Practical No 1

Aim : Write a java swing program to find square and cube of a number using ComboBox controls.

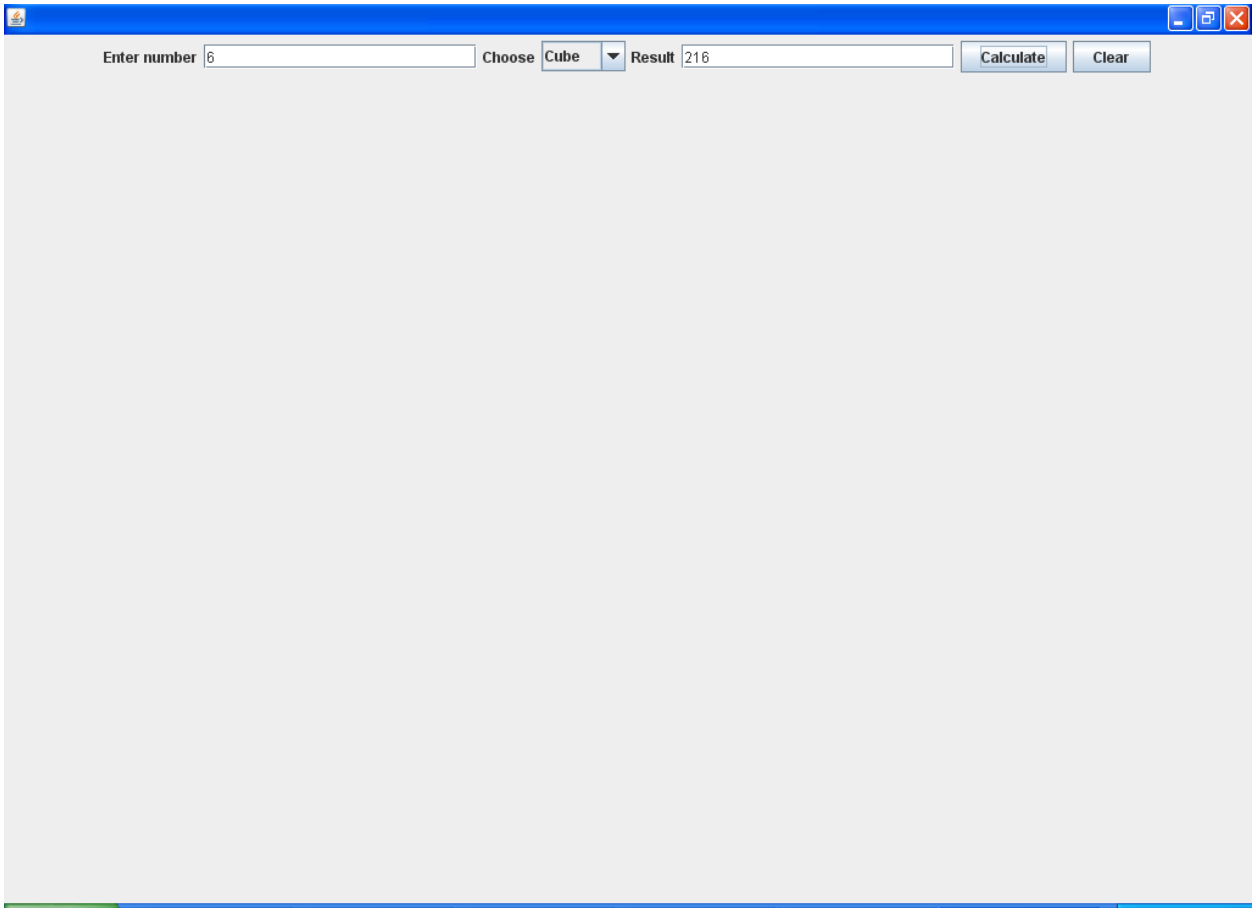
Solution :

(File->New project->Java application)

```
package practical1;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class Practical1 extends JFrame implements ActionListener,ItemListener
{
   JLabel l1,l2,l3;
   JTextField t1,t2;
   JComboBox jcb;
   JButton b1,b2;
   String s="";

   Practical1()
   {
      l1=new JLabel("Enter number");
      l2=new JLabel("Choose");
      l3=new JLabel("Result");
      t1=new JTextField(20);
      t2=new JTextField(20);
      jcb=new JComboBox();
      b1=new JButton("Calculate");
      b2=new JButton("Clear");

      jcb.addItem("Square");
      jcb.addItem("Cube");

      Container cp=getContentPane();
      cp.setLayout(new FlowLayout());

      cp.add(l1);
      cp.add(t1);

      cp.add(l2);
      cp.add(jcb);

      cp.add(l3);
      cp.add(t2);

      cp.add(b1);
      cp.add(b2);
```

```
        jcb.addItemListener(this);
        b1.addActionListener(this);
        b2.addActionListener(this);
        setSize(700,700);
            setVisible(true);

    }

    public void itemStateChanged(ItemEvent ie)
    {
        s=(String) ie.getItem();
    }
    public void actionPerformed(ActionEvent ae)
    {
        if(ae.getSource()==b1)
        {
            int x=Integer.parseInt(t1.getText());
            int y;

            if(s.equals("Square"))
                y=x*x;
            else
                y=x*x*x;

            t2.setText(y+"");
        }
        else
        {
            t1.setText("");
            t2.setText("");
            t1.requestFocus();

        }

    }
    public static void main(String[] args)
    {
        new Practical1();
    }

}
```

Output :



Practical No 2

Aim : Write a java swing program to design Registration Form.

