerformed(evt);

}

});

getContentPane().add(jButton4, new org.netbeans.lib.awtextra.AbsoluteConstraints(25, 127, -1, -1));

jButton5.setFont(new java.awt.Font("Simplified Arabic Fixed", 1, 14)); // NOI18N

jButton5.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/logout.png"))); // NOI18N

jButton5.setText("Log Out");

jButton5.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton5ActionPerformed(evt);

}

});

getContentPane().add(jButton5, new org.netbeans.lib.awtextra.AbsoluteConstraints(910, 20, -1, -1));

jButton6.setFont(new java.awt.Font("Simplified Arabic Fixed", 1, 14)); // NOI18N

jButton6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/Close.png"))); // NOI18N

jButton6.setText("Exit");

jButton6.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton6ActionPerformed(evt);

}

});

getContentPane().add(jButton6, new org.netbeans.lib.awtextra.AbsoluteConstraints(1090, 20, -1, -1));

jLabel1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/home background.PNG"))); // NOI18N

jLabel1.setText("jLabel1");

getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(-3, -22, 1430, 810));

pack();

}// </editor-fold>

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

}

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

RoomGui r=new RoomGui();

r.main(null);

}

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

int a=JOptionPane.showConfirmDialog(null,"Do you really want to LogOut","Select",JOptionPane.YES\_NO\_OPTION);

if(a==0){

setVisible(false);

new LogIn().setVisible(true);

}

}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {

int a=JOptionPane.showConfirmDialog(null,"Do you really want to Exit","Select",JOptionPane.YES\_NO\_OPTION);

if(a==0){

System.exit(0);

}

}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

//S HostelManager hm=new HostelManager();

setVisible(false);

ManagerGui mg=new ManagerGui();

mg.setVisible(true);

}

public static void main(String args[]) {

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(Selection.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(Selection.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(Selection.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(Selection.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new Selection().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.JButton jButton6;

private javax.swing.JLabel jLabel1;

// End of variables declaration

}

**Student Info GUI:**

package newpackage;

import java.util.ArrayList;

import java.util.LinkedHashMap;

import java.util.List;

import java.util.Map;

import javax.swing.JOptionPane;

public class StudentGui extends javax.swing.JFrame {

Student s;

RoomGui rg=new RoomGui();

Room room=new Room();

int countSameRoom = 0;

int capacity;

public int count=0;

private Map<Integer, Student> students; // Use a LinkedHashMap

private int currentStudentID;

private List<Room> roomList=new ArrayList<>();

public StudentGui() {

initComponents();

students = new LinkedHashMap<>();

currentStudentID = 0;

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

jLabel4 = new javax.swing.JLabel();

jLabel5 = new javax.swing.JLabel();

jLabel6 = new javax.swing.JLabel();

jLabel7 = new javax.swing.JLabel();

jLabel8 = new javax.swing.JLabel();

jTextField1 = new javax.swing.JTextField();

id\_text = new javax.swing.JTextField();

jTextField3 = new javax.swing.JTextField();

jTextField4 = new javax.swing.JTextField();

jTextField5 = new javax.swing.JTextField();

jTextField6 = new javax.swing.JTextField();

jTextField7 = new javax.swing.JTextField();

jButton1 = new javax.swing.JButton();

jLabel9 = new javax.swing.JLabel();

tfRn = new javax.swing.JTextField();

jButton2 = new javax.swing.JButton();

jButton3 = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

setLocation(new java.awt.Point(0, 0));

jLabel1.setText("Student Registration");

jLabel2.setText("Student Name");

jLabel3.setText("Student Id");

jLabel4.setText("Phone No");

jLabel5.setText("Address");

jLabel6.setText("City");

jLabel7.setText("CNIC");

jLabel8.setText("Date of Birth");

id\_text.setEditable(false);

id\_text.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

id\_textActionPerformed(evt);

}

});

jButton1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/save.png"))); // NOI18N

jButton1.setText("Save");

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

jLabel9.setText("Room No");

jButton2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/Close all jframe.png"))); // NOI18N

jButton2.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton2ActionPerformed(evt);

}

});

jButton3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/back.png"))); // NOI18N

jButton3.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton3ActionPerformed(evt);

