

MICRO-PROJECT REPORT

"Hostel Management System"

Under the subject

"Advanced Java Programming [22517]"

Submitted by

Sr No.	Roll	Student name
	No.	
1]	2243	Patil Vaishnavi Ashok
2]	2245	Mujawar Sayama Dilawar

Under guidance of

Mr. Emekar S.P.

Department of Computer Engineering
Government Polytechnic, Karad

CERTIFICATE

This is to certify that the project work titled

"Hostel Management System"

Done by

PATIL VAISHNAVI A. MUJAWAR SAYAMA D.

of V semester Computer Engineering in the year 2020-21 in partial fulfilment of the project titled as "Hostel Management System" for subject Advanced Java Programming under the guidance of Mr. S.P.Emekar and submitted it to the Department of Computer Engineering at Government Polytechnic, Karad.

Mrs. S. B. Patil

Mr. S.P.Emekar

(Head of the Department)

(Project Guide)

Acknowledgement

We take an opportunity to thank all those who have directly and indirectly

inspired, directed and assisted us towards successful completion of this project

report.

We express our sincere thanks to the Principal, **Dr. Patil R. K. & the Head**

of Department Prof. S.B. Patil and project guide Mr. S.P.Emekar for having

us allowed to submit this report as part of our academics learning.

We express our sincere thanks to Lecturer in Government Polytechnic Karad

for encouragement throughout the project report and guideline in designing &

working out this project.

We express our sense of gratitude towards our friend and parents for their

constant moral support during project report.

Place: Government Polytechnic, Karad

Date: / /2021

Yours Sincerely,

2243 Miss.Patil Vaishnavi A.

2245- Miss.Mujawar Sayama D.

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Micro-Project Report

"Hostel Management System"

1.0 Rationale:-

Hostel Management system is a Customize and user-friendly software for Hostel. Which Provides hostel information. It helps admin to manage-Student Record.

This system is design for hostel management which helps them to save the records of the of the students about their rooms and other things. It helps them from manual work from which it is very difficult to find the record of the student.

In this project we implement this system. We include four languages like Java and Advance Java for that user need to login to the system.

2.0 Aims/Benefits of the Micro-Project:-

- 1] We understood the basic concepts of Hostel Management System.
- 2] We are able to reduce the efforts and save the time

3.0 Course Outcomes Achieved:-

- 1] We are able to develop program using GUI framework.
- 2] Also we can handle Events of AWT and Swing component.
- 3] We also develop program using database.
- 4] We are able to develop program to handle events in java programming

4.0 Literature Review:-

1]https://www.swiggy.com/food/delivery

2] https://www.food-ordering.com

5.0 Actual Methodology Followed:-.

Code:

Login Page

```
package hostel;
import javax.imageio.ImageIO;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.awt.image.BufferedImage;
import java.io.File;
import java.io.IOException;
public class Login implements ActionListener
     JFrame f;
    Login()
             f=new JFrame("Login page");
              toSetBackground(f);
    f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
              GridBagLayout gb = new GridBagLayout();
              GridBagConstraints gbc = new
GridBagConstraints();
              gbc.insets=new Insets(5,5,5,5);
              f.setSize(400,400);
              f.setVisible(true);
              f.setLayout(gb);
              gbc.fill = GridBagConstraints.HORIZONTAL;
              JTextField name = new JTextField(" ",15);
              gbc.gridx = 0;
              gbc.ipady=20;
              gbc.gridy = 0;
              gbc.gridwidth=3;
              f.add(name,gbc);
              JPasswordField password = new
JPasswordField(15);
              password.setEchoChar('*');
```

```
gbc.gridx = 0;
              gbc.gridy = 1;
              gbc.ipady=20;
              gbc.gridwidth=3;
              f.add(password,gbc);
              JButton login = new JButton("Login");
              login.setFont(new
Font("Cambria", Font.BOLD, 20));
              gbc.gridx=0;
              gbc.gridy=2;
              gbc.ipady=20;
              gbc.gridwidth = 3;
              f.add(login,gbc);
              login.addActionListener(new ActionListener(){
                   public void actionPerformed(ActionEvent e)
                      {
                          String user = name.getText();
                          String pass= password.getText();
                          System.out.println(user);
         System.out.println(pass);
           if((pass.equals("admin")) )
         {
              f.dispose();
              new Info();
      else
             {
         JOptionPane.showMessageDialog(f, "Login Invalid");
           }
    });
      public void toSetBackground(JFrame obj)
           BufferedImage img = null;
            try
```

