

**Guru Nanak Khalsa College Class:-**S.Y.B.Sc.CS

Roll No:-261

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Group:- Batch 3

|  |  |  |  |  |
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| **Serial**  **No.** | |  | | --- | | **LABORATORY ASSIGNMENT** | | **DATES** | **Sign** |
|  | **Category A** |  |  |
| 1. | Write a program which takes name and age from the user on click of button and display a message on label, user is eligible or not | 16/01/2022 |  |
| 2. | Write a program to create a Combobox, textfield and button and on click of button the value of textfield should be added to combobox. | 16/01/2022 |  |
| 3. | Write a program that creates a list containing ice-cream flavours.  On selection of any flavour price should be displayed in text field. | 16/01/2022 |  |
| 4. | Write a program to create two textfield and four radiobuttons (+,-,\*,%)and on selecting the radiobutton the operation should be performed and result should be displayed in JOptionPane. | 22/01/2022 |  |
| 5. | Create an application where user can place order for pizza. Accept user-name, address, mobile- no from user. Give options for 4 types of pizza (basic, thick & chewy, thin & crispy, Chicago deep dish). Also provide options for multiple toppings (Pepperoni, sausage, black olives, and mushrooms). Confirm the order by displaying all the details in a JOptionPane. | 22/01/2022 |  |
| 6. | Write a program to create a form to enter bio-data of student. Use various components such as JLabel, JButton, JTextField, JTextArea, JComboBox, JOptionPane, JCheckBox | 02/02/2022 |  |
|  | **Category B** |  |  |
| 1. | Aim – Write a JDBC program that will create a Emp table. The emp table will have EmpNo, EmpName, Salary and Location. | 02/02/2022 |  |
| 2. | Write a JDBC program that will allow user to insert & delete records to Emp table. | 02/02/2022 |  |
| 3. | Aim – Write a JDBC program that will user to navigate & update records to Emp table. | 02/02/2022 |  |
| 4. | Aim – Write a program to accept username and password from user and verify records from login(uname,password) table if correct display login successful otherwise retry | 08/02/2022 |  |
| 5. | Aim- Write a JDBC program to store images of students in a study info (rollno, name, marks, photo) table as well as retrieve image from table. | 08/02/2022 |  |
|  | **Category C** |  |  |
| 1. | Write a servlet to calculate sum of 1 to n. Accept n from html file. | 22/02/2022 |  |
| 2. | Write a servlet that accepts single-valued (Name, Mobile No.) as well as multi-valued (Languages known, Hobbies) parameters like check boxes and multiple selection list boxes from an HTML document and outputs them to the screen. | 22/02/2022 |  |
| 3. | Write a servlet that accepts user name and password sent from an html file. If the password equals "secret", the servlet redirects the output to welcome.html or if the password is wrong then it redirects to error.html. | 22/02/2022 |  |
| 4. | Write a servlet which allow user to add new record to table login. Accept values of username and password from html file. | 22/02/2022 |  |
|  | **Category D** |  |  |
| 1. | Write a JSP program to accept number and display table and factorial of number | 23/02/2022 |  |
| 2. | Write a JSP page insert records employee(eno, name, dept,sal). Also add another JSP page for displaying all the employees. | 23/02/2022 |  |
|  | **Category E** |  |  |
| 1. | Write a program for creating student beans. Display properties of a bean using JSP. | 24/02/2022 |  |
| 2. | Write a java program for encoding JSON. | 24/02/2022 |  |
| 3. | Write a java program for decoding JSON. | 24/02/2022 |  |

**Category A**

**1) Write a program which takes name and age from the user on click of button and display a message on label, user is eligible or not**

**Code:-**

**package p1;**

**import java.awt.BorderLayout;**

**import java.awt.EventQueue;**

**import javax.swing.JFrame;**

**import javax.swing.JPanel;**

**import javax.swing.border.EmptyBorder;**

**import javax.swing.JLabel;**

**import javax.swing.JTextField;**

**import javax.swing.JButton;**

**import java.awt.event.ActionListener;**

**import java.awt.event.ActionEvent;**

**import java.awt.Color;**

**import java.awt.Font;**

**public class voters extends JFrame {**

**private JPanel contentPane;**

**private JTextField txtName;**

**private JTextField txtAge;**

**JLabel l1;**

**public static void main (String [] args) {**

**EventQueue.invokeLater(new Runnable() {**

**public void run() {**

**try {**

**voters frame = new voters();**

**frame.setVisible(true);**

**} catch (Exception e) {**

**e.printStackTrace();**

**}**

**}**

**});**

**}**

**public voters() {**

**setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);**

**setBounds(100, 100, 459, 296);**

**contentPane = new JPanel();**

**contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));**

**setContentPane(contentPane);**

**contentPane.setLayout(null);**

**JLabel lblNewLabel = new JLabel("Name");**

**lblNewLabel.setFont(new Font("Tahoma", Font.BOLD, 14));**

**lblNewLabel.setBounds(48, 59, 46, 14);**

**contentPane.add(lblNewLabel);**

**JLabel lblNewLabel\_1 = new JLabel("Age");**

**lblNewLabel\_1.setFont(new Font("Tahoma", Font.BOLD, 14));**

**lblNewLabel\_1.setBounds(48, 104, 46, 14);**

**contentPane.add(lblNewLabel\_1);**

**txtName = new JTextField();**

**txtName.setBounds(143, 56, 86, 20);**

**contentPane.add(txtName);**

**txtName.setColumns(10);**

**txtAge = new JTextField();**

**txtAge.setBounds(143, 101, 86, 20);**

**contentPane.add(txtAge);**

**txtAge.setColumns(10);**

**JLabel l1 = new JLabel();**

**l1.setBounds(65, 175, 147, 14);**

**contentPane.add(l1);**

**JButton btnNewButton = new JButton("validity");**

**btnNewButton.setFont(new Font("Tahoma", Font.BOLD, 14));**

**btnNewButton.addActionListener(new ActionListener() {**

**public void actionPerformed(ActionEvent e) {**

**String a = txtName.getText();**

**int b = Integer.parseInt(txtAge.getText());**

**if(b>=18) {**

**l1.setText("You are eligible to vote");**

**}**

**else**

**l1.setText("You are not eligible to vote");**

**}**

**});**

**btnNewButton.setBounds(48, 142, 98, 23);**

**contentPane.add(btnNewButton);**

**JButton btnNewButton\_1 = new JButton("Reset");**

**btnNewButton\_1.setFont(new Font("Tahoma", Font.BOLD, 14));**

**btnNewButton\_1.addActionListener(new ActionListener() {**

**public void actionPerformed(ActionEvent e) {**

**txtName.setText("");**

**txtAge.setText("");**

**}**

**});**

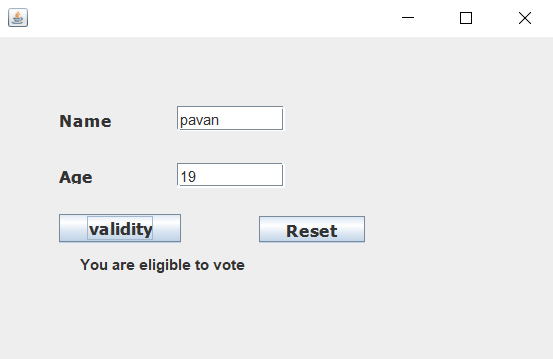
**btnNewButton\_1.setBounds(208, 144, 85, 21);**

**contentPane.add(btnNewButton\_1);**

**}**

**}**

**Output:-**

****

**2)Write a program to create a Combobox, textfield and button and on click of button the value of textfield should be added to combobox.**

**import javax.swing.\*;**

**import java.awt.\*;**

**import java.awt.event.\*;**

**public class A5{**

**public static void main(String[] args) {**

**comb obj = new comb();**

**//g = obj.getContentPane();**

**}**

**}**

**class comb extends JFrame {**

**public comb() {**

**setLayout(new FlowLayout());**

**setSize(400,400);**

**setVisible(true);**

**setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);**

**JComboBox jcb = new JComboBox();**

**JTextField t = new JTextField(10);**

**add(t);**

**JButton b = new JButton("Add Item");**

**add(b);**

**add(jcb);**

**b.addActionListener(new ActionListener() {**

**public void actionPerformed(ActionEvent ae) {**

**jcb.addItem(t.getText());**

**t.setText("");**

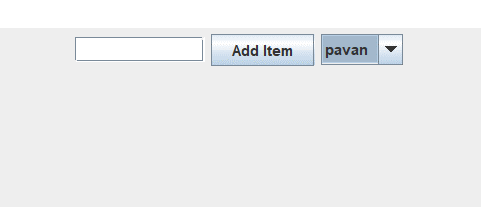
**}**

**});**

**}**

**}**

**Output:-**

****

**3) Write a program that creates a list containing ice-cream flavours.  On selection of any flavour price should be displayed in text field.**