}

});

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(51, 51, 51)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel2)

.addComponent(jLabel3)

.addComponent(jLabel4)

.addComponent(jLabel5)

.addComponent(jLabel6)

.addComponent(jLabel7)

.addComponent(jLabel8)

.addComponent(jLabel9))

.addGap(98, 98, 98)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jTextField7, javax.swing.GroupLayout.DEFAULT\_SIZE, 269, Short.MAX\_VALUE)

.addComponent(jTextField1)

.addComponent(id\_text)

.addComponent(jTextField3)

.addComponent(jTextField4)

.addComponent(jTextField5)

.addComponent(jTextField6)

.addComponent(tfRn)))

.addGroup(layout.createSequentialGroup()

.addGap(155, 155, 155)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addComponent(jButton1)

.addGap(68, 68, 68)

.addComponent(jButton3)

.addGap(0, 0, Short.MAX\_VALUE))

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel1)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jButton2)

.addGap(19, 19, 19)))))

.addContainerGap())

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(14, 14, 14)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel1)

.addComponent(jButton2))

.addGap(23, 23, 23)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel2)

.addComponent(jTextField1))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel3)

.addComponent(id\_text, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel4)

.addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel5)

.addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel6)

.addComponent(jTextField5, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel7)

.addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel8)

.addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel9)

.addComponent(tfRn, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(28, 28, 28)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jButton1)

.addComponent(jButton3))

.addContainerGap(71, Short.MAX\_VALUE))

);

pack();

}// </editor-fold>

private void id\_textActionPerformed(java.awt.event.ActionEvent evt) {

}

public void setId(int c){

id\_text.setText(Integer.toString(c));

}

public void setRoomCapacity(int t){

capacity=t;

}

public int getAvlbRoom(){

if(capacity>0){

System.out.println("1lol"+capacity);

return --capacity;

}

else{

return 0;

}

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String n=jTextField1.getText();

int i=++currentStudentID;

String ph=jTextField3.getText();

String ad=jTextField4.getText();

String ct=jTextField5.getText();

String cn=jTextField6.getText();

String db=jTextField7.getText();

int r=Integer.valueOf(tfRn.getText());

roomList.add(room);

s=new Student(n, i, ph, ad, cn, ct, db, r);

students.put(i, s);

int size=students.size();

System.out.println("size of Students:"+size);

jTextField1.setText(null);id\_text.setText(null);jTextField3.setText(null); jTextField4.setText(null);jTextField5.setText(null);jTextField6.setText(null);jTextField7.setText(null);tfRn.setText(null);

JOptionPane.showMessageDialog(null, "Student Info Saved Successfully");

// rg.setAccomadated(size);

System.out.println("loosi " +r);

for (Student student : students.values()) {

if (student.getRoomNumber() == r) {

++rg.cnt;

// System.out.println("std room"+student.getRoomNumber()+"count"+rg.cnt);

if (rg.cnt >=2) {

// rg = new RoomGui(r);

rg.setRoom(r);

rg.setRoomCapacity(capacity);

// System.out.println("hi"+capacity);

rg.setAvailableR(getAvlbRoom());

System.out.println(r);

rg.setVisible(true);

this.setVisible(false);

break;

}

}

}

id\_text.setText(Integer.toString(s.count++));

}

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

dispose();

}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {

Selection s=new Selection();

s.setVisible(true);

dispose();

}

public static void main(String args[]) {

StudentGui studentGui = new StudentGui();

studentGui.setVisible(true);

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new StudentGui().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JTextField id\_text;

private javax.swing.JButton jButton1;

private javax.swing.JButton jButton2;

private javax.swing.JButton jButton3;

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.JLabel jLabel9;

private javax.swing.JTextField jTextField1;

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 tfRn;

// End of variables declaration

}  
  
**Student java Code**

package newpackage;

public class Student {

private String name;

private int studentID;

private int roomNumber;

private String phoneNo;

private String address;

private String cnic;

private String city;

private String dob;

public static int count=0;

public Student(){

this.name = "";

this.studentID = 0;

this.phoneNo="";

this.address="";

this.city="";

this.cnic="";

this.dob="";

this.roomNumber = 0; // Initialize with -1 to indicate no room assignment

count++;