► Information page:

```
package hostel;
import java.awt.*;
import java.awt.image.BufferedImage;
import java.io.File;
import java.io.IOException;
import java.sql.SQLException;
import java.awt.event.*;
import javax.imageio.ImageIO;
import javax.swing.*;
import java.util.*;
import java.util.*;
import java.sql.*;
    public class Info{
        Button Exit;
        JFrame f;
public Info() {
```

```
f =new JFrame();
         GridBagConstraints gbc= new GridBagConstraints();
         toSetBackground(f);
         f.setSize(600,600);
         f.setVisible(true);
         f.setLayout(new GridBagLayout());
         gbc.insets=new Insets(10,10,10,10);
         gbc.gridx=0;
         gbc.gridy=0;
         JLabel 11=new JLabel("Hostel Management System");
         11.setFont(new Font("TimesRoman", Font.BOLD, 20));
         11.setForeground(Color.RED);
         f.add(11,gbc);
         gbc.fill= GridBagConstraints.HORIZONTAL;
         gbc.ipady=20;
         gbc.gridx=0;
         gbc.gridy=1;
         gbc.gridwidth=3;
         Button Hostel=new Button("Hostel Details");
         Hostel.addActionListener(new ActionListener()
             {
                  public void actionPerformed(ActionEvent e)
                     f.dispose();
                     new HostelDetails();
                 }
         });
         f.add(Hostel,gbc);
         Hostel.setForeground(Color.BLACK);
         Hostel.setBackground(Color.cyan);
         Hostel.setFont(new
Font("TimesRoman", Font.BOLD, 20));
         gbc.gridx=1;
         gbc.gridy=1;
         Button Registration=new Button("Student
Registration");
```

```
Registration.addActionListener(new ActionListener()
           public void actionPerformed(ActionEvent e)
            {
                    f.dispose();
                     new SRegistration();
              }
         });
         f.add(Registration,gbc);
         Registration.setForeground(Color.BLACK);
         Registration.setBackground(Color.cyan);
         Registration.setFont(new
Font("TimesRoman", Font.BOLD, 20));
         gbc.gridx=0;
         gbc.gridy=2;
         Button Details=new Button("Student Record ");
         Details.addActionListener(new ActionListener()
           public void actionPerformed(ActionEvent e)
               {
                   f.dispose();
                   new Studentdetails();
               }
          });
         f.add(Details,gbc);
         Details.setForeground(Color.BLACK);
         Details.setBackground(Color.cyan);
         Details.setFont(new
Font("TimesRoman", Font.BOLD, 20));
         gbc.gridx=0;
         gbc.gridy=3;
         Button Exit=new Button("Exit");
         f.add(Exit,gbc);
         Exit.setForeground(Color.BLACK);
         Exit.setBackground(Color.cyan);
```

```
Exit.setFont(new Font("TimesRoman",Font.BOLD,20));
         Exit.addActionListener(new ActionListener()
         {
            public void actionPerformed(ActionEvent e)
               f.setVisible(false);
         });
         gbc.gridx=1;
         gbc.gridy=2;
         Button Serch=new Button("Serch specfic student");
         Serch.addActionListener(new ActionListener()
              public void actionPerformed(ActionEvent e)
               {
                   f.dispose();
                   new Demos();
         });
         f.add(Serch,gbc);
         Serch.setForeground(Color.BLACK);
         Serch.setBackground(Color.cyan);
         Serch.setFont(new Font("TimesRoman", Font.BOLD, 20));
   public static void main(String args[])
      Info d=new Info();
      public void toSetBackground(JFrame obj)
       {
            BufferedImage img = null;
           try
               img = ImageIO.read(new
File("E:\\Shraddha\\first.jpg"));
             catch(IOException e)
```

```
e.printStackTrace();
              }
                Image dimg = img.getScaledInstance(1366,768,
Image.SCALE SMOOTH);
                 obj.setContentPane(new JLabel(new
ImageIcon(dimg)));
}
Hostel Details:
     package hostel;
     import java.awt.Button;
     import java.awt.Color;
    import java.awt.Image;
    import java.awt.event.ActionEvent;
    import java.awt.event.ActionListener;
    import java.awt.image.BufferedImage;
    import java.io.File;
    import java.io.IOException;
    import javax.imageio.ImageIO;
    import javax.swing.ImageIcon;
     import javax.swing.JButton;
     import javax.swing.JFrame;
    import javax.swing.JLabel;
    import javax.swing.JScrollPane;
     import javax.swing.JTable;
    public class HostelDetails {
     JFrame f;
     JLabel 11;
     JTable ;;
     Button Back;
         HostelDetails()
    {
         f = new JFrame();
         Back = new e4ws7Button("Back");
         Back.setBounds(250,200,50,30);
         Back.addActionListener(new ActionListener() {
              public void actionPerformed(ActionEvent e) {
                   new Info();
```

```
f.dispose();
              });
         f.add(Back);
              f.setTitle("JTable Example");
                   String[][] data = {
              { "Hostel Name", "Perfect Living Space" },
              { "Address", "VidhyaNager Karad"},
              {"Hostel Guardian", "Mrs. Shraddha Kajale"},
              {"Mobile No", "9011204678"},
              {"Email ID", "Shraddhakajale@gmail.com"},
              {"Source of Water", "24 hours"},
              {"Avaliblity of Rooms", "85 Rooms Avalible"},
              {"Mess is Avalible", "YES"},
              {"FingerPrint System for Attendence
avalible", "YES
                          ,Fingerprint System Avaliable"},
         String[] columnNames = {
"Avalibility", "Information"};
                   j = new JTable(data, columnNames);
                   j.setBounds(30, 40, 200, 300);
                   JScrollPane sp = new JScrollPane(j);
                   f.add(sp);
                   f.setSize(600,300);
                   f.setVisible(true);
    f.getContentPane().setBackground(Color.blue);
    public static void main(String[] args)
         new HostelDetails();
     }
}
```