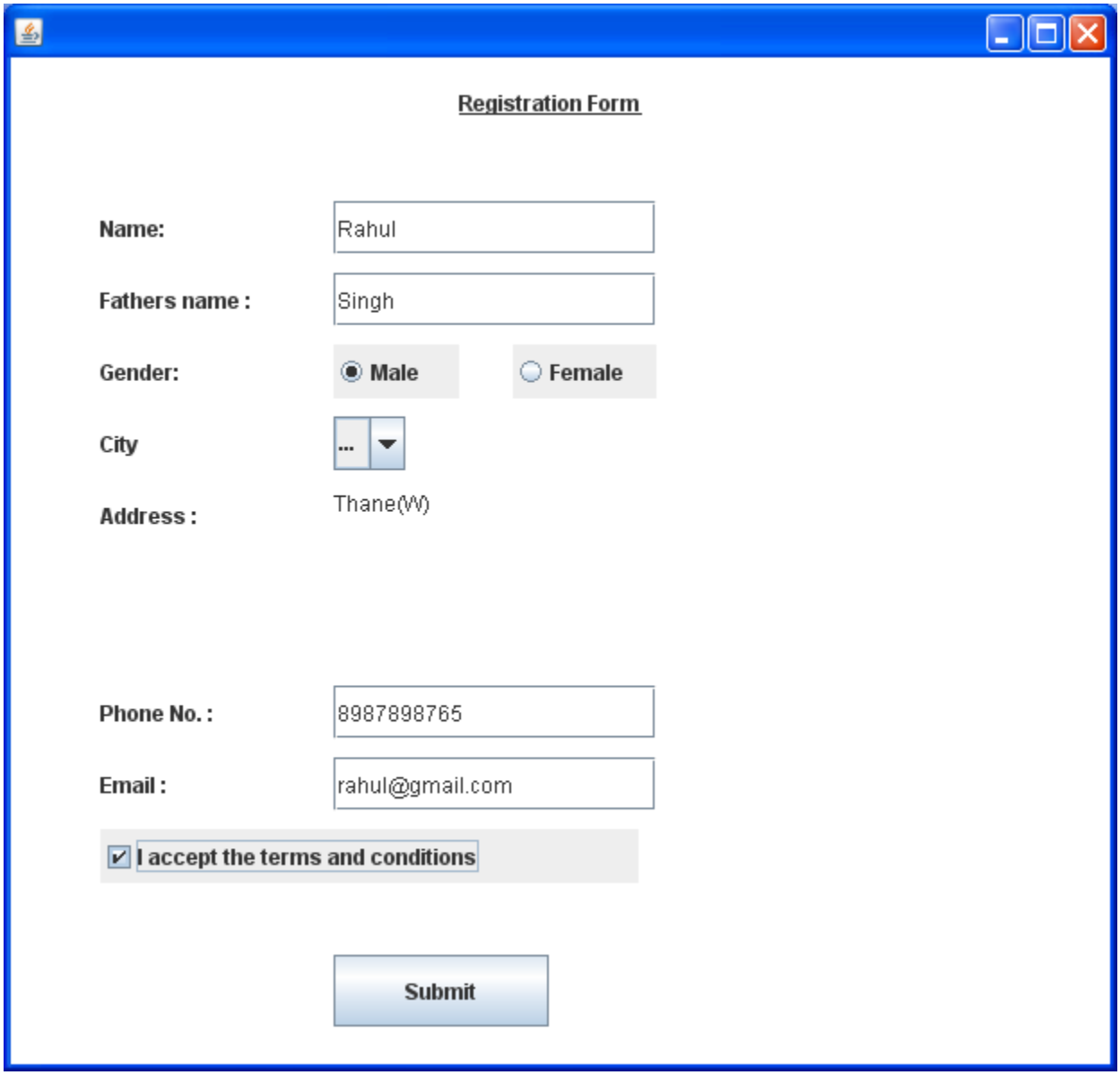
Solution :
(File->New project->Java application)

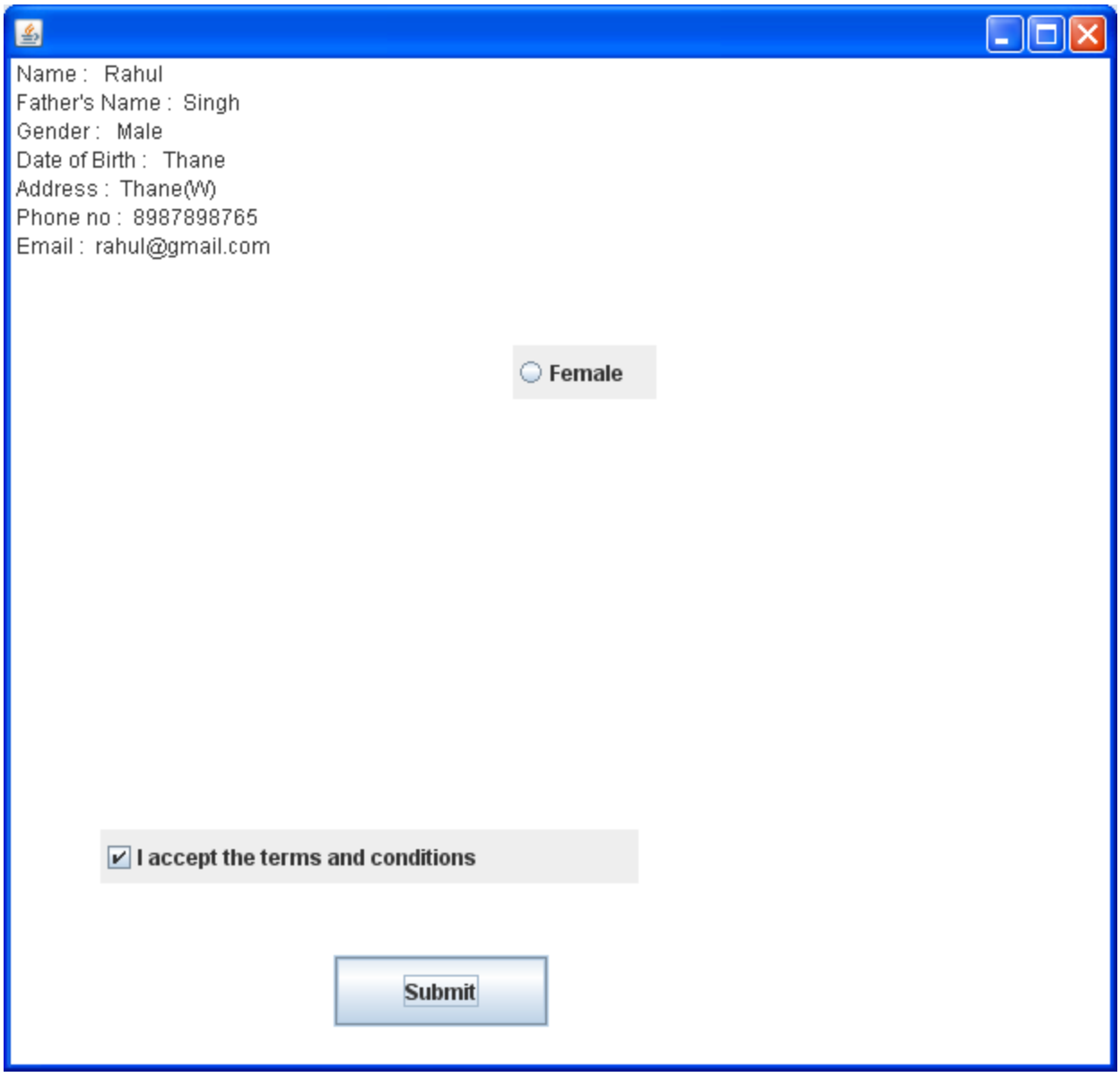
```
package practical2;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class Practical2 extends JFrame implements ActionListener
{

  JLabel lblname,lblfname,lblphone,lblemail,lblgender,lblcity,lblAddress;
  JTextField name_txt,fname_txt,phone_txt,email_txt;
        JRadioButton male,female;
        JComboBox jcbcity;
        JTextArea add_txtArea,output_txtArea;
        JCheckBox chkbox;
        JButton submit_btn;
         Practical2()
      {
         JLabel heading_lbl=new JLabel();
                heading_lbl.setBounds(250,5,200,40);
                heading_lbl.setText("<html><font><u><b>Registration Form</b></u></html>");

                lblname=new JLabel("Name:");
                lblname.setBounds(50,80,100,30);

                name_txt=new JTextField();
                name_txt.setBounds(180,80,180,30);

                lblfname=new JLabel("Fathers name :");
                lblfname.setBounds(50,120,150,30);

                fname_txt=new JTextField();
                fname_txt.setBounds(180,120,180,30);

                lblgender=new JLabel("Gender:");
                lblgender.setBounds(50,160,150,30);

                male=new JRadioButton("Male");
                male.setBounds(180,160,70,30);

                female=new JRadioButton("Female");
                female.setBounds(280,160,80,30);
```

```
ButtonGroup gender_grp=new ButtonGroup();
gender_grp.add(male);
gender_grp.add(female);

lblcity =new JLabel("City");
lblcity.setBounds(50,200,100,30);
String city[]={"Mumbai","Thane","Pune"};
jcbcity=new JComboBox(city);
jcbcity.setBounds(180,200,40,30);

lblAddress =new JLabel("Address :");
lblAddress.setBounds(50,240,100,30);

add_txtArea= new JTextArea();
add_txtArea.setBounds(180,240,180,100);

lblphone=new JLabel("Phone No. : ");
lblphone.setBounds(50,350,100,30);

phone_txt=new JTextField();
phone_txt.setBounds(180,350,180,30);

lblemail=new JLabel("Email : ");
lblemail.setBounds(50,390,100,30);

email_txt=new JTextField();
email_txt.setBounds(180,390,180,30);

chkbox=new JCheckBox("I accept the terms and conditions");
chkbox.setBounds(50,430,300,30);

submit_btn=new JButton("Submit");
submit_btn.setBounds(180,500,120,40);

output_txtArea=new JTextArea();
output_txtArea.setBounds(500,80,500,320);


add(heading_lbl);
add(lblname);
add(lblfname);
add(lblgender);
add(male);
add(female);
add(lblcity);
add(lblAddress);
add(lblphone);
add(lblemail);

add(name_txt);
add(name_txt);
```

```
                add(fname_txt);
                add(jcbcity);
                add(add_txtArea);
                add(phone_txt);
                add(email_txt);
                add(chkbox);
                add(submit_btn);
                add(output_txtArea);

                submit_btn.addActionListener(this);

                setSize(700,700);
                setVisible(true);

        }
        public void actionPerformed(ActionEvent e)
          {
                if(chkbox.isSelected()==true)
                {
                        String name=name_txt.getText();
                        String fname=fname_txt.getText();
                        String gender="Male";
                        if(female.isSelected()==true)
                                gender="Female";
                        String city_name=(String)jcbcity.getSelectedItem();
                        String add=add_txtArea.getText();
                        String phone=phone_txt.getText();
                        String email=email_txt.getText();

                        // displaying value in the JTextArea
          output_txtArea.setText(" Name :   " +name + "\n Father's Name :  " +fname + "\n Gender
:   "+gender +  "\n Date of Birth :   "+city_name + "  "+"\n Address :  "+add + " \n Phone no :
"+phone+"\n Email :  "+email + "\n ");
                }
                else
                {
                        output_txtArea.setText("Please accept the terms and condition");
                }
          }
          public static void main(String args[])
          {
                new Practical2();
          }

}
```