}

public Student(String name, int studentID, String phoneNo,String address,String cnic,String city,String dob,int roomNumber) {

this.name = name;

this.studentID = studentID;

this.phoneNo=phoneNo;

this.address=address;

this.city=city;

this.cnic=cnic;

this.dob=dob;

this.roomNumber = roomNumber; // Initialize with -1 to indicate no room assignment

count++;

}

// Method to check a student into a room

public void checkIn(int roomNumber) {

this.roomNumber = roomNumber;

}

// Method to check a student out of a room

public void checkOut() {

this.roomNumber = -1;

}

// Method to pay fees (assuming a simplified fee payment mechanism)

public void payFees(double amount) {

// Logic to update payment status or account balance

}

// Method to display student information

public void displayInfo() {

System.out.println("Name: " + name);

System.out.println("Student ID: " + studentID);

if (roomNumber != -1) {

System.out.println("Room Number: " + roomNumber);

} else {

System.out.println("Not assigned to a room.");

}

}

// Getters and setters for attributes

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public int getStudentID() {

return studentID;

}

public void setStudentID(int studentID) {

this.studentID = studentID;

}

public int getRoomNumber() {

return roomNumber;

}

public void setRoomNumber(int roomNumber) {

this.roomNumber = roomNumber;

}

@Override

public String toString() {

return "Student{" +

"name='" + name + '\'' +

", studentID=" + studentID +

", roomNumber=" + (roomNumber != -1 ? roomNumber : "Not assigned") +

'}';

}

}

**Room GUI:**

package newpackage;

import javax.swing.JFrame;

import javax.swing.JTextField;

public class RoomGui extends javax.swing.JFrame {

public int cnt=0;

private int roomNumber;

StudentGui sg;

Student s;

HostelManager hm=new HostelManager();

// HostelManager hm;

// private JTextField rmN;

public RoomGui() {

initComponents();

}

public RoomGui(int roomNumber) {

initComponents();

System.out.println(roomNumber);

// rmN.setText(Integer.toString(roomNumber));

}

public void setRoom(int r){

this.roomNumber=r;

rmN.setText(Integer.toString(roomNumber));

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

rcfix = new javax.swing.JTextField();

jLabel4 = new javax.swing.JLabel();

avblRoom = new javax.swing.JTextField();

okay = new javax.swing.JButton();

check = new javax.swing.JButton();

rmN = new javax.swing.JTextField();

jButton1 = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

setLocation(new java.awt.Point(0, 0));

getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jLabel1.setFont(new java.awt.Font("Yu Gothic UI", 1, 14)); // NOI18N

jLabel1.setText("Room Info");

getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(293, 144, -1, -1));

jLabel2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jLabel2.setText("Room No");

getContentPane().add(jLabel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(185, 198, -1, -1));

jLabel3.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jLabel3.setText("Room capacity");

getContentPane().add(jLabel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(185, 239, -1, -1));

rcfix.setEditable(false);

rcfix.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

rcfix.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

rcfixActionPerformed(evt);

}

});

getContentPane().add(rcfix, new org.netbeans.lib.awtextra.AbsoluteConstraints(365, 239, 165, -1));

jLabel4.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

jLabel4.setText("Available Capacity");

getContentPane().add(jLabel4, new org.netbeans.lib.awtextra.AbsoluteConstraints(185, 283, -1, -1));

avblRoom.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

getContentPane().add(avblRoom, new org.netbeans.lib.awtextra.AbsoluteConstraints(365, 283, 165, -1));

okay.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

okay.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/okayjani.jpg"))); // NOI18N

okay.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

okayActionPerformed(evt);

}

});

getContentPane().add(okay, new org.netbeans.lib.awtextra.AbsoluteConstraints(272, 387, -1, -1));

check.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

check.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/back.png"))); // NOI18N

check.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

checkActionPerformed(evt);