> Student Registration:

```
package hostel;
    import java.awt.event.ActionEvent;
    import java.awt.event.ActionListener;
    import java.sql.Connection;
    import java.sql.DriverManager;
    import java.sql.SQLException;
    import java.sql.Statement;
    import javax.swing.*;
   public class SRegistration {
    public SRegistration() {
         JFrame f=new JFrame(" ");
         try {
        Connection conn=DriverManager.getConnection
("jdbc:mysql://localhost:3306/hostel", "root", "root");
        Statement stmt=conn.createStatement();
         f.setSize(500,400);
         f.setLayout(null);
         f.setVisible(true);
         JLabel 11=new JLabel("Student ID:");
         l1.setBounds(50,20,100,30);
         f.add(11);
         JTextField StudentID=new JTextField(25);
         StudentID.setBounds(160,20,100,30);
         f.add(StudentID);
         JLabel 12=new JLabel("Student Name:");
         12.setBounds(40,50,90,30);
         f.add(12);
         JTextField StudentName=new JTextField(25);
         StudentName.setBounds(160,50,100,30);
         f.add(StudentName);
         JLabel 13=new JLabel("Mobile No:");
         13.setBounds(40,80,80,30);
         f.add(13);
         JTextField Mobileno=new JTextField(25);
```

```
Mobileno.setBounds(160,80,100,30);
f.add(Mobileno);
JLabel 14=new JLabel("Room No:");
14.setBounds(40,110,100,30);
f.add(14);
JTextField RoomNo=new JTextField(25);
RoomNo.setBounds(160,110,100,30);
f.add(RoomNo);
JLabel 15=new JLabel("College Name:");
15.setBounds(40,140,100,30);
f.add(15);
JTextField Collegename=new JTextField(25);
Collegename.setBounds(160,140,100,30);
f.add(Collegename);
JLabel 16=new JLabel("Education:");
16.setBounds(40,170,100,30);
f.add(16);
JTextField Eduction=new JTextField(25);
Eduction.setBounds(160,170,100,30);
f.add(Eduction);
JLabel 17=new JLabel("Perment Address:");
17.setBounds(40,200,120,30);
f.add(17);
JTextField Permentaddress=new JTextField(25);
Permentaddress.setBounds(160,200,100,30);
f.add(Permentaddress);
JButton Submit = new JButton("Submit");
Submit.setBounds(40,260,100,30);
f.add(Submit);
JButton Delete = new JButton("Delete");
Delete.setBounds(160,260,100,30);
 f.add(Delete);
JButton Update = new JButton("Update");
Update.setBounds(270,260,100,30);
f.add(Update);
JButton Back = new JButton("Back");
Back.setBounds(380,260,100,30);
Back.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent e) {
    new Info();
```

```
f.dispose();
            });
         f.add(Back);
         Submit.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent e) {
   String str="insert into Student
values('"+StudentID.getText()+"','"+StudentName.getText()+"'
,'"+Mobileno.getText()+"','"+RoomNo.getText()+"','"+Collegen
ame.getText()+"','"+Eduction.getText()+"','"+Permentaddress.
getText()+"')";
         System.out.println(str);
         try {
              stmt.executeUpdate(str);
         } catch (SQLException e1) {
              // TODO Auto-generated catch block
              e1.printStackTrace();
    });
     Delete.addActionListener(new ActionListener() {
         public void actionPerformed(ActionEvent e) {
         String strDelete = "Delete from Student where
                        StudentID=('"+StudentID.getText()+
"')";
         System.out.println(strDelete);
         try {
              stmt.executeUpdate(strDelete);
         } catch (SQLException e1) {
              // TODO Auto-generated catch block
              e1.printStackTrace();
    });
    Update.addActionListener(new ActionListener() {
         public void actionPerformed(ActionEvent e) {
```

```
String strUpdate ="Update Student set
StudentID='"+StudentID.getText()+"',StudentName='"+StudentNa
me.getText()+"',Mobileno='"+Mobileno.getText()+"',RoomNo='"+
RoomNo.getText()+"', Collegename='"+Collegename.getText()+"',
Eduction='"+Eduction.getText()+"',Permentaddress='"+Permenta
ddress.getText()+"' where StudentID="+StudentID.getText();
         System.out.println(strUpdate);
         try {
              stmt.executeUpdate(strUpdate);
         } catch (SQLException e1) {
              // TODO Auto-generated catch block
              e1.printStackTrace();
    });
         catch(SQLException ex) {
              ex.printStackTrace();
         }
}
    public static void main(String args[])
         new SRegistration();
}
> Searching all Student records:
    package hostel;import javax.swing.*;
    import javax.swing.table.DefaultTableModel;
    import java.awt.*;
    import java.sql.*;
    import java.awt.event.*;
    public class Studentdetails implements ActionListener{
     JFrame frame, frame1;
     JLabel label;
```

```
JButton button;
    JPanel panel;