Output :


Registration Form
Name:
Rahul
Fathers name :
Singh
Gender:
Male
Female
City
...
Address :
Thane(W)
Phone No. :
8987898765
Email :
rahul@gmail.com
I accept the terms and conditions
Submit


Name : Rahul
Father's Name : Singh
Gender : Male
Date of Birth : Thane
Address : Thane(W)
Phone no : 8987898765
Email : rahul@gmail.com
Female
I accept the terms and conditions
Submit

Practical No 3

Aim : Write a jdbc program to implement ResultSet by accepting query by command line.

Solution :
(File->New project->Java application)

```
package practical5;
import java.sql.*;
import java.io.*;

public class Practical5 {


 public static void main(String[] args)
   {
      try
                {
                Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
        Connection con=DriverManager.getConnection("jdbc:odbc:test","system","server");
               BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
                String str;
                str=br.readLine();
                Statement st=con.createStatement();
                ResultSet rs=st.executeQuery(str);
                ResultSetMetaData rsmd=rs.getMetaData();

                for(int i=1;i<=rsmd.getColumnCount();i++)
                {
                    System.out.print(rsmd.getColumnName(i)+"\t");
                }
                System.out.println();
                while(rs.next())
                {
                   for(int j=1;j<=rsmd.getColumnCount();j++)
                   {
                         System.out.print(rs.getString(j)+"\t");
                   }
                   System.out.println();
                         }
        }
                catch(Exception e)
                {
                      System.out.println(e);
                        e.printStackTrace();
                }
      }
}
```

create table:

```
create table student
(
        Name varchar2(20),
        RollNo integer
);

insert into student values('Rahul',101);
insert into student values('Kirti',102);
```

Output :

```
Select * from student;
NAME  ROLLNO
Rahul  101
Rahul  101
kirti  102
```

Practical No 4

Aim : Write a jdbc program to insert a record in a database using Swing controls.

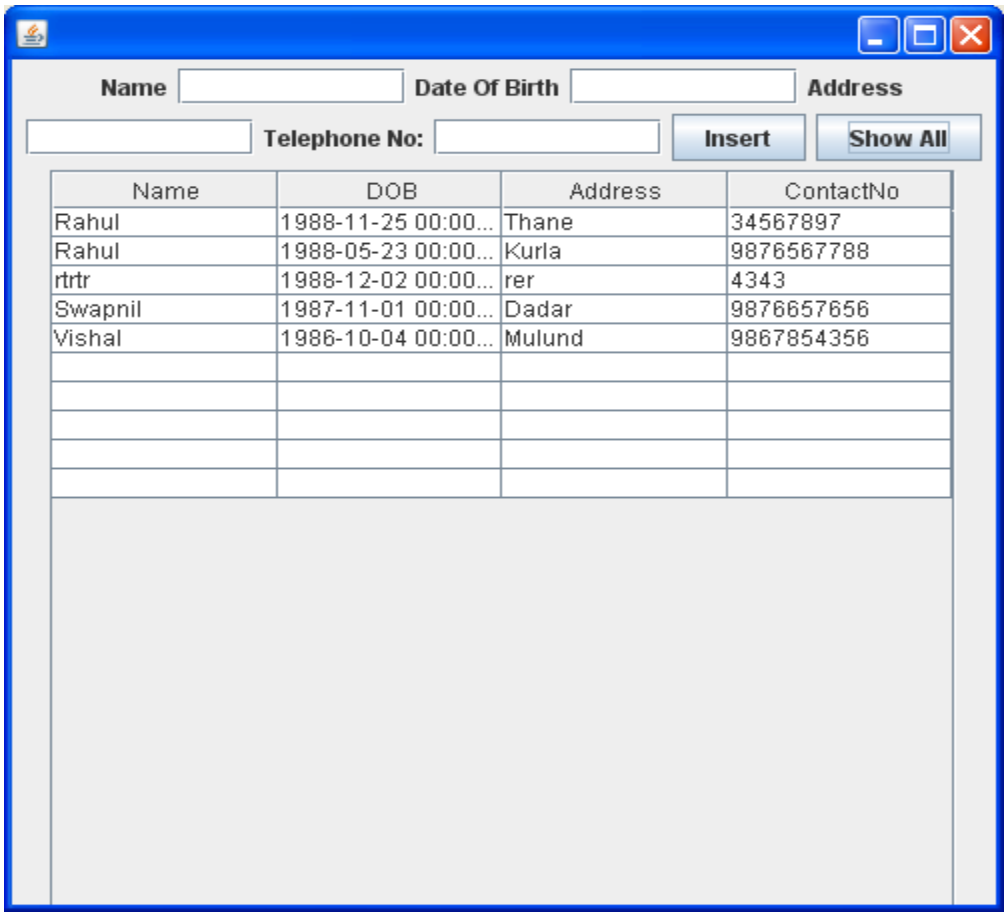
Solution :
(File->New project->Java application)

```
package practicale6;
import java.awt.*;
import javax.swing.*;
import java.awt.event.*;
import java.sql.*;

public class Practicale6 extends JFrame implements ActionListener
{

   JTextField t1,t2,t3,t4;
   JButton b1,b2;
   Container c;
   JLabel l1,l2,l3,l4;
   String rows[][]=new String[10][4];
   String cols[]={"Name","DOB","Address","ContactNo"};
   JTable tb;
   JScrollPane jsp;

   public Practicale6()
   {
         c=getContentPane();
         c.setLayout(new FlowLayout());
         l1=new JLabel("Name");
         l2=new JLabel("Date Of Birth");
         l3=new JLabel("Address");
         l4=new JLabel("Telephone No:");
         t1=new JTextField(10);
         t2=new JTextField(10);
         t3=new JTextField(10);
         t4=new JTextField(10);
         b1=new JButton("Insert");
         b2=new JButton("Show All");

       c.add(l1);
       c.add(t1);
       c.add(l2);
       c.add(t2);
       c.add(l3);
       c.add(t3);
       c.add(l4);
       c.add(t4);
          c.add(b1);
          c.add(b2);
```

```
        b1.addActionListener(this);
        b2.addActionListener(this);
}

public void actionPerformed(ActionEvent ae)
{
    Connection con;
    Statement st;
    try
    {
        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
        con=DriverManager.getConnection("jdbc:odbc:test","system","server");

        st=con.createStatement();
        String s1="",s2="",s3="",s4="";
        s1=t1.getText();
        s2=t2.getText();
        s3=t3.getText();
        s4=t4.getText();

        if(ae.getSource()==b1)
        {
            st.executeUpdate("insert into frnds values('"+s1+"','"+s2+"','"+s3+"','"+s4+")");

            System.out.println("Record Inserted");
            t1.setText("");
                  t2.setText("");
            t3.setText("");
            t4.setText("");
            t1.requestFocus();
        }
        if(ae.getSource()==b2)
        {
                  ResultSet rs=st.executeQuery("Select * from frnds");
            ResultSetMetaData rsmd=rs.getMetaData();
            System.out.println(rsmd.getColumnCount());
            int i=0,j;
            while(rs.next())
            {
                for(j=0;j<rsmd.getColumnCount();j++)
                {
                    rows[i][j]=rs.getString(j+1);
                       }
                i++;
            }
               tb=new JTable(rows,cols);
               jsp=new JScrollPane(tb);
                c.add(jsp);
                System.out.println("Table Inserted");
        }
     }
```

```
        catch(Exception e)
        {
           System.out.println(e);
           e.printStackTrace();
        }
    }
    public static void main(String[] args)
    {
       Practicale6 m=new Practicale6();
       m.setSize(500,500);
       m.setVisible(true);

    }

}
```