**Code:-**

**import java.awt.event.\*;**

**import java.awt.\*;**

**import javax.swing.\*;**

**import javax.swing.event.ListSelectionEvent;**

**import javax.swing.event.ListSelectionListener;**

**public class Flavours extends JFrame implements ListSelectionListener {**

**JList l1;**

**JTextArea t1;**

**JLabel l2,l3;**

**public Flavours()**

**{**

**setLayout(new FlowLayout());**

**l2 = new JLabel("Select Flavour");**

**l3= new JLabel("Selected Flavour");**

**String[] flavour = new String[] {"Vanilla","Chocolate","Mango","Strawberry"};**

**l1=new JList(flavour);**

**l1.addListSelectionListener(this);**

**t1=new JTextArea(3,5);**

**add(l2);**

**add(l1);**

**add(l3);**

**add(t1);**

**setVisible(true);**

**setSize(500,500);**

**setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);**

**}**

**public void valueChanged(ListSelectionEvent e) {**

**Object[] obj = l1.getSelectedValues();{**

**String str = "You Selected";**

**for(int i=0;i<obj.length;i++) {**

**str += obj[i]+" ";**

**}**

**t1.setText(str);**

**}**

**}**

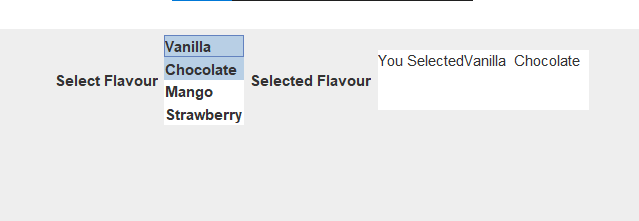
**public static void main(String[] args) {**

**new Flavours();**

**}**

**}**

**Output:-**

****

**4)Aim –**Write a program to create two textfield and four radiobuttons  
(+,-,\*,%)and on selecting the radiobutton the operation should be performed and  
result should be displayed in JOptionPane.

Code:-

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JRadioButton;

import javax.swing.ButtonGroup;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

public class P4 extends JFrame {

double n1,n2;

String msg;

private JPanel contentPane;

private JTextField txt1;

private JTextField txt2;

private final ButtonGroup buttonGroup = new ButtonGroup();

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

P4 frame = new P4();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

public P4() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Number 1");

lblNewLabel.setBounds(53, 36, 55, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Number 2");

lblNewLabel\_1.setBounds(53, 87, 55, 13);

contentPane.add(lblNewLabel\_1);

txt1 = new JTextField();

txt1.setBounds(148, 33, 96, 19);

contentPane.add(txt1);

txt1.setColumns(10);

txt2 = new JTextField();

txt2.setBounds(148, 84, 96, 19);

contentPane.add(txt2);

txt2.setColumns(10);

JRadioButton btn1 = new JRadioButton("+");

btn1.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

input();

msg="Addition is "+(n1+n2);

JOptionPane.showMessageDialog(btn1,msg);

}

});

buttonGroup.add(btn1);

btn1.setBounds(43, 125, 103, 21);

contentPane.add(btn1);

JRadioButton btn2 = new JRadioButton("-");

btn2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Substraction is "+(n1-n2);

JOptionPane.showMessageDialog(btn2,msg);

}

});

buttonGroup.add(btn2);

btn2.setBounds(185, 125, 103, 21);

contentPane.add(btn2);

JRadioButton btn3 = new JRadioButton("\*");

btn3.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Multiplication is "+(n1\*n2);

JOptionPane.showMessageDialog(btn3,msg);

}

});

buttonGroup.add(btn3);

btn3.setBounds(43, 179, 103, 21);

contentPane.add(btn3);

JRadioButton btn4 = new JRadioButton("/");

btn4.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Division  is "+(n1/n2);

JOptionPane.showMessageDialog(btn4,msg);

}

});

buttonGroup.add(btn4);

btn4.setBounds(185, 179, 103, 21);

contentPane.add(btn4);

}

void input() {

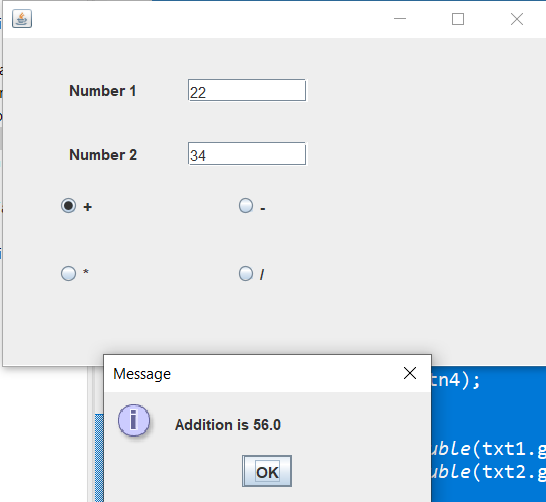
n1=Double.parseDouble(txt1.getText());

n2=Double.parseDouble(txt2.getText());

}

}

Output:-



**5)Aim –**Create an application where user can place order for pizza.  Accept user-name, address,  mobile- no from user.  Give options for 4 types ofpizza (basic, thick & chewy, thin & crispy, Chicago deep dish). Alsoprovide options for multiple toppings (Pepperoni, sausage, black olives,  andmushrooms).  Confirm the order by displaying all the details in a JOptionPane.

Code:-

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JRadioButton;

import javax.swing.ButtonGroup;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

public class P4 extends JFrame {

double n1,n2;

String msg;

private JPanel contentPane;

private JTextField txt1;

private JTextField txt2;

private final ButtonGroup buttonGroup = new ButtonGroup();

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

P4 frame = new P4();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

public P4() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Number 1");

lblNewLabel.setBounds(53, 36, 55, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Number 2");

lblNewLabel\_1.setBounds(53, 87, 55, 13);

contentPane.add(lblNewLabel\_1);

txt1 = new JTextField();

txt1.setBounds(148, 33, 96, 19);

contentPane.add(txt1);

txt1.setColumns(10);

txt2 = new JTextField();

txt2.setBounds(148, 84, 96, 19);

contentPane.add(txt2);

txt2.setColumns(10);

JRadioButton btn1 = new JRadioButton("+");

btn1.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

input();

msg="Addition is "+(n1+n2);

JOptionPane.showMessageDialog(btn1,msg);

}

});

buttonGroup.add(btn1);

btn1.setBounds(43, 125, 103, 21);

contentPane.add(btn1);

JRadioButton btn2 = new JRadioButton("-");

btn2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Substraction is "+(n1-n2);

JOptionPane.showMessageDialog(btn2,msg);

}

});

buttonGroup.add(btn2);

btn2.setBounds(185, 125, 103, 21);

contentPane.add(btn2);

JRadioButton btn3 = new JRadioButton("\*");

btn3.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Multiplication is "+(n1\*n2);

JOptionPane.showMessageDialog(btn3,msg);

}

});

buttonGroup.add(btn3);

btn3.setBounds(43, 179, 103, 21);

contentPane.add(btn3);

JRadioButton btn4 = new JRadioButton("/");

btn4.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

msg="Division  is "+(n1/n2);

JOptionPane.showMessageDialog(btn4,msg);

}

});

buttonGroup.add(btn4);

btn4.setBounds(185, 179, 103, 21);

contentPane.add(btn4);

}

void input() {

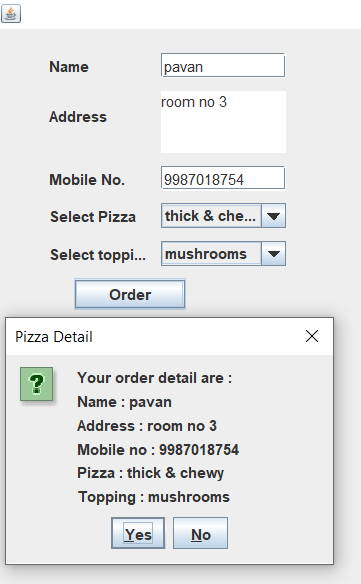
n1=Double.parseDouble(txt1.getText());

n2=Double.parseDouble(txt2.getText());

}

}

Output:-



**6)Aim –**Write a program to create a form to enter bio-data of student. Use  
various components such as JLabel, JButton, JTextField, JTextArea, JComboBox,  
JOptionPane, JCheckBox.