     static JTable table;
    Button Back;
    String driverName = "com.mysql.jdbc.Driver";
    String url = "jdbc:mysql://localhost:3306/hostel";
    String userName = "root";
    String password = "root";
    String[] columnNames =
    {"StudentID", "StudentName", "Mobileno", "RoomNo", "Collegen
ame", "Eduction",
          "Permentaddress"};
public void createUI()
         frame = new JFrame("Database Search Result");
         Back = new Button("Back");
         Back.setBounds(170,200,50,30);
         Back.addActionListener(new ActionListener()
           public void actionPerformed(ActionEvent e)
            {
                new Info();
                frame.dispose();
         });
              frame.add(Back);
    frame.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
              frame.setLayout(null);
              label = new JLabel();
              label.setBounds(10, 30, 100, 20);
              button = new JButton("search");
              button.setBounds(120,130,150,20);
              button.addActionListener(this);
              frame.add(label);
              frame.add(button);
              frame.setVisible(true);
              frame.setSize(500, 400);
   }
```

```
public void actionPerformed(ActionEvent ae)
              button = (JButton)ae.getSource();
              System.out.println("Showing Table
Data....");
              showTableData();
   public void showTableData()
              frame1 = new JFrame("Database Search Result");
    frame1.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
              frame1.setLayout(new BorderLayout());
              DefaultTableModel model = new
DefaultTableModel();
              model.setColumnIdentifiers(columnNames);
              table = new JTable();
              table.setModel(model);
    table.setAutoResizeMode(JTable.AUTO RESIZE ALL COLUMNS);
              table.setFillsViewportHeight(true);
              JScrollPane scroll = new JScrollPane(table);
              scroll.setHorizontalScrollBarPolicy(
              JScrollPane. HORIZONTAL SCROLLBAR AS NEEDED);
              scroll.setVerticalScrollBarPolicy(
              JScrollPane.VERTICAL_SCROLLBAR_AS_NEEDED);
              String StudentID= "";
              String StudentName= "";
              String Mobileno = "";
              String RoomNo = "";
              String Collegename= "";
              String Eduction= "";
              String Permentaddress= "";
      try
       Class.forName(driverName);
       Connection con = DriverManager.getConnection(url,
userName, password);
          String sql = "select * from Student";
```

```
PreparedStatement ps =
con.prepareStatement(sql);
                   ResultSet rs = ps.executeQuery();
                   int i =0;
                   for(i=0;i<15;i++)</pre>
         if(rs.next())
           StudentID = rs.getString("StudentID");
              StudentName = rs.getString("StudentName");
              Mobileno = rs.getString("MobileNo");
               RoomNo = rs.getString("RoomNo");
              Collegename = rs.getString("Collegename");
           Eduction = rs.getString("Eduction");
             Permentaddress = rs.getString("Permentaddress");
model.addRow(newObject[]{StudentID,StudentName,Mobileno,Room
No, Collegename, Eduction, Permentaddress });
            }
                   if(i ==1)
                       System.out.println(i+" Record
Found");
                     }
                  else
                    System.out.println(i+" Records Found");
                 }
             }
                  catch(Exception ex)
              JOptionPane.showMessageDialog(null,
ex.getMessage(),"Error",
              JOptionPane.ERROR MESSAGE);
                frame1.add(scroll);
                frame1.setVisible(true);
                frame1.setSize(500,500);
```

```
}
    public Studentdetails()
         createUI();
    public static void main(String args[])
       new Studentdetails();
    }
}
> Searching specific Student Records:
    package hostel;
    import javax.swing.*;
     import javax.swing.table.DefaultTableModel;
    import java.awt.*;
    import java.sql.*;
    import java.awt.event.*;
   public class Demos implements ActionListener{
     JFrame frame, frame1;
     JTextField textbox;
    JLabel label;
     JButton button;
    JPanel panel;
    static JTable table;
    String driverName = "com.mysql.jdbc.Driver";
    String url = "jdbc:mysql://localhost:3306/hostel";
    String userName = "root";
    String password = "root";
    String[] columnNames =
{"StudentID", "StudentName", "Mobileno", "RoomNo", "Collegename"
,"Eduction",
        "Permentaddress"};
public Demos() {
```