Output :



Practical No 5

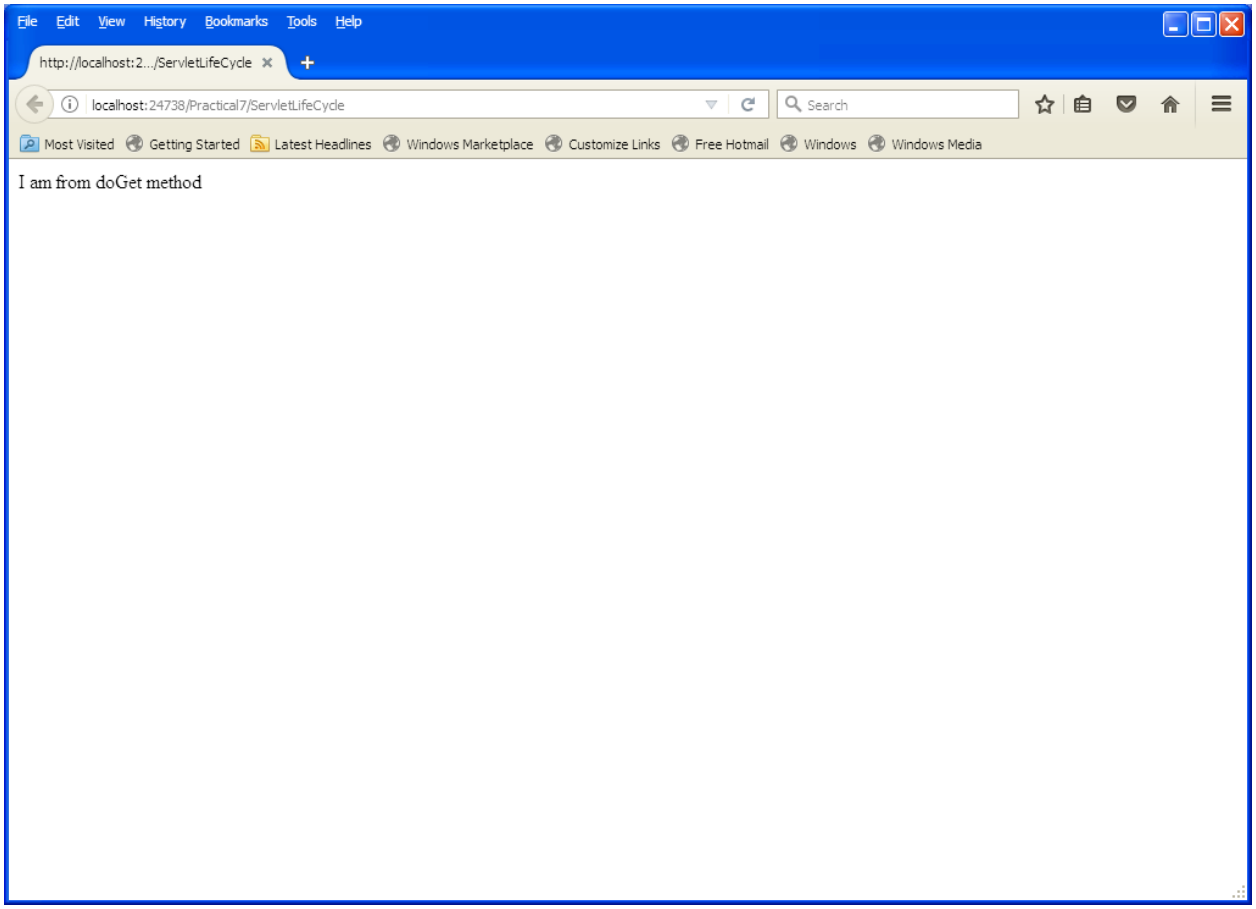
Aim : Write a program to implement Servlet Life Cycle.

Solution :

(ServletLifeCycle.java)
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include servlet file and, by default index.html present)

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet(urlPatterns = {"/ServletLifeCycle"})
public class ServletLifeCycle extends HttpServlet
{

   public ServletLifeCycle()
   {
      System.out.println("Am from default constructor");
   }

   public void init(ServletConfig config)
   {
      System.out.println("Am from Init method...!");
   }

   public void doGet(HttpServletRequest req,HttpServletResponse res)throws
ServletException,IOException
   {
      res.setContentType("text/html");
      PrintWriter pw = res.getWriter();
      pw.println("I am from doGet method");
      pw.close();
   }

   public void destroy()
   {
      System.out.println("Am from Destroy methods");
   }
 }
```

Output :


File Edit View History Bookmarks Tools Help
http://localhost:2.../ServletLifeCycle
localhost:24738/Practical7/ServletLifeCycle
Search
Most Visited Getting Started Latest Headlines Windows Marketplace Customize Links Free Hotmail Windows Windows Media
I am from doGet method

Practical No 6

Aim : Write a Servlet program to calculate product of two numbers.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include servlet file and, by default index.html present)

(index.html)