Code:- import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JTextField;

import javax.swing.JRadioButton;

import javax.swing.JList;

import javax.swing.JOptionPane;

import javax.swing.AbstractListModel;

import javax.swing.ButtonGroup;

import javax.swing.event.ListSelectionEvent;

import javax.swing.event.ListSelectionListener;

import java.awt.Panel;

import javax.swing.JTextArea;

import javax.swing.JButton;

import java.awt.List;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

import javax.swing.JCheckBox;

import java.awt.Font;

public class A6 extends JFrame {

private JPanel contentPane;

private JTextField txtDob;

private JTextField txtEmail;

private JTextField txtName;

private JTextField txtCon;

private JTextField txtOth;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

A6 frame = new A6();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public A6() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 449, 397);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

Panel panel = new Panel();

panel.setBounds(10, 10, 227, 309);

contentPane.add(panel);

panel.setLayout(null);

JLabel lblName = new JLabel("Name");

lblName.setBounds(9, 8, 69, 14);

panel.add(lblName);

txtCon = new JTextField();

txtCon.setBounds(94, 278, 86, 20);

panel.add(txtCon);

txtCon.setColumns(10);

txtName = new JTextField();

txtName.setBounds(94, 5, 86, 20);

panel.add(txtName);

txtName.setColumns(10);

txtDob = new JTextField();

txtDob.setBounds(94, 105, 86, 20);

panel.add(txtDob);

txtDob.setColumns(10);

txtEmail = new JTextField();

txtEmail.setBounds(94, 180, 86, 20);

panel.add(txtEmail);

txtEmail.setColumns(10);

JLabel lblAdd = new JLabel("Address");

lblAdd.setBounds(9, 33, 69, 14);

panel.add(lblAdd);

JLabel lblGen = new JLabel("Gender");

lblGen.setBounds(9, 137, 69, 14);

panel.add(lblGen);

JRadioButton r1 = new JRadioButton("Male");

r1.setBounds(9, 153, 69, 23);

panel.add(r1);

JLabel lblEmail = new JLabel("Email");

lblEmail.setBounds(9, 183, 62, 14);

panel.add(lblEmail);

JRadioButton r2 = new JRadioButton("Female");

r2.setBounds(93, 150, 87, 23);

panel.add(r2);

ButtonGroup bg = new ButtonGroup();

bg.add(r1);

bg.add(r2);

JLabel lblNewLabel\_1 = new JLabel("Language Known");

lblNewLabel\_1.setBounds(10, 212, 113, 14);

panel.add(lblNewLabel\_1);

JLabel lblDoB = new JLabel("DOB");

lblDoB.setBounds(9, 108, 62, 14);

panel.add(lblDoB);

JTextArea txtAdd = new JTextArea();

txtAdd.setBounds(94, 36, 113, 49);

panel.add(txtAdd);

JLabel lblNewLabel\_2 = new JLabel("Contact");

lblNewLabel\_2.setBounds(10, 281, 68, 14);

panel.add(lblNewLabel\_2);

JList list = new JList();

list.setFont(new Font("Tahoma", Font.PLAIN, 9));

list.setModel(new AbstractListModel() {

String[] values = new String[] {"English", "Hindi", "Marathi", "Tamil"};

public int getSize() {

return values.length;

}

public Object getElementAt(int index) {

return values[index];

}

});

list.setBounds(111, 211, 69, 56);

panel.add(list);

String Lang = "";

Object[] obj = list.getSelectedValues();{

/\*

String str = "Language Known : ";

for(int i=0;i<obj.length;i++) {

str += obj[i]+" ";

}

\*/

Panel panel\_1 = new Panel();

panel\_1.setBounds(259, 22, 164, 185);

contentPane.add(panel\_1);

panel\_1.setLayout(null);

JLabel lblNewLabel\_3 = new JLabel("Hobbies");

lblNewLabel\_3.setBounds(10, 11, 57, 14);

panel\_1.add(lblNewLabel\_3);

JCheckBox cb1 = new JCheckBox("Music");

cb1.setBounds(57, 7, 97, 23);

panel\_1.add(cb1);

JCheckBox cb2 = new JCheckBox("Dance");

cb2.setBounds(57, 32, 97, 23);

panel\_1.add(cb2);

JCheckBox cb3 = new JCheckBox("Sports");

cb3.setBounds(57, 58, 97, 23);

panel\_1.add(cb3);

JLabel lblNewLabel\_4 = new JLabel("Other");

lblNewLabel\_4.setBounds(13, 93, 62, 14);

panel\_1.add(lblNewLabel\_4);

txtOth = new JTextField();

txtOth.setBounds(68, 90, 86, 20);

panel\_1.add(txtOth);

txtOth.setColumns(10);

JButton b1 = new JButton("Submit");

b1.setBounds(106, 325, 89, 23);

contentPane.add(b1);

JButton b2 = new JButton("Reset");

b2.setBounds(205, 325, 89, 23);

contentPane.add(b2);

b2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

txtName.setText("");

txtAdd.setText("");

txtDob.setText("");

txtCon.setText("");

txtEmail.setText("");

txtOth.setText("");

cb1.setSelected(false);

cb2.setSelected(false);

cb3.setSelected(false);

bg.clearSelection();

list.setSelectedIndex(0);

//list.ensureIndexIsVisible(-1);

}

});

b1.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

String msg = "Your detail are :\n";

msg += "Name : "+txtName.getText()+"\nAddress : "+txtAdd.getText()+"\nDOB : "+txtDob.getText();

if(r1.isSelected())

msg +="\nGender : Male";

if(r2.isSelected())

msg +="\nGender : Female";

msg += "\nEmail : "+txtEmail.getText();

msg += "\n Language Selected : ";

Object[] obj = list.getSelectedValues();

for(Object o:obj)

msg += o+" ";

msg += "\nContact : "+txtCon.getText();

if(cb1.isSelected())

msg +="\nHobbies : Music";

else if(cb2.isSelected())

msg +="\nHobbies : Dance";

else if(cb3.isSelected())

msg +="\nHobbies : Sports";

msg += "\nOther : "+txtOth.getText();//cb1.getSelectedItem();

JOptionPane.showMessageDialog(b1, msg);

}

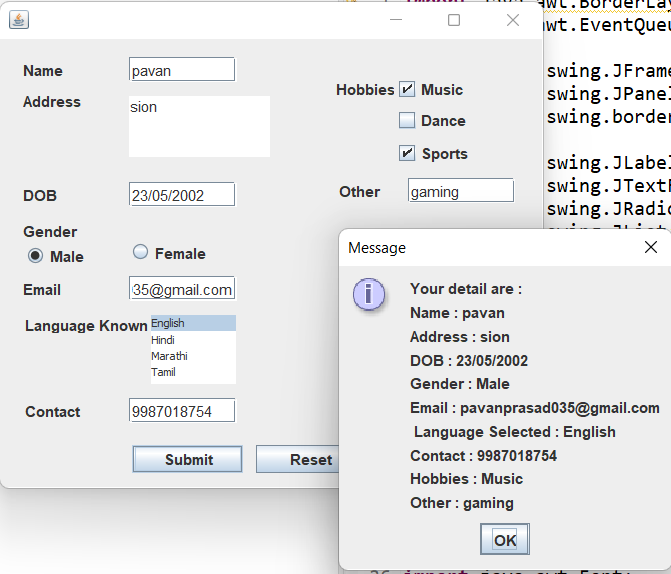
});

}

}

}

Output:-



**Category B**

1)Aim – Write a JDBC program that will create a Emp table. The emp table will  
have EmpNo, EmpName, Salary and Location.