}

});

getContentPane().add(check, new org.netbeans.lib.awtextra.AbsoluteConstraints(359, 387, -1, -1));

rmN.setEditable(false);

rmN.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N

getContentPane().add(rmN, new org.netbeans.lib.awtextra.AbsoluteConstraints(365, 195, 165, -1));

jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/Close.png"))); // NOI18N

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

getContentPane().add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(603, 42, -1, -1));

pack();

}// </editor-fold>

public void setHm(HostelManager h){

hm=h;

}

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

}

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

// roomNumber =s.getRoomNumber();

// rmfix.setText(String.valueOf(roomNumber)); // Set the value of rmfix text field

setVisible(false );

}

public void setRoomCapacity(int roomCapacity) {

System.out.println("hi " +roomCapacity);

rcfix.setText(Integer.toString(roomCapacity));

}

public void setAvailableR(int x){

System.out.println(x);

avblRoom.setText(Integer.toString(x));

}

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

StudentGui sg=new StudentGui();

sg.setVisible(true);

dispose();

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

dispose();

}

public static void main(String args[]) {

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(RoomGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(RoomGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(RoomGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(RoomGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new RoomGui().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JTextField avblRoom;

private javax.swing.JButton check;

private javax.swing.JButton jButton1;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JLabel jLabel3;

private javax.swing.JLabel jLabel4;

private javax.swing.JButton okay;

private javax.swing.JTextField rcfix;

private javax.swing.JTextField rmN;

// End of variables declaration

}

**Room Java Code:**

package newpackage;

import java.util.ArrayList;

import java.util.List;

public class Room {

private int roomNumber;

private int capacity;

private List<Student> occupants;

private boolean available;

public Room(){

}

public Room(int roomNumber, int capacity) {

this.roomNumber = roomNumber;

this.capacity = capacity;

this.occupants = new ArrayList<>();

this.available = true; // Assume room is available by default

}

// Method to add a student to the room

public void addStudent(Student student) {

if (occupants.size() < capacity) {

occupants.add(student);

student.setRoomNumber(roomNumber);

}

}

// Method to remove a student from the room

public void removeStudent(Student student) {

occupants.remove(student);

student.setRoomNumber(-1); // Set student's room number to indicate they're not in any room

}

// Method to check if the room is available

public boolean isAvailable() {

return available && occupants.size() < capacity;

}

// Getters and setters for attributes

public int getRoomNumber() {

return roomNumber;

}

public void setRoomNumber(int roomNumber) {

this.roomNumber = roomNumber;

}

public int getCapacity() {

return capacity;

}

public void setCapacity(int capacity) {

this.capacity = capacity;

}

public List<Student> getOccupants() {

return occupants;

}

public boolean isAvailable1() {

return available;

}

public void setAvailable(boolean available) {

this.available = available;

}

}

**Hostel GUI:**

package newpackage;

import javax.swing.JOptionPane;

public class HostelGui extends javax.swing.JFrame {

Hostel h;

/\*\* Creates new form HostelGui \*/

public HostelGui() {

initComponents();

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

hn = new javax.swing.JTextField();

adrs = new javax.swing.JTextField();

cap = new javax.swing.JTextField();

jButton1 = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

jLabel1.setText("Hostel Name");

jLabel2.setText("Address");

jLabel3.setText("Capacity");

jButton1.setText("Save");

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(47, 47, 47)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel1)

.addComponent(jLabel2)

.addComponent(jLabel3))

.addGap(92, 92, 92)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

.addComponent(cap, javax.swing.GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(adrs)

.addComponent(hn)))

.addGroup(layout.createSequentialGroup()

.addGap(144, 144, 144)

.addComponent(jButton1)))

.addContainerGap(15, Short.MAX\_VALUE))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(49, 49, 49)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel1)

.addComponent(hn, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel2)

.addComponent(adrs, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel3)

.addComponent(cap, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(60, 60, 60)

.addComponent(jButton1)

.addContainerGap(67, Short.MAX\_VALUE))

);

pack();

}// </editor-fold>

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

System.out.println("Save");

String hname=hn.getText();

String adrss=adrs.getText();

//total no guests living in the hostel at a given time

int capa=Integer.valueOf(cap.getText());

h=new Hostel(hname,adrss,capa);

hn.setText(null);cap.setText(null);adrs.setText(null);

