1.GUI

```java
import java.sql.*;
import java.awt.event.*;
import java.awt.*;
import javax.swing.*;
class Student extends JFrame implements ActionListener {
    JButton btnAdd, btnBrowse,btnDele;
    JLabel labid,labname,labidlist,labnamelist;
    JTextArea tasid, tasname;
    JTextField tfStudId, tfStudName;
    Connection con;
    public Student() {
        btnAdd = new JButton("Add");
        btnBrowse = new JButton("Browse");
      //  btnDele=new JButton("Delete");
        labid=new JLabel("Student ID:");
        labname=new JLabel("Student Name:");
        //labidlist=new JLabel("ID");
       // labnamelist=new JLabel("Names");
        tasid = new JTextArea(20, 20);
        tasname = new JTextArea(20, 20);
        tfStudId = new JTextField(10);
        tfStudName = new JTextField(10);
        setTitle("Student Information");
        setSize(500, 400);
        setVisible(true);
        getContentPane().add(labid);
        getContentPane().add(tfStudId);
        getContentPane().add(labname);
        getContentPane().add(tfStudName);
        //getContentPane().add(labidlist);
        getContentPane().add(tasid);
        //getContentPane().add(labnamelist);
        getContentPane().add(tasname);
        getContentPane().add(btnAdd);
        getContentPane().add(btnBrowse);
       // getContentPane().add(btnDele);
        getContentPane().setLayout(new FlowLayout());
        btnAdd.addActionListener(this);
        btnBrowse.addActionListener(this);
        addWindowListener(new WindowAdapter(){
            public void windowOpened(WindowEvent e){
               tfStudId.requestFocus();
            }
        });
    }
    public static void main(String args[]) {
        new Student();
    }
    public void actionPerformed(ActionEvent ae) {
        if(ae.getSource() == btnAdd) {
            try {
personalConnection();
Statement st = con.createStatement();
String sid = tfStudId.getText();
```

```java
        String sname = tfStudName.getText();
        st.executeUpdate("insert into student values('"+sid+"','"+sname+"')");
                    tfStudId.setText("");
                    tfStudName.setText("");
        st.close();
        con.close();
            }catch(Exception e) { }
        }
        if(ae.getSource() == btnBrowse) {
            try {
        personalConnection();
        Statement st = con.createStatement();
        ResultSet rs = st.executeQuery("select * from student");
        tasid.setText("");
        tasname.setText("");
        while(rs.next()){
            tasid.append(rs.getString("sid") + "\n");
            tasname.append(rs.getString("sname") + "\n");
        }
        st.close();
        con.close();
            }catch(Exception e2) { }
        }

      if(ae.getSource() == btnDele)
      {
       try {
        personalConnection();
        Statement st = con.createStatement();
        st.executeUpdate("delete from student");

       }
       catch(Exception ee)
       {}
      }

      }

      public void personalConnection() {
         try {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE", "system", "system");
            System.out.println("Connected " + con);
         }catch(Exception e) { }
      }
}
```

2.Student Reg in using html

```java
import java.io.*;
import java.sql.*;
import javax.servlet.ServletException;
import javax.servlet.http.*;

public class RegisterStudent extends HttpServlet {
```

```java
    Connection conn = null;
    Statement stmt = null;
    PreparedStatement pstmt = null;
    ResultSet rs = null;
    public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOExce
ption    {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        String i=request.getParameter("studId");
        String n=request.getParameter("studName");
        String e=request.getParameter("studEmail");
        String c=request.getParameter("studNumber");
        String s=request.getParameter("studState");

        try{
            try{
                Class.forName("oracle.jdbc.OracleDriver");
            }catch(ClassNotFoundException ex1){
                ex1.printStackTrace();
            }
            conn=(Connection)DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","sit");
            stmt = conn.createStatement();
            pstmt=((java.sql.Connection)conn).prepareStatement("insert into registerstud values(?,?,?,?,?)");
            pstmt.setString(1,i);
            pstmt.setString(2,n);
            pstmt.setString(3,e);
            pstmt.setString(4,c);
            pstmt.setString(5,s);
            int j=pstmt.executeUpdate();
            if(j>0){
                out.println("<h1>You are successfully registered...<h1>");
                rs = stmt.executeQuery("select * from registerstud");
                String id, name, email, contact, state;
                id=name=email=contact=state="";
                while(rs.next()){
                    id = rs.getString("sid");
                    name = rs.getString("sname");
                    email = rs.getString("semail");
                    contact = rs.getString("scontact");
                    state = rs.getString("sstate");
                }
                    out.println("<h1> Student Id:"+id+"<br>");
                    out.println("<h1>Student Name: "+name+"<br>");
                    out.println("<h1> Student Email:"+email+"<br>");
                    out.println("<h1> Student Contact Number:"+contact+"<br>");
                    out.println("<h1>Student State: "+state+"<br>");
            }
            out.close();
            rs.close();
            stmt.close();
            pstmt.close();
            conn.close();
        }catch (Exception ex2) {
            ex2.printStackTrace();
```

```
            }
        }
    }
```

.html

```html
 <html>
   <body bgcolor="green" text="white">
      <center><h1>Registration Form</h1></center>
    <form action = "./test" method="POST">
           <table border=0>
               <tr><td>Student Id:</td><td><input type=text name=studId></td></tr>
               <tr><td>Student Name:</td><td><input type=text name=studName></td></tr>
               <tr><td>Student Email:</td><td><input type=text name=studEmail></td></tr>
               <tr><td>Student Contact Number:</td><td><input type=text name=studNumber></td></tr>
               <tr><td>State:</td>
                  <td><select name=studState>
                     <option>Karnataka</option>
                     <option>AndraPradesh</option>
                     <option>Tamilnadu</option>
                     <option>Kerala</option></select>
                   </td>
                </tr>
                <tr><td><input type=submit></td><td></td></tr>
           </table>
         </form>
    </body>
</html>
```

3.session

//SessionDemo.java

```java
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;

// Extend HttpServlet class
public class SessionDemo extends HttpServlet
{
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException
    {
        // Create a session object if it is already not  created.
        HttpSession session = request.getSession(true);
        // Get session creation time.
        Date createTime = new Date(session.getCreationTime());
        // Get last access time of this web page.
        Date lastAccessTime = new Date(session.getLastAccessedTime());

        String title = "Welcome Back to my website";
        Integer visitCount = new Integer(0);
        String visitCountKey = new String("visitCount");