createUI();

```
public void createUI()
     frame = new JFrame("Database Search Result");
     frame.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
     frame.setLayout(null);
    textbox = new JTextField();
    textbox.setBounds(120,30,150,20);
    label = new JLabel("Enter Student ID");
    label.setBounds(10, 30, 200, 20);
    button = new JButton("search");
    button.setBounds(120,100,150,20);
    button.addActionListener(this);
     frame.add(textbox);
    frame.add(label);
    frame.add(button);
     JButton Back = new JButton("Back");
    Back.setBounds(130,200,100,30);
    Back.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent e) {
         new Info();
         frame.dispose();
     });
    frame.add(Back);
    frame.setVisible(true);
    frame.setSize(500, 400);
public void actionPerformed(ActionEvent ae)
 {
     button = (JButton)ae.getSource();
    System.out.println("Showing Table Data.....");
     showTableData();
}
public void showTableData()
    frame1 = new JFrame("Database Search Result");
    frame1.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
```

```
frame1.setLayout(new BorderLayout());
    DefaultTableModel model = new DefaultTableModel();
     model.setColumnIdentifiers(columnNames);
     table = new JTable();
     table.setModel(model);
    table.setAutoResizeMode(JTable.AUTO RESIZE ALL COLUMNS);
     table.setFillsViewportHeight(true);
     JScrollPane scroll = new JScrollPane(table);
     scroll.setHorizontalScrollBarPolicy(
    JScrollPane. HORIZONTAL SCROLLBAR AS NEEDED);
     scroll.setVerticalScrollBarPolicy(
    JScrollPane. VERTICAL SCROLLBAR AS NEEDED);
     String textvalue = textbox.getText();
    String StudentID= "";
    String StudentName= "";
    String Mobileno = "";
    String RoomNo = "";
    String Collegename= "";
    String Eduction= "";
    String Permentaddress= "";
try
{
    Class.forName(driverName);
    Connection con = DriverManager.getConnection(url,
userName, password);
    String sql = "select * from Student where StudentID =
"+textvalue:
    PreparedStatement ps = con.prepareStatement(sql);
    ResultSet rs = ps.executeQuery();
     int i =0;
if(rs.next())
     StudentID = rs.getString("StudentID");
    StudentName = rs.getString("StudentName");
    Mobileno = rs.getString("MobileNo");
    RoomNo = rs.getString("RoomNo");
    Collegename = rs.getString("Collegename");
    Eduction = rs.getString("Eduction");
    Permentaddress = rs.getString("Permentaddress");
```

```
model.addRow(new
Object[]{StudentID, StudentName, Mobileno, RoomNo, Collegename, E
duction, Permentaddress });
i++;
if(i <1)
JOptionPane.showMessageDialog(null, "No Record
Found", "Error",
JOptionPane.ERROR MESSAGE);
if(i ==1)
System.out.println(i+" Record Found");
else
System.out.println(i+" Records Found");
catch(Exception ex)
JOptionPane.showMessageDialog(null, ex.getMessage(), "Error",
JOptionPane.ERROR MESSAGE);
frame1.add(scroll);
frame1.setVisible(true);
frame1.setSize(400,300);
public static void main(String args[])
    Demos sr = new Demos();
sr.createUI();
```