Code:-

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.Statement;

public class Registration {

public static void main(String[] args) {

// TODO Auto-generated method stub

try {

Class.forName("com.mysql.cj.jdbc.Driver");

Connection con =DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

Statement st = con.createStatement();

String query = "create table emp(Emp\_No int, Emp\_Name varchar(20),Emp\_Salary int,Location varchar(20));";

st.execute(query);

System.out.println("Table Created!!");

st.close();

con.close();

}

catch(Exception e) {

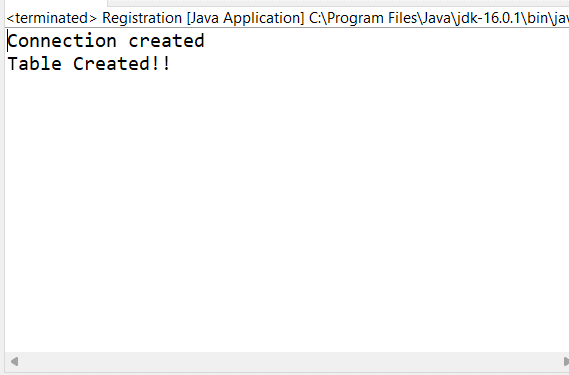
System.out.println(e);

}

}

}

Output:-



**2)Aim –**Write a JDBC program that will allow user to insert & delete records  
to Emp table.

Code:-

import java.awt.BorderLayout;

import java.awt.EventQueue;

import java.awt.Window;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.Statement;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.awt.event.ActionEvent;

public class cat2 extends JFrame {

private JPanel contentPane;

private JTextField t1;

private JTextField t2;

private JTextField t4;

private JTextField t3;

PreparedStatement ps;

String query;

ResultSet rs;

Statement st;

Connection con;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

cat2 frame = new cat2();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public cat2() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 419, 361);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Emp\_No");

lblNewLabel.setBounds(32, 25, 80, 14);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Emp\_Name");

lblNewLabel\_1.setBounds(32, 63, 80, 14);

contentPane.add(lblNewLabel\_1);

JLabel lblNewLabel\_2 = new JLabel("Emp\_Salary");

lblNewLabel\_2.setBounds(32, 104, 80, 14);

contentPane.add(lblNewLabel\_2);

JLabel lblNewLabel\_3 = new JLabel("Location");

lblNewLabel\_3.setBounds(32, 146, 80, 14);

contentPane.add(lblNewLabel\_3);

t1 = new JTextField();

t1.setBounds(144, 22, 86, 20);

contentPane.add(t1);

t1.setColumns(10);

t2 = new JTextField();

t2.setBounds(144, 60, 86, 20);

contentPane.add(t2);

t2.setColumns(10);

t4 = new JTextField();

t4.setBounds(144, 146, 86, 20);

contentPane.add(t4);

t4.setColumns(10);

t3 = new JTextField();

t3.setBounds(144, 101, 86, 20);

contentPane.add(t3);

t3.setColumns(10);

try {

Class.forName("com.mysql.cj.jdbc.Driver");

con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

st = con.createStatement();

/\*query = "select \* from emp";

rs = st.executeQuery(query);

st.execute(query);

rs.next();

show(rs);\*/

}

catch(Exception e) {

System.out.println(e);

}

JButton btnNewButton = new JButton("Add");

btnNewButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

int num = Integer.parseInt(t1.getText());

String n = t2.getText();

int s = Integer.parseInt(t3.getText());

String l = t4.getText();

query = "insert into emp values(?,?,?,?)";

try {

ps = con.prepareStatement(query);

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

ps.setInt(1, num);

ps.setString(2, n);

ps.setInt(3, s);

ps.setString(4, l);

int i = ps.executeUpdate();

JOptionPane.showMessageDialog(btnNewButton , i+"record added ");

query = "select \* from emp";

rs = st.executeQuery(query);

String sql = "select \* from emp";

rs = st.executeQuery(sql);

while(rs.next()) {

System.out.print(rs.getInt(1)+" ");

System.out.print(rs.getString(2)+" ");

System.out.print(rs.getInt(3)+" ");

System.out.println(rs.getString(4));

}

//con.close();

//rs.last();

//show(rs);

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

btnNewButton.setBounds(32, 179, 89, 23);

contentPane.add(btnNewButton);

JButton btnNewButton\_1 = new JButton("Remove");

btnNewButton\_1.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

String a = JOptionPane.showInputDialog("Enter Emp\_No ");

int b = Integer.parseInt(a);

query = "delete from emp where Emp\_No = ?";

try {

ps = con.prepareStatement(query);

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

ps.setInt(1, b);

int c = ps.executeUpdate();

JOptionPane.showMessageDialog(btnNewButton , c+"record deleted ");

//query = "select \* from emp";

//rs = st.executeQuery(query);

String sql = "select \* from emp";

rs = st.executeQuery(sql);

while(rs.next()) {

System.out.print(rs.getInt(1)+" ");

System.out.print(rs.getString(2)+" ");

System.out.print(rs.getInt(3)+" ");

System.out.println(rs.getString(4));

}

//con.close();

//rs.last();

//show(rs);

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

btnNewButton\_1.setBounds(141, 179, 89, 23);

contentPane.add(btnNewButton\_1);

JButton btnNewButton\_2 = new JButton("Clear");

btnNewButton\_2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

t1.setText("");

t2.setText("");

t3.setText("");

t4.setText("");

}

});

btnNewButton\_2.setBounds(256, 179, 89, 23);

contentPane.add(btnNewButton\_2);

}

/\*public void show(ResultSet rs) {

try {

t1.setText(rs.getString(1));

t2.setText(rs.getString(2));

t3.setText(rs.getString(3));

t4.setText(rs.getString(4));

}

catch(Exception ex) {

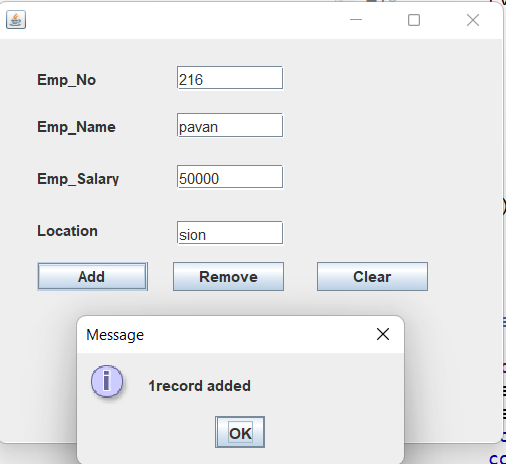
System.out.println(ex);

}

}\*/

}

Output:-



**3)Aim –**Write a JDBC program that will user to navigate & update records to Emp table.

Code:-

package p1;

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.plaf.basic.BasicInternalFrameTitlePane.IconifyAction;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.awt.event.ActionEvent;

public class cat3 extends JFrame {

private JPanel contentPane;

private JTextField txtemp;

private JTextField txtname;

private JTextField txtsalary;

private JTextField txtloc;

PreparedStatement ps;

String query;

ResultSet rs;

Statement st;

Connection con;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

cat3 frame = new cat3();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public cat3() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Emp no");

lblNewLabel.setBounds(40, 25, 45, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Name");

lblNewLabel\_1.setBounds(40, 71, 45, 13);

contentPane.add(lblNewLabel\_1);

JLabel lblNewLabel\_2 = new JLabel("Salary");

lblNewLabel\_2.setBounds(40, 120, 45, 13);

contentPane.add(lblNewLabel\_2);

JLabel lblNewLabel\_3 = new JLabel("Location");

lblNewLabel\_3.setBounds(40, 196, 45, 13);

contentPane.add(lblNewLabel\_3);

txtemp = new JTextField();

txtemp.setBounds(113, 22, 96, 19);

contentPane.add(txtemp);

txtemp.setColumns(10);

txtname = new JTextField();

txtname.setBounds(113, 68, 96, 19);

contentPane.add(txtname);

txtname.setColumns(10);

txtsalary = new JTextField();

txtsalary.setBounds(113, 117, 96, 19);

contentPane.add(txtsalary);

txtsalary.setColumns(10);

txtloc = new JTextField();

txtloc.setBounds(113, 193, 96, 19);

contentPane.add(txtloc);

txtloc.setColumns(10);

try {

Class.forName("com.mysql.cj.jdbc.Driver");

con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

st = con.createStatement(ResultSet.TYPE\_SCROLL\_INSENSITIVE,ResultSet.CONCUR\_UPDATABLE);

rs=st.executeQuery("select \* from emp");

//st.execute(query);

//rs.next

//show(rs);

}

catch(Exception e) {

System.out.println(e);

}

JButton btnfirst = new JButton("First");

btnfirst.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

rs.first();

show(rs);

}

catch (Exception e2)

{

System.out.println(e2);

}

}

});

btnfirst.setBounds(264, 21, 85, 21);

contentPane.add(btnfirst);

JButton btnnext = new JButton("Next");

btnnext.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try

{

if(rs.next()==true)

show(rs);

else

{

JOptionPane.showMessageDialog(btnnext,"U are at Last");

rs.first();

show(rs);