```
<html>
   <head>
      <title>TODO supply a title</title>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width">
   </head>
   <body>
      <form action="test" method="post">
         Enter x
         <input type="text" name="t1">
         <br>
         Enter y
         <input type="text" name="t2">
         <br>
         <input type="submit" value="product">
      </form>
    </body>
</html>
```

(test.java)

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet(urlPatterns = {"/test"})
public class test extends HttpServlet
{
   protected void doPost (HttpServletRequest req,HttpServletResponse res) throws
IOException,ServletException
   {
      PrintWriter pw = res.getWriter();
      res.setContentType("text/html");
```

```
        String s1=req.getParameter("t1");
        String s2=req.getParameter("t2");

        int x=Integer.parseInt(s1);
        int y=Integer.parseInt(s2);

        int z=x*y;
        pw.println("Product of  "+x+" and  "+y+" is "+z);
    }
}
```

Output :

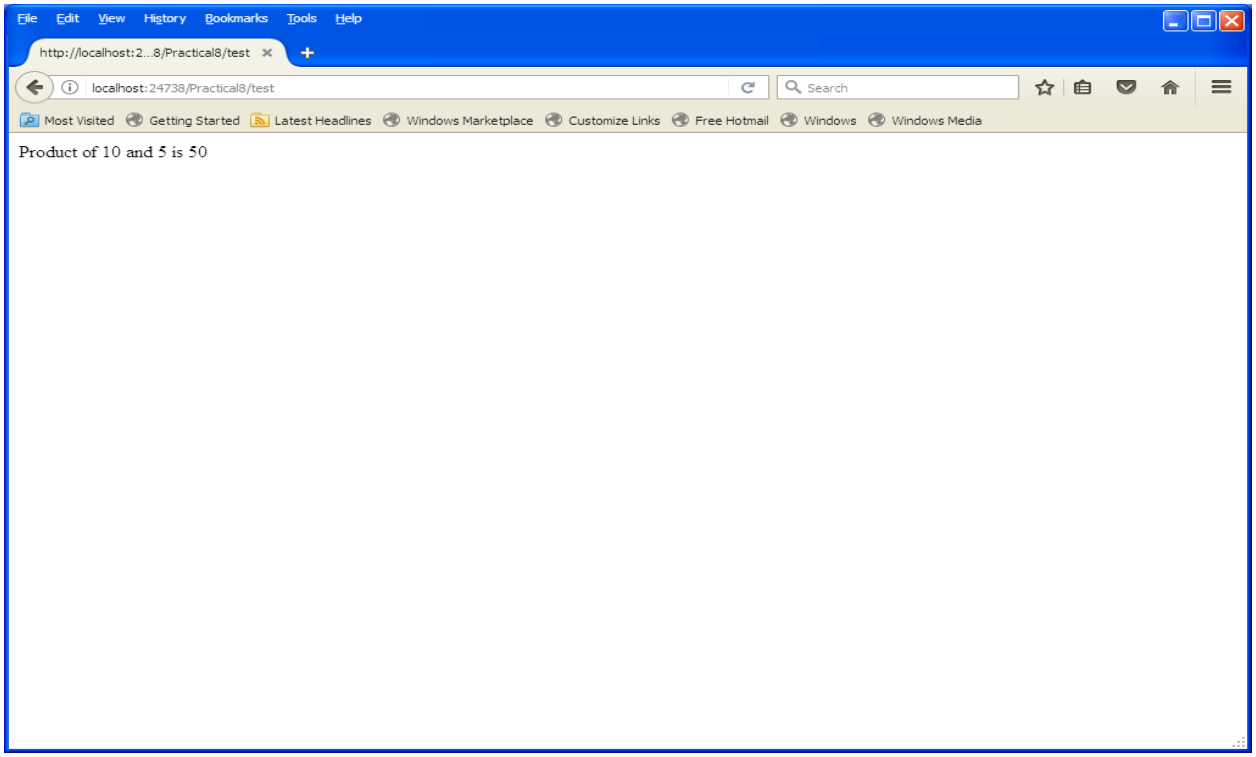
(index.html)

Enter x

Enter y

product

(test.java)



Practical No 7

Aim : Write a Servlet program to calculate Net Salary.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include servlet file and, by default index.html present)

(index.html)

```
<html>
   <head>
      <title>TODO supply a title</title>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width">
   </head>
   <body bgcolor="cyan">

      <form name="frm2" method="post" action="calsal">
         <center>
            Basic salary : : <input type="text" name="tsal" >
            <input type="submit" value="calculate salary">
              </center>
      </form>
   </body>
</html>
```

(calsal.java)

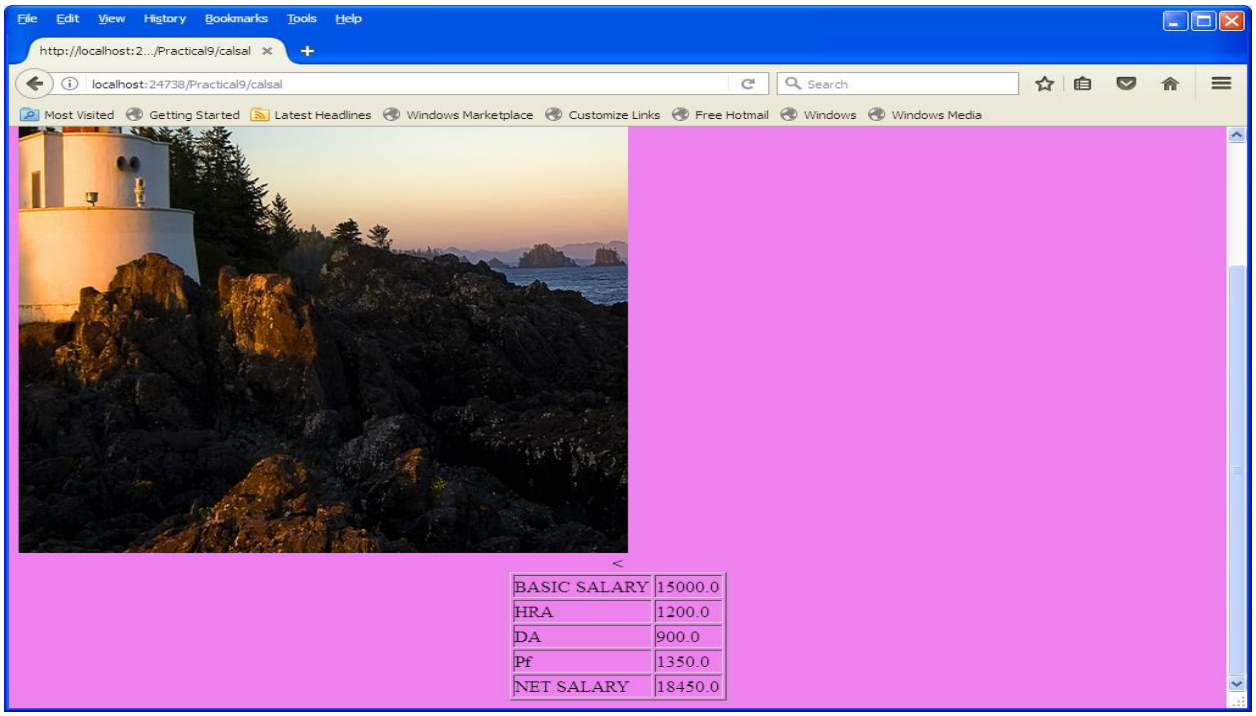
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet(urlPatterns = {"/calsal"})
public class calsal extends HttpServlet {

 protected void doPost (HttpServletRequest req,HttpServletResponse res) throws
IOException,ServletException
 {
    res.setContentType("text/html");
    PrintWriter pw=res.getWriter();
```