6.0 Resources Required:-

Sr.No	Name of	Specification	Qty.	Remarks
	Resource			
	/material			
1]	Laptop/PC	Intel (R) Core(TM)	1	
		i36006 UCPU @2.00GHz		
		2.00GB RAM		
2]	Software	JDK	1	
		1.8.0,Eclipse,Notepad		
3]	Printer	Brother DCP-J100 printer	1	

7.0 Output of the Micro-Project:-

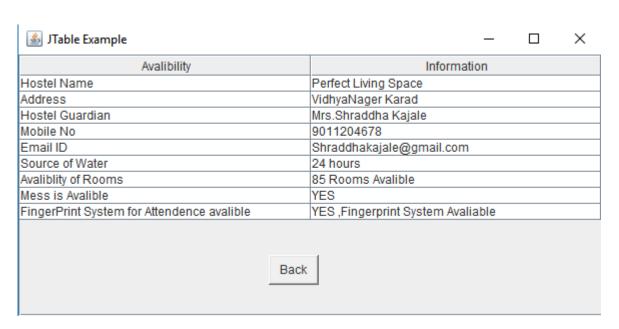
• Login Page:



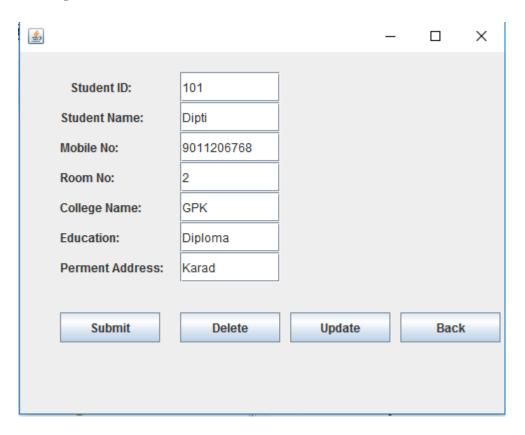
• Information Page:



Hostel Details:



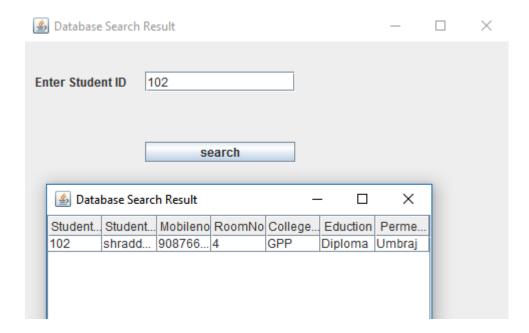
• Student Registration:



• Searching all Student records:



• Searching specific Student Records:



8.0 Skill Developed/Learning outcomes of this Micro-Project:-

We studied how to design Hostel management system using advance java programming. We learned how to design system using various swing components of java. We also learned the how to validates the various components and makes system more effective.

9.0 Application of Micro-Project:-

- 1] To present or learn the Hostel Management system.
- 2] To understand the basic concepts of Hostel Management system.