}

}

catch(Exception e1 )

{

System.out.println(e1);

}

}

});

btnnext.setBounds(264, 67, 85, 21);

contentPane.add(btnnext);

JButton btnprevious = new JButton("Previous");

btnprevious.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try

{

if(rs.previous())

show(rs);

else

{

JOptionPane.showMessageDialog(btnprevious,"U are at First record");

rs.last();

show(rs);

}

}

catch(SQLException ex )

{

System.out.println(ex);

}

}

});

btnprevious.setBounds(264, 116, 85, 21);

contentPane.add(btnprevious);

JButton btnlast = new JButton("Last");

btnlast.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

rs.last();

show(rs);

}

catch(Exception e3) {

System.out.println(e3);

}

}

});

btnlast.setBounds(264, 192, 85, 21);

contentPane.add(btnlast);

JButton btnupdate = new JButton("Update");

btnupdate.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

int num = Integer.parseInt(txtemp.getText());

String n = txtname.getText();

int s = Integer.parseInt(txtsalary.getText());

String l = txtloc.getText();

try {

ps = con.prepareStatement("insert into emp values(?,?,?,?)");

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

ps.setInt(1, num);

ps.setString(2, n);

ps.setInt(3, s);

ps.setString(4, l);

int i = ps.executeUpdate();

JOptionPane.showMessageDialog(btnupdate , i+"Record Updated ");

query = "select \* from emp";

rs = st.executeQuery(query);

String sql = "select \* from emp";

rs = st.executeQuery(sql);

while(rs.next()) {

System.out.print(rs.getInt(1)+" ");

System.out.print(rs.getString(2)+" ");

System.out.print(rs.getInt(3)+" ");

System.out.println(rs.getString(4));

}

//con.close();

//rs.last();

//show(rs);

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

btnupdate.setBounds(67, 232, 85, 21);

contentPane.add(btnupdate);

JButton btnreset = new JButton("Reset");

btnreset.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

txtemp.setText("");

txtname.setText("");

txtsalary.setText("");

txtloc.setText("");

}

});

btnreset.setBounds(236, 232, 85, 21);

contentPane.add(btnreset);

}

public void show(ResultSet rs){

try

{

txtemp.setText(rs.getString(1));

txtname.setText(rs.getString(2));

txtsalary.setText(rs.getString(3));

txtloc.setText(rs.getString(4));

}

catch(Exception e)

{

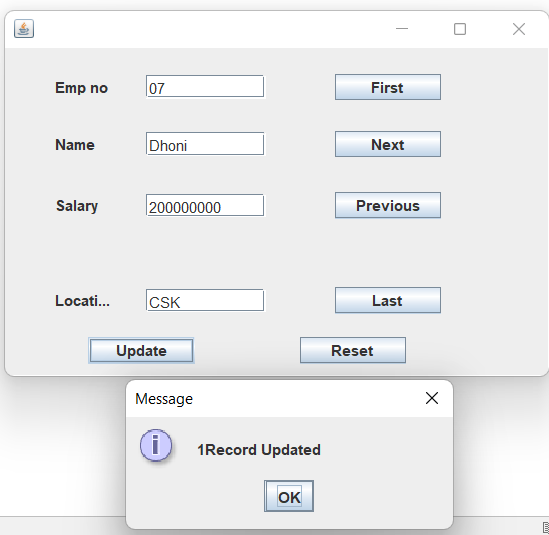
System.out.println("");

}

}

}

**Output:-**

****

**4)Aim –**Write a program to accept username and password from user and verify records from login(uname,password) table if correct display login successful otherwise retry.

Code:-

import java.awt.BorderLayout;

import java.awt.EventQueue;

import java.awt.JobAttributes;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import com.mysql.cj.PreparedQuery;

import com.mysql.cj.protocol.Resultset;

import com.mysql.cj.protocol.a.result.ResultsetRowsStatic;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.Statement;

import java.awt.event.ActionEvent;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTree;

import javax.swing.JTextField;

public class catB extends JFrame {

private JPanel contentPane;

private JTextField txt1;

private JTextField txt2;

PreparedStatement ps;

String query;

ResultSet rs;

Statement st;

Connection con;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

catB frame = new catB();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public catB() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Login");

lblNewLabel.setBounds(76, 53, 45, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Password");

lblNewLabel\_1.setBounds(76, 110, 45, 13);

contentPane.add(lblNewLabel\_1);

txt1 = new JTextField();

txt1.setBounds(149, 47, 102, 26);

contentPane.add(txt1);

txt1.setColumns(10);

txt2 = new JTextField();

txt2.setBounds(149, 107, 102, 19);

contentPane.add(txt2);

txt2.setColumns(10);

JButton btnNewButton = new JButton("Submit");

btnNewButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

PreparedStatement ps=con.prepareStatement("select name from login where name=? and password=?");

ps.setString(1,txt1.getText());

ps.setString(2,txt2.getText());

ResultSet rs=ps.executeQuery();

if(rs.next())

JOptionPane.showMessageDialog(btnNewButton ," Login Successful");

else

JOptionPane.showMessageDialog(btnNewButton,"Login Failed....");

ps.close();

con.close();

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

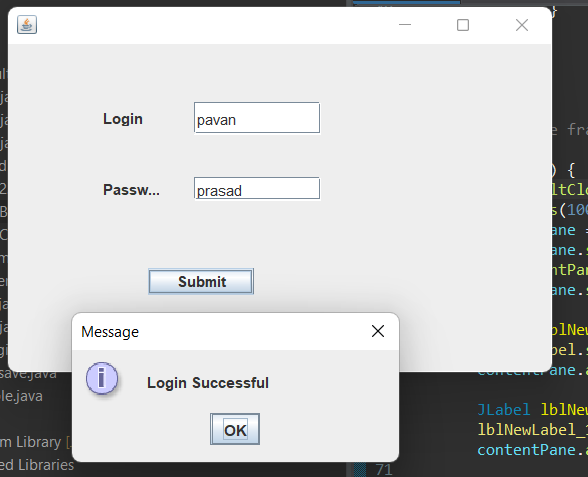
btnNewButton.setBounds(112, 180, 85, 21);

contentPane.add(btnNewButton);

}

}

Output:-



**5)Aim –**Write a JDBC program to store images of students in a studinfo   (rollno, name, marks, photo) table as well as retrieve image from table.

Code:-

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.plaf.basic.BasicBorders.RolloverButtonBorder;

import com.mysql.cj.xdevapi.Expression;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.ImageIcon;

import javax.swing.JButton;

import javax.swing.JTextField;

import java.awt.event.ActionListener;

import java.io.File;

import java.io.FileInputStream;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.Statement;

import java.awt.event.ActionEvent;

public class catC extends JFrame {

private JPanel contentPane;

private JTextField txt1;

private JTextField txt2;

private JTextField txt3;

private JTextField txt4;

Connection con;

PreparedStatement ps;

String query;

ResultSet rs;

Statement st;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

catC frame = new catC();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public catC() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Roll no:");

lblNewLabel.setBounds(45, 48, 45, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Name:-");

lblNewLabel\_1.setBounds(45, 96, 45, 13);

contentPane.add(lblNewLabel\_1);

JLabel lblNewLabel\_2 = new JLabel("Marks");

lblNewLabel\_2.setBounds(45, 141, 45, 13);

contentPane.add(lblNewLabel\_2);

JLabel lblNewLabel\_3 = new JLabel("Photo(Enter paths):");

lblNewLabel\_3.setBounds(0, 182, 105, 13);

contentPane.add(lblNewLabel\_3);

JLabel L4 = new JLabel("");

L4.setBounds(239, 10, 505, 212);

contentPane.add(L4);

JButton btn1 = new JButton("insert");

btn1.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

File f= new File(txt4.getText());

FileInputStream fis= new FileInputStream(f);

Class.forName("com.mysql.cj.jdbc.Driver");

con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

ps=con.prepareStatement("insert into student values(?,?,?,?)");

ps.setInt(1,Integer.parseInt(txt1.getText()));

ps.setString(2,txt2.getText());

ps.setInt(3,Integer.parseInt(txt3.getText()));

ps.setBinaryStream(4,fis,(int)f.length());

ps.executeUpdate();

JOptionPane.showMessageDialog(btn1,"Added");

fis.close();

ps.close();

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

btn1.setBounds(45, 232, 85, 21);

contentPane.add(btn1);