```
    float s=Float.parseFloat (req.getParameter("tsal"));
    float  HRA=s*8/100;
    float DA=s*6/100;
    float PF=s*9/100;
    float Nsal=s+HRA+DA+PF;
    pw.print("<body bgcolor=violet>");
    pw.print("<img src=Lighthouse.jpg width=500 height=600/>");
    pw.print("<center> <table border=1>");
    pw.print("<tr><td>BASIC SALARY</td><td>"+s+"</td></tr>");
       pw.print("<tr><<td>HRA</td><td>"+HRA+"</td></tr>");
       pw.print("<tr><td>DA</td><td>"+DA+"</td></tr>");
       pw.print("<tr><td>Pf</td><td>"+PF+"</td></tr>");
       pw.print("<tr><td>NET SALARY</td><td>"+Nsal+"</td></tr>");
    pw.print("</table></center></body>");
}
}
```

Output :
(index.html)

Basic salary : : [ ] calculate salary

(calsal.java)



Practical No 8

Aim : Write a Servlet & jdbc program to design login form.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include servlet file and, by default index.html present)

(index.html)

```
<html>
   <head>
      <title>TODO supply a title</title>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width">
   </head>
   <body>
     <form  name="form3" method="post" action="login_db">
         <center>
            Username : :<input type="text" name="tuser">
            <br>
            Password : : <input type="password" name="tpass">
            <br>
            <input type="submit"  value="Login">
         </center>
      </form>
   </body>
</html>
```

(login_db.java)

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;


@WebServlet(urlPatterns = {"/login_db"})
public class login_db extends HttpServlet
{
   Connection cn;
   PreparedStatement ps;
   ResultSet rs;
```

```
    protected void doPost (HttpServletRequest req,HttpServletResponse res)throws
IOException,ServletException
   {
      res.setContentType("text/html");
      PrintWriter pw=res.getWriter();
      String tuser=req.getParameter("tuser");
            String tpass=req.getParameter("tpass");
            try
            {
               Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
                     cn=DriverManager.getConnection("jdbc:odbc:test","system","server");
                     ps=cn.prepareStatement("select * from userdet where username=?  and
userpassword=?");
                     ps.setString(1,tuser);
                     ps.setString(2,tpass);
                     rs=ps.executeQuery();
                     if(rs.next())
                     {
                        pw.print("WELCOME");
                     }
                     else
                     {
                        pw.print("<body background=Chrysanthemum.jpg>");
                        pw.print("Invalid user detail");
                        pw.print("<br>");
                         pw.print("<a href=index.html>HOME PAGE</a></body>");
                     }
                        }catch(Exception e)
                     {
                     pw.print(e);
                     }

   }
}
```

create table:

```
create table userdet
(
        username varchar2(20),
        userpassword varchar2(20)
);

inser into userdet values('Rahul','1234');
```

Output :

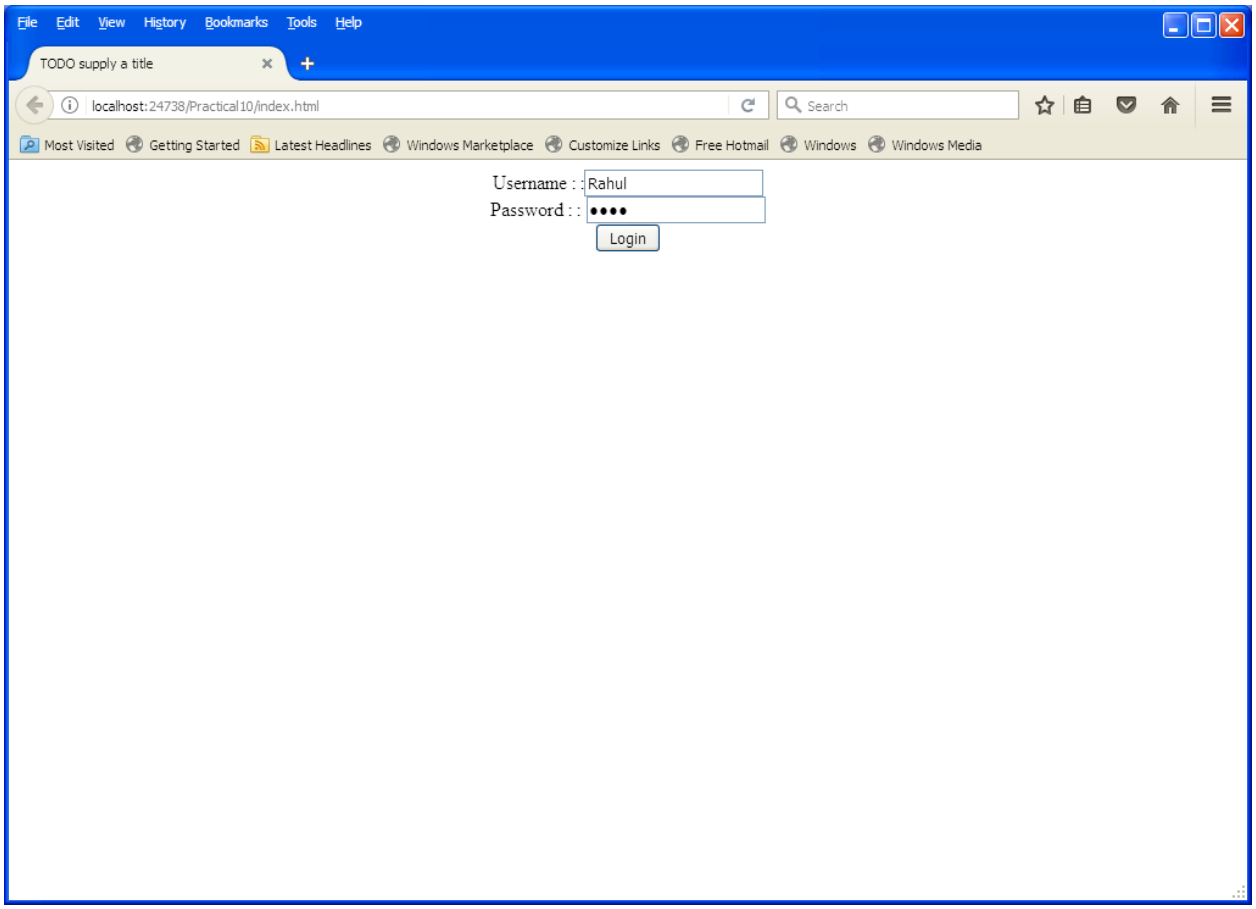
(index.html)