JOptionPane.showMessageDialog(null, "Saved");

}

public static void main(String args[]) {

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(HostelGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(HostelGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(HostelGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(HostelGui.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new HostelGui().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JTextField adrs;

private javax.swing.JTextField cap;

private javax.swing.JTextField hn;

private javax.swing.JButton jButton1;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JLabel jLabel3;

// End of variables declaration

}

**Hostel Class:**

package newpackage;

import java.util.ArrayList;

import java.util.List;

public class Hostel {

private String name;

private String address;

private int capacity;

private List<Room> rooms;

public Hostel(String name, String address, int capacity) {

System.out.println("\nInside");

this.name = name;

this.address = address;

this.capacity = capacity;

this.rooms = new ArrayList<>();

}

public void addRoom(Room room) {

rooms.add(room);

}

public void removeRoom(Room room) {

rooms.remove(room);

}

public List<Room> getAvailableRooms() {

List<Room> availableRooms = new ArrayList<>();

for (Room room : rooms) {

if (room.isAvailable()) {

availableRooms.add(room);

}

}

return availableRooms;

}

// Getters for attributes

public String getName() {

return name;

}

public String getAddress() {

return address;

}

public int getCapacity() {

return capacity;

}

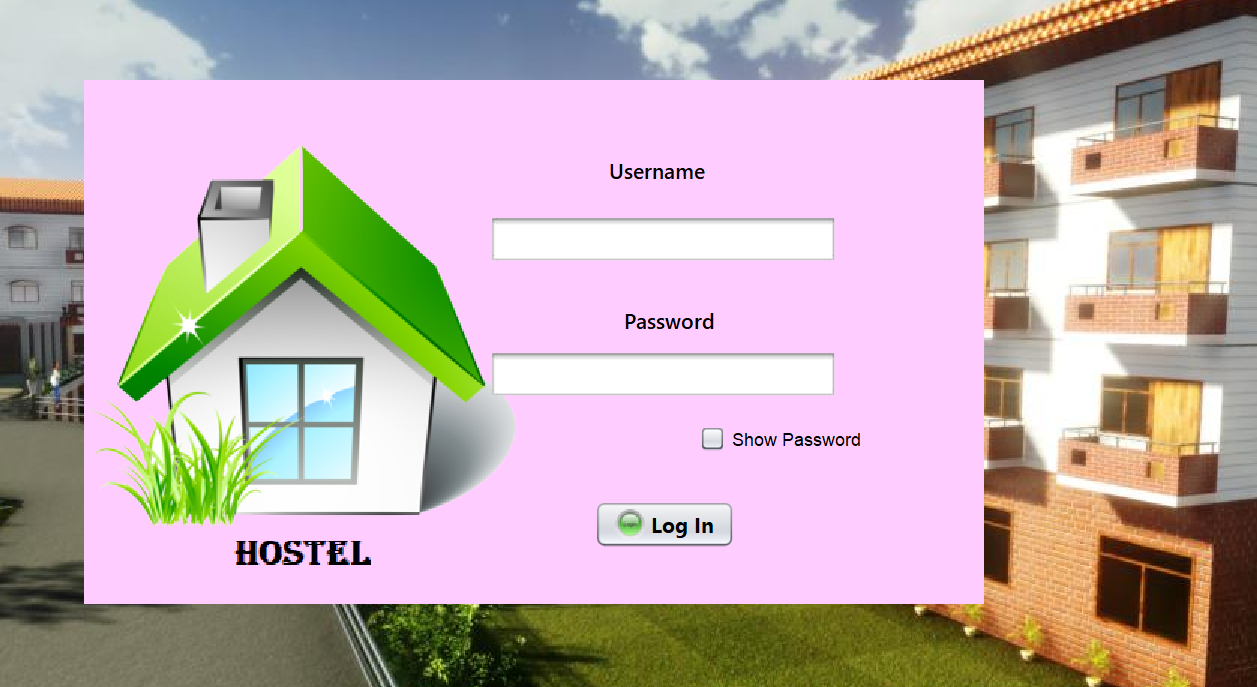
public List<Room> getRooms() {

return rooms;

}

}

**OutPut ScreenShot:**

****