JButton btn2 = new JButton("Clear");

btn2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

txt1.setText("");

txt2.setText("");

txt3.setText("");

txt4.setText("");

}

});

btn2.setBounds(180, 232, 85, 21);

contentPane.add(btn2);

JButton btnNewButton\_2 = new JButton("Update");

btnNewButton\_2.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

String s = JOptionPane.showInputDialog(btnNewButton\_2,"Your Roll no");

int roll = Integer.parseInt(s);

ps = con.prepareStatement("select photo from student where rollno=?;");

ps.setInt(1,roll);

rs=ps.executeQuery();

byte img[]= new byte[10000];

if(rs.next()) {

img= rs.getBytes("photo");

}

ImageIcon ii = new ImageIcon(img);

L4.setIcon(ii);

}

catch(Exception e2) {

System.out.println(e2);

}

}

});

btnNewButton\_2.setBounds(304, 232, 85, 21);

contentPane.add(btnNewButton\_2);

txt1 = new JTextField();

txt1.setBounds(133, 45, 96, 19);

contentPane.add(txt1);

txt1.setColumns(10);

txt2 = new JTextField();

txt2.setBounds(133, 93, 96, 19);

contentPane.add(txt2);

txt2.setColumns(10);

txt3 = new JTextField();

txt3.setBounds(133, 138, 96, 19);

contentPane.add(txt3);

txt3.setColumns(10);

txt4 = new JTextField();

txt4.setBounds(133, 179, 96, 19);

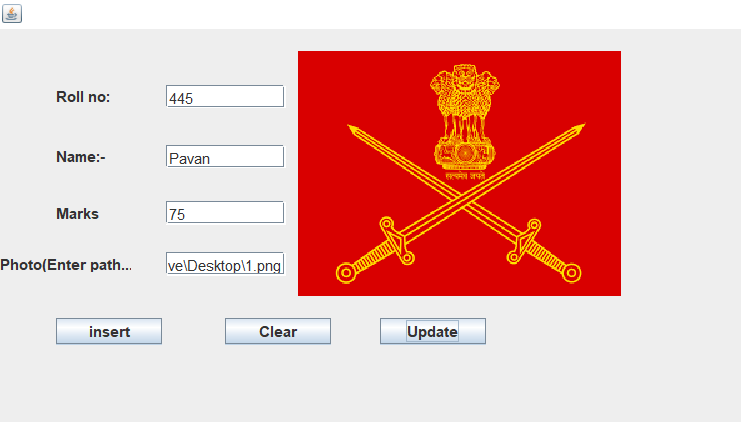
contentPane.add(txt4);

txt4.setColumns(10);

}

}

Output:-



**Category C**

**1)Aim –**Write a servlet to calculate sum of 1 to n. Accept n from html file.

Code:-

NewFile.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Natural Numbers</**title**>

</**head**>

<**body**>

<**form** action=*"SumServlet"*>

<**pre**>

Enter a Number : <**input** type=*"text"* name =*"t1"* />

<**input** type =*"submit"* value=*"Sum"* />

</**pre**>

</**form**>

</**body**>

</**html**>

SumServlet.java

package pc1;

import java.io.IOException;

import java.io.PrintWriter;

import jakarta.servlet.ServletException;

import jakarta.servlet.ServletResponse;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class SumServlet

\*/

public class SumServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public SumServlet() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out=response.getWriter();

int n= Integer.parseInt(request.getParameter("t1"));

int sum=0;

for(int i=1;i<=n;i++)

{

sum=sum+i;

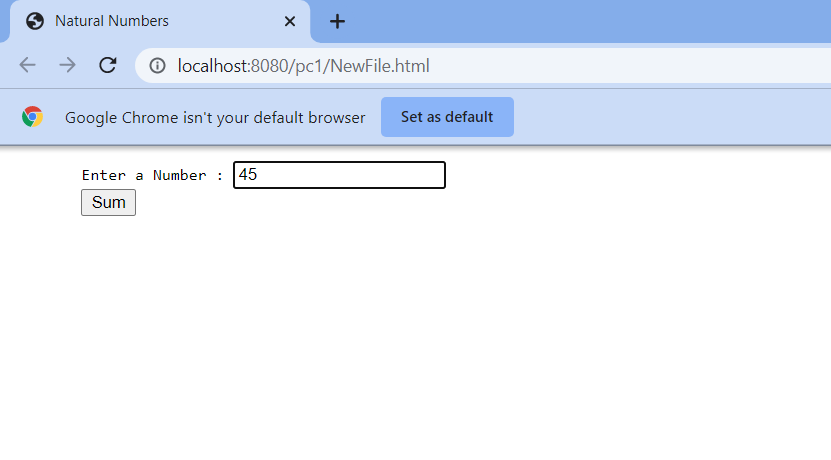
}

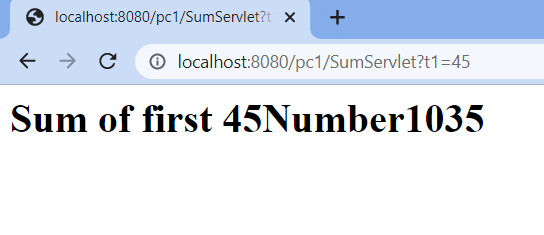
out.println("<h1>Sum of first "+n+"Number"+sum);

}

}

Output:-





**2)Aim –**Write a servlet that accepts single-valued (Name, Mobile No.) as well as multi-valued (Languages known, Hobbies) parameters like check boxes and multiple selection list boxes from an HTML document and outputs them to the screen.

Code:-

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"DetailServelt"*>

<**pre**>

Enter a Name : <**input** type=*"text"* name =*"t1"* />

Mobile : <**input** type=*"text"* name=*"t2"* />

language : <**input** type=*"checkbox"* name=*"lag"* value=*English*>English <**input** type=*"checkbox"* name=*"lag"* value=*hindi*>Hindi <**input** type=*"checkbox"* name=*"lag"* value=*Marathi*>Marathi

Hobbies : <**select** multiple=*"multiple"* name=*"hob"* size=*3*>

<**option**> Gaming </**option**>

<**option**> Cricket </**option**>

<**option**> Football </**option**>

<**option**> Tracking </**option**>

</**select**>

<**input** type =*"submit"* value=*"Submit"* /> <**input** type = *"Reset"* />

</**pre**>

</**form**>

</**body**>

</**html**>

DetailServelt.java

package pc2;

import java.io.IOException;

import java.io.PrintWriter;

import jakarta.servlet.ServletException;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class DetailServelt

\*/

public class DetailServelt extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public DetailServelt() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out=response.getWriter();

String n = request.getParameter("t1");

String m = request.getParameter("t2");

String []lang = request.getParameterValues("lag");

String []hobb = request.getParameterValues("hob");

String msg="<h1>Your details are:<br><hr>Name"+n+"<br>Mobile:"+m;

msg+="<br>Hobbies:";

for(String l:lang)

msg+=l+" ";

msg+="<br>Language:";

for(String h:hobb)

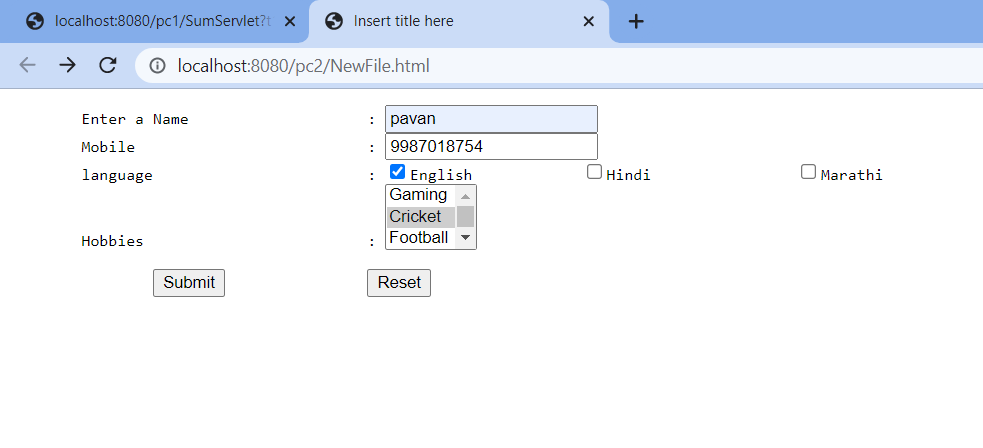
msg+=h+" ";