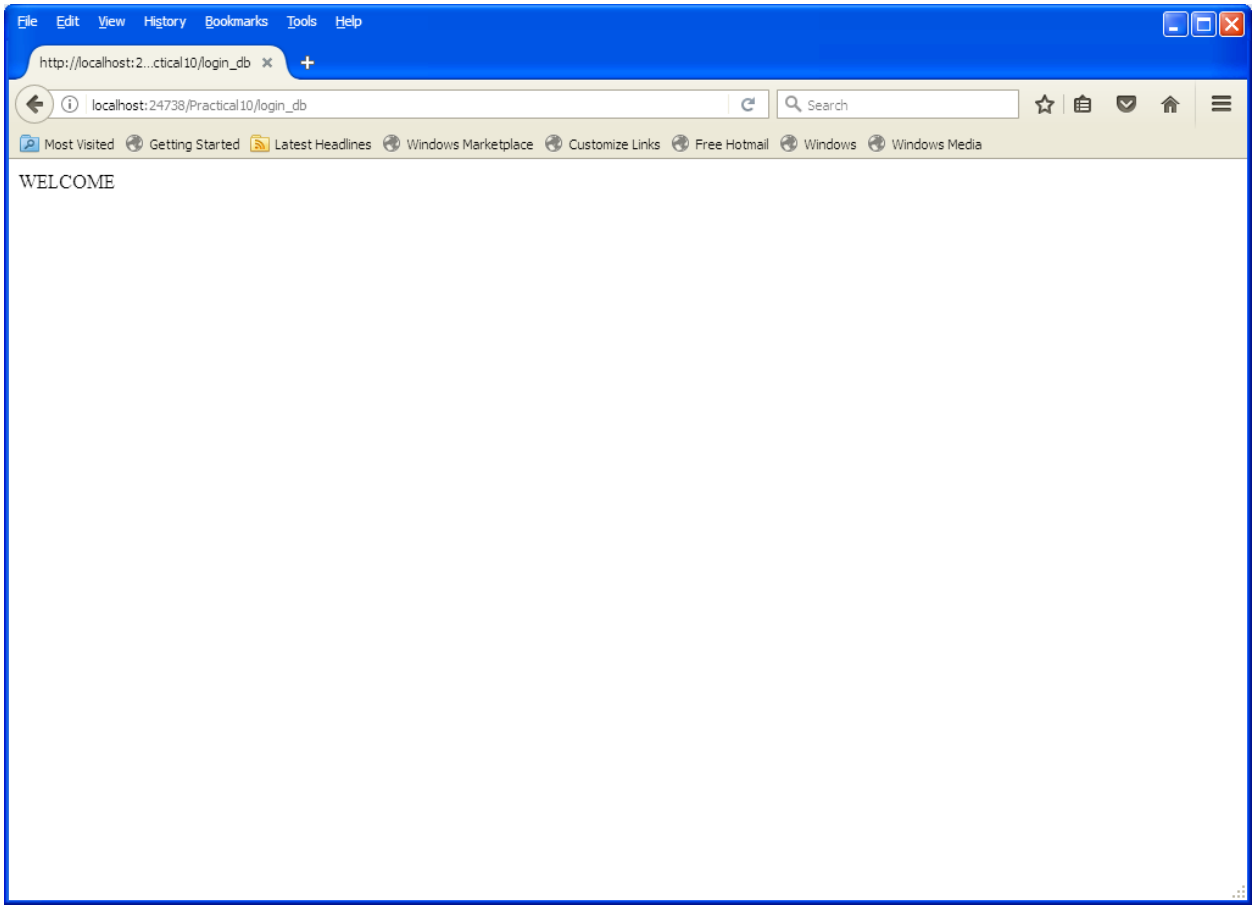
Username : :

Password : :

Login

(login_db.java)




File Edit View History Bookmarks Tools Help
http://localhost:2...ctical10/login_db
localhost:24738/Practical10/login_db
Search
Most Visited Getting Started Latest Headlines Windows Marketplace Customize Links Free Hotmail Windows Windows Media
WELCOME

Practical No 9

Aim : Write a jsp program to insert record in a database.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include jsp files)

(Department.jsp)

```
<%@page contentType="text/html"%>
<%@page pageEncoding="UTF-8"%>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">

<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
      <title>JSP Page</title>
   </head>
   <body>
      <form name="f1" method="GET" action="dept.jsp">
  Enter a Department number:    
  <input type="text" name="t1">
  <br><br>
  Enter a Department Name:    
  <input type="text" name="t2">
  <br><br>
  Enter a Department Location:    
  <input type="text" name="t3">
   <br><br>
   <input type="submit" value="Insert" Name="b1">
   </form>
   </body>
</html>
```

(dept.jsp)

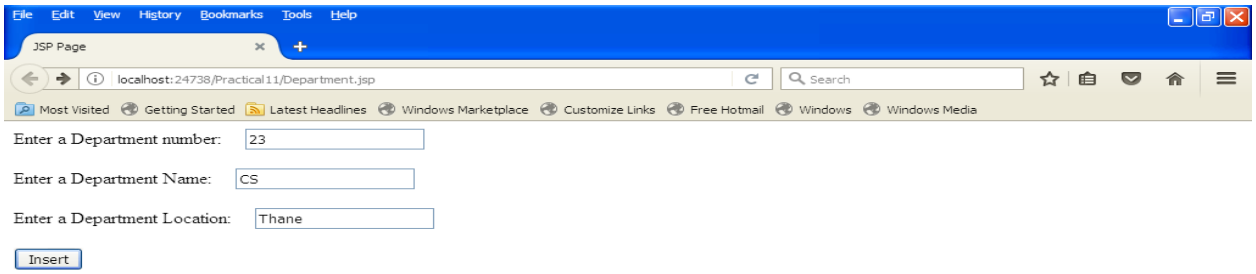
```
<%@page import ="java.sql.*" contentType="text/html"%>
<%@page pageEncoding="UTF-8"%>
```

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">

<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
      <title>JSP Page</title>
   </head>
   <body>
 <%

   try
         {
         int dno=Integer.parseInt(request.getParameter("t1"));
   String dname=request.getParameter("t2");
   String dloc=request.getParameter("t3");
         Connection con;
         Statement st;
         Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
         con=DriverManager.getConnection("Jdbc:Odbc:test","system","server");
         st=con.createStatement();
        st.executeUpdate("insert into dept values("+dno+",'"+dname+"','"+dloc+"')");
           out.println("Department No:"+dno+"<br>");
           out.println("Department Name:"+dname+"<br>");
           out.println("Department Location:"+dloc+"<br><br>");
           out.println("Record Inserted");
         }
         catch(Exception ex)
         {
            ex.printStackTrace();
            out.println(ex);
         }
   %>
   </body>
</html>
```

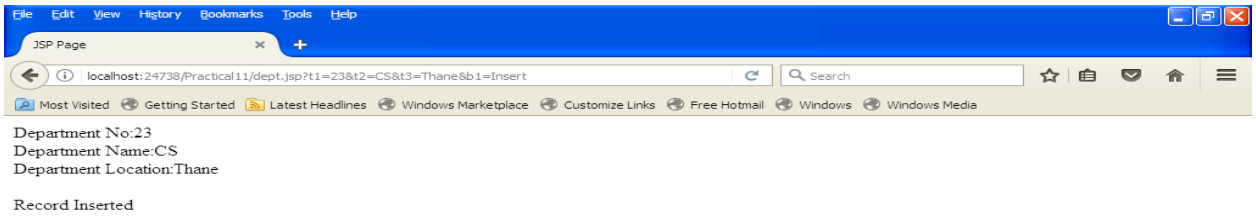
Create table dept
(
dno integer,
dname varchar2(20),
dloc varchar2(20)
)

Output :

(Department.jsp)



(dept.jsp)



Practical No 10

Aim : Write a jsp program to displaly current date.

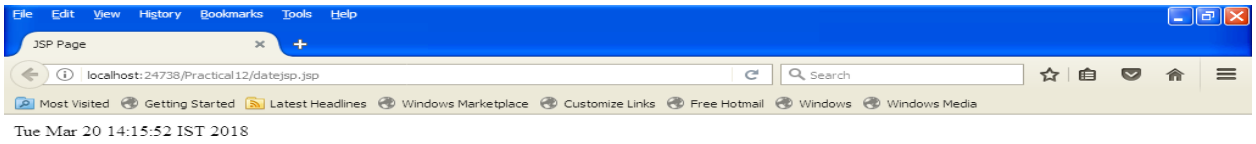
Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include jsp file)

(date.jsp)