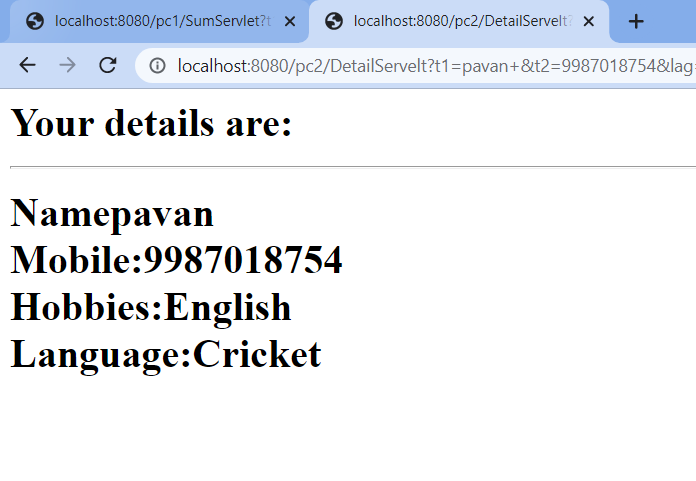
out.println(msg);

}

}

Output:-





**3)Aim –**Write a servlet that accepts user name and password sent from an html file. If the password equals "secret", the servlet redirects the output to welcome.html or if the password is wrong then it redirects to error.html.

Code:-

Login.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**h1**>Your Login is successful</**h1**>

</**body**>

</**html**>

Login.java

package pc3;

import java.io.IOException;

import jakarta.servlet.ServletException;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class Login

\*/

public class Login extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public Login() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

String n=request.getParameter("t1");

String pwd=request.getParameter("t2");

response.setContentType("text/html");

if(n.equals("pavan") && pwd.equals("prasad") ) {

response.sendRedirect("Success.html");

}else {

{

response.sendRedirect("Error.html");

}

}

}

}

Error.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Error</**title**>

</**head**>

<**body**>

<**h1**>Your Login id or password is error</**h1**>

</**body**>

</**html**>

Successful.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

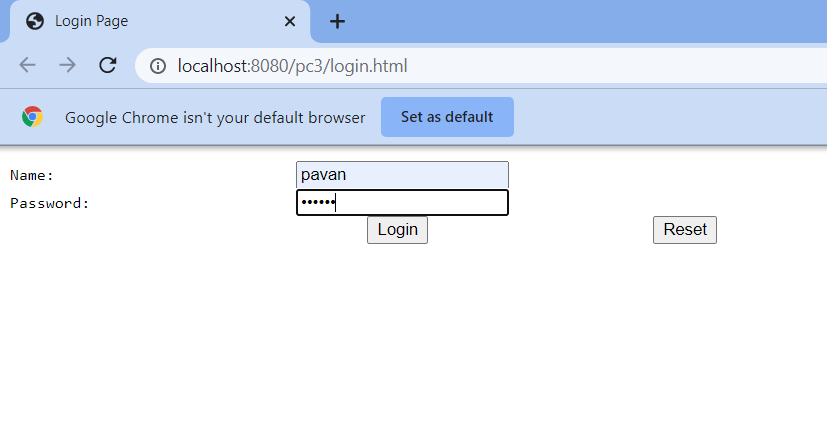
<**body**>

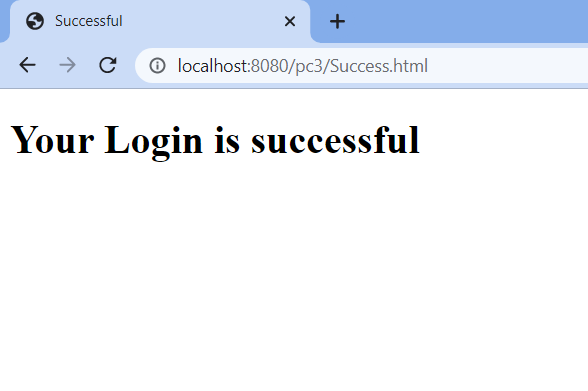
<**h1**>Your Login is successful</**h1**>

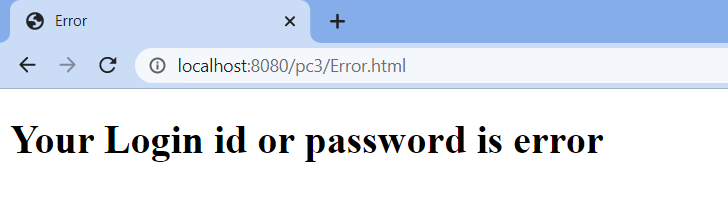
</**body**>

</**html**>

Output:-







**4)Aim –**Write a servlet which allow user to add new record to table login.  Accept values of username and password from html file.

Code:-

Add.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Save</**title**>

</**head**>

<**body**>

<**form** action=*"Save"*>

<**pre**>

Name: <**input** type=*"text"* name=*"t1"*/>

Password: <**input** type =*"password"* name=*"t2"*/>

<**input** type=*"submit"* value=*"Save"*/> <**input** type=*"Reset"* value=*"Reset"*/>

</**pre**>

</**form**>

</**body**>

</**html**>

Save.java

package pc4;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import jakarta.servlet.ServletException;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class Save

\*/

public class Save extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public Save() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html");

String n=request.getParameter("t1");

String pwd=request.getParameter("t2");

PrintWriter pw= response.getWriter();

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

PreparedStatement ps=con.prepareStatement("insert into login values(?,?)");

ps.setString(1,n);

ps.setString(2,pwd);

pw.print("<h1>Hi "+n+"</h1><br>Record Updated Sucessfully....");

ps.close();

con.close();

}

catch(Exception e1) {

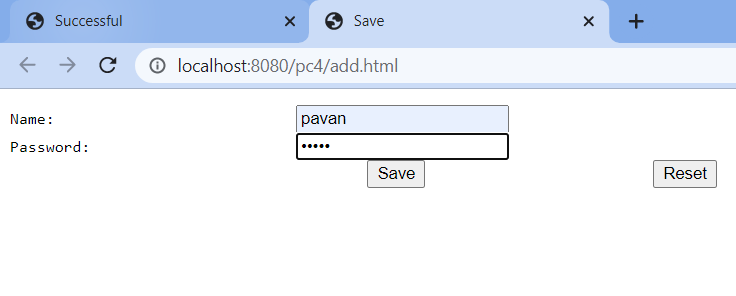
System.out.println(e1);

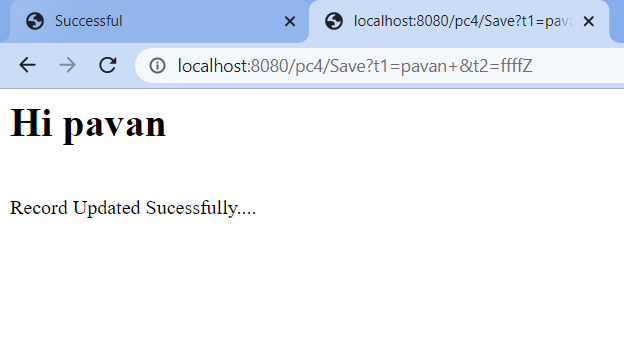
}

}

}

Output:-





**Category D**

1) Write a JSP program to accept number and display table and factorial of number

Code:-

D1.jsp

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<%

int n1 = Integer.parseInt(request.getParameter("t1"));

out.print("Table of "+n1+" : ");

for(int i=1;i<=10;i++){

out.println(n1+" \* "+i+" = "+(n1\*i)+"<br>");

}

int a=1;

for(int i=1;i<=n1;i++){

a=a\*i;

}

out.println("<h1>The Factorial of "+n1+" is "+a);

%>

</**body**>

</**html**>

Cal.jsp

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<%

int n1 = Integer.parseInt(request.getParameter("t1"));

out.print("Table of "+n1+" : ");

for(int i=1;i<=10;i++){

out.println(n1+" \* "+i+" = "+(n1\*i)+"<br>");

}

int a=1;

for(int i=1;i<=n1;i++){

a=a\*i;