```
<%@page contentType="text/html" import="java.util.*"%>
<%@page pageEncoding="UTF-8"%>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
   "http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Refresh" content="1"; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
    <% Date d=new Date();
    out.println(d.toString());
    %>
    </body>
</html>
```

Output :

(date.jsp)



Practical No 11

Aim : Write a JavaBean program to display date.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include jsp file and SessionBean file)

(GetTime.jsp)

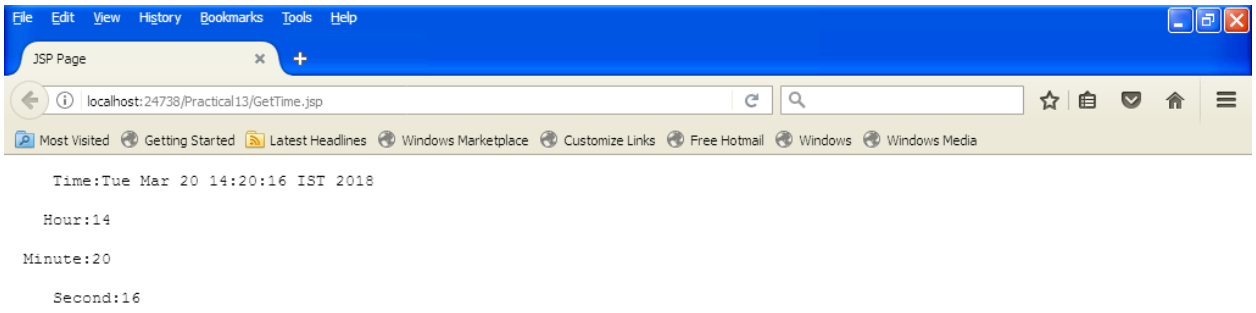
```
<%@page contentType="text/html"%>
<%@page pageEncoding="UTF-8"%>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">

<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

      <title>JSP Page</title>
   </head>
   <body>
<jsp:useBean class="GetTime.CalendarBean1" id="cal" />
<pre>
   Time:<jsp:getProperty name="cal" property="time" /><br>
  Hour:<jsp:getProperty name="cal" property="hour" /><br>
 Minute:<jsp:getProperty name="cal" property="minute" /><br>
   Second:<jsp:getProperty name="cal" property="second" /><br>
   </pre>
   </body>
</html>
```

(CalendarBean1.java)

```
package GetTime;

import java.util.Calendar;
import java.util.Date;
public class CalendarBean1
{
   private Calendar calendar;

   public CalendarBean1() {
      calendar=Calendar.getInstance();
   }

   public Calendar getCalendar() {
      return calendar;
   }

     public Date getTime()
```

```
    {
        return calendar.getTime();
    }

    public int getHour()
    {
        return calendar.get(Calendar.HOUR_OF_DAY);
    }
    public int getMinute()
    {
         return calendar.get(Calendar.MINUTE);
    }
    public int getSecond()
    {
         return calendar.get(Calendar.SECOND);
    }
}
```

Output :



Practical No 12

Aim : Write a JavaBean program to display student information.

Solution :
(File->New project->Java web application , add Glassfish Server)
(Right Click on project name and include jsp file and SessionBean file)

(student.jsp)

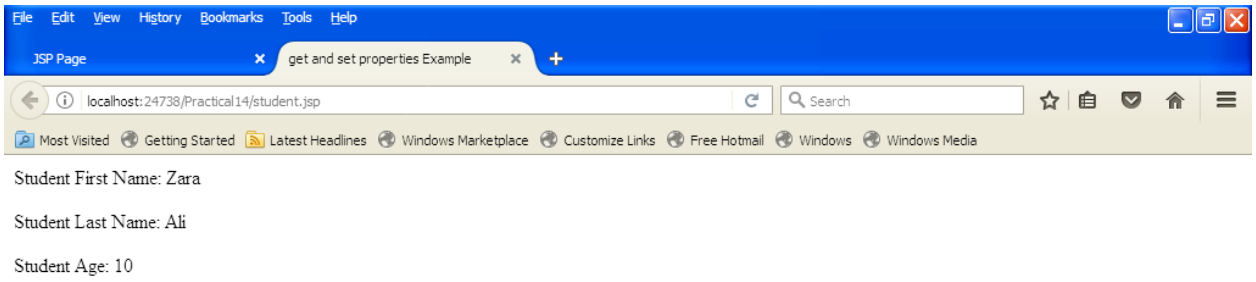
```
<html>
<head>
<title>get and set properties Example</title>
</head>
<body>
<jsp:useBean class="Student.StudentBean" id="students">
<jsp:setProperty name="students" property="firstName" value="Zara"/>
<jsp:setProperty name="students" property="lastName" value="Ali"/>
<jsp:setProperty name="students" property="age" value="10"/>
</jsp:useBean>
<p>Student First Name:
<jsp:getProperty name="students" property="firstName"/>
</p>
<p>Student Last Name:
<jsp:getProperty name="students" property="lastName"/>
</p>
<p>Student Age:
<jsp:getProperty name="students" property="age"/>
</p>
</body>
</html>
```

(StudentBean.java)

```
package Student;

import javax.ejb.Stateless;

@Stateless
public class StudentBean implements java.io.Serializable
{
private String firstName = null;
private String lastName = null;
private int age = 0;
public StudentBean() {
}
public String getFirstName(){
return firstName;
}
public String getLastName(){
```

```
return lastName;
}
public int getAge(){
return age;
}
public void setFirstName(String firstName){
this.firstName = firstName;
}
public void setLastName(String lastName){
this.lastName = lastName;
}
public void setAge(int age){
this.age = age;
}
}
```

Output :



Practical No 13

Aim : Write a JSON program to display data.

Solution :
(File->New project->Java application , add Glassfish Server)

(Practical15.java)

```
package practical15;
import org.json.simple.JSONObject;

public class Practical15 {

    public static void main(String[] args) {
        JSONObject obj = new JSONObject();
    obj.put("name", "Rahul");
    obj.put("num", new Integer(100));
    obj.put("balance", new Double(1000.21));
    obj.put("is_vip", new Boolean(true));
    System.out.print(obj);
    }

}
```

Output :

```
{"balance":1000.21,"num":100,"is_vip":true,"name":"Rahul"}
```

Practical No 14

Aim : Write a JSON program with HTML to display data.

Solution :
(File->New project->Java application , add Glassfish Server)

(jsoneg.html)

```
<html>
<head>
<title>JSON example</title>
<script language="javascript" >
var object1 = { "language" : "Java", "author" : "herbert schildt" };
document.write("<h1>JSON with JavaScript example</h1>");
document.write("<br>");
document.write("<h3>Language = " + object1.language+"</h3>");
document.write("<h3>Author = " + object1.author+"</h3>");
var object2 = { "language" : "C++", "author" : "E-Balagurusamy" };
document.write("<br>");
document.write("<h3>Language = " + object2.language+"</h3>");
document.write("<h3>Author = " + object2.author+"</h3>");
document.write("<hr />");
document.write(object2.language + " programming language can be studied " +
"from book written by " + object2.author);
document.write("<hr />");
</script>
</head>
<body>
</body>
</html>
```

Output :