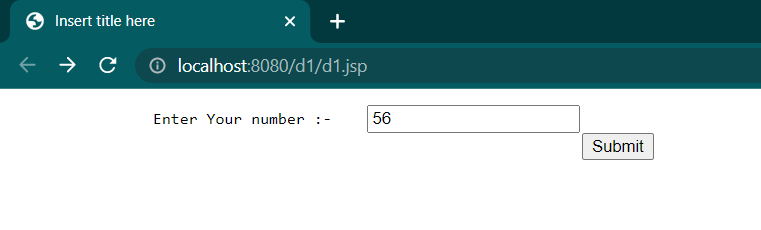
}

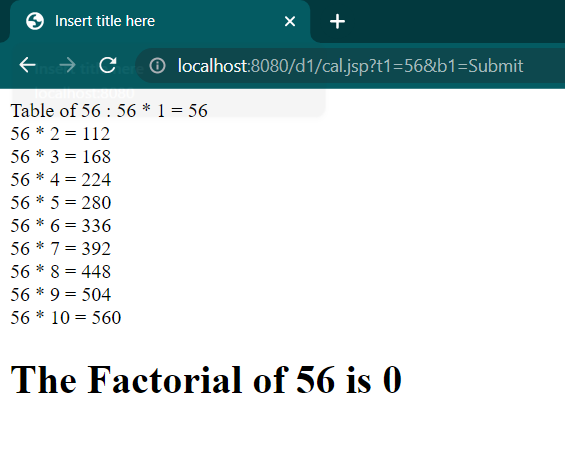
out.println("<h1>The Factorial of "+n1+" is "+a);

%>

</**body**>

</**html**>

Output:- 



2) Write a JSP page insert records employee(eno, name, dept,sal). Also add another JSP page for displaying all the employees.

Code:-

Table.jsp

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"view.jsp"* method= *"get"*>

<**pre**>

Enter Your Name:- <**input** type = *"text"* name = *"t1"* />

<**br**> Enter Your Empno:- <**input** type = *"text"* name = *"t2"* />

<**br**> Enter Your Salary:- <**input** type = *"text"* name = *"t3"* />

<**br**> Enter Your Dept:- <**input** type =*"text"* name = *"t4"* />

<**br**> <**input** type = *"submit"* /> <**input** type = *"reset"* />

</**pre**>

</**form**>

</**body**>

</**html**>

View.jsp

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action =*"show.jsp"* >

<**pre**>

<%@ **page** import=*"java.sql.\*"* %>

<%@ **page** import=*"java.io.\*"* %>

<%

response.setContentType("text/html");

String a = request.getParameter("t1");

int b = Integer.parseInt(request.getParameter("t2"));

int c = Integer.parseInt(request.getParameter("t3"));

String d = request.getParameter("t4");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

PreparedStatement ps=con.prepareStatement("insert into Emp\_1 values(?,?,?,?)");

ps.setString(1,a);

ps.setInt(2,b);

ps.setInt(3,c);

ps.setString(4,d);

out.print("<h1></h1><br>Record Updated Sucessfully....");

ps.executeUpdate();

ps.close();

con.close();

}

catch(Exception e1) {

System.out.println(e1);

}

%>

Show table: <**br**><**input** type= *"submit"* value = *"Show"* />

</**pre**>

</**form**>

</**body**>

</**html**>

Show.jsp

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>View table</**title**>

</**head**>

<**body**>

<%@ **page** import=*"java.sql.\*"* %>

<%@ **page** import=*"java.io.\*"* %>

<%@ **page** import =*"java.util.\*"* %>

<%

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

Statement st=con.createStatement();

String query="select \* from Emp\_1";

ResultSet rs=st.executeQuery(query);

ResultSetMetaData rsmd = rs.getMetaData();

int cols=rsmd.getColumnCount();

out.println("<table border=2><tr>");

for(int i=1;i<=cols;i++)

{

out.println("<th>"+rsmd.getColumnName(i)+"</th>");

}

out.println("</tr>");

while(rs.next()){

out.println("<tr>");

for(int i=1;i<=cols;i++){

out.println("<td>"+rs.getString(i)+"</td>");

}

out.println("</tr>");

}

out.println("</table>");

st.close();

con.close();

}

catch(Exception e1) {

e1.printStackTrace();

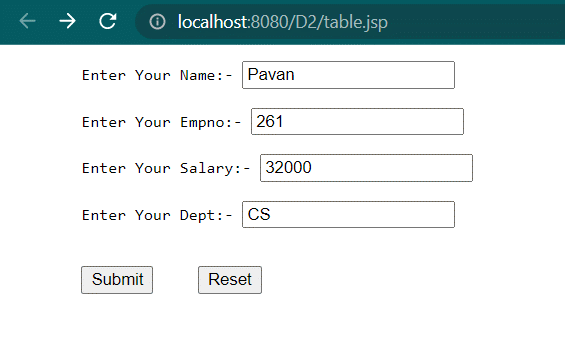
}

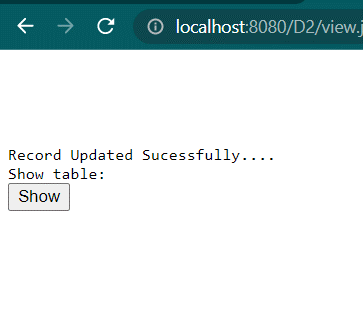
%>

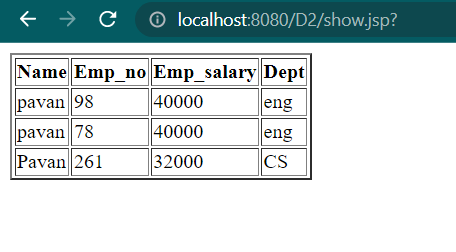
</**body**>

</**html**>

Output:-







**Category E**

1)Aim – Write a program for creating student beans. Display properties of a bean using JSP.

Code:-

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**jsp:useBean** id=*"student"* scope=*"page"* class=*"pkg.Students"*/>

<**jsp:setProperty** name =*"student"* property=*"rollno"* value=*"53"*/>

<**jsp:setProperty** name =*"student"* property=*"name"* value=*"Pavan"*/>

<**jsp:setProperty** name =*"student"* property=*"marks"* value=*"85"*/>

<**pre**>

STUDENT

Roll Number : <**jsp:getProperty** name =*"student"* property=*"rollno"*/>

Name : <**jsp:getProperty** name =*"student"* property=*"name"* />

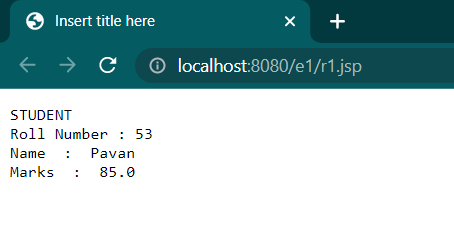
Marks : <**jsp:getProperty** name =*"student"* property=*"marks"* />

</**pre**>

</**body**>

</**html**>

Output:-



2)Write a java program for encoding JSON.

Code:-

import java.io.FileWriter;

import java.io.FileWriter;

import java.util.Scanner;

import org.json.\*;

import org.json.simple.JSONObject;

public class E2 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);

System.***out***.print("Enter Student Name");

String n=sc.next();

System.***out***.print("Enter Your roll no");

double roll=sc.nextDouble();

System.***out***.print("Enter your Marks");

double mks=sc.nextDouble();

JSONObject obj = new JSONObject();

obj.put("Name", n);

obj.put("Roll no", roll);

obj.put("marks", mks);

System.***out***.print(obj);

try {

System.***out***.print("\nWritting Date into JSONfile...");

FileWriter fw = new FileWriter("d:/encode.jsn");

fw.write(obj.toJSONString());

fw.close();

System.***out***.print("Done");

} catch (Exception e) {

System.***out***.print(e);

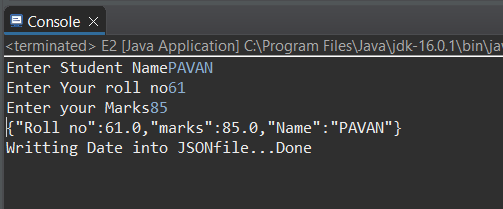
}

}}}

}

}

Output:-



3)Aim – Write a java program for decoding JSON.

Code:-

import java.io.FileReader;

import org.json.simple.JSONObject;

import org.json.simple.parser.JSONParser;

public class E3 {

public static void main(String args[])

{

JSONParser parser = new JSONParser();

try {

Object obj = parser.parse(new FileReader("d:/encode.jsn"));

JSONObject ob = (JSONObject)obj;

String n = (String) ob.get("Name");

double roll = (double)ob.get("Roll no");

double m = (double)ob.get("marks");

System.***out***.println("Name:"+n);

System.***out***.println("RollNo"+roll);

System.***out***.println("Marks"+m);

}

catch (Exception e) {

System.***out***.println(e);

}

}

}

Output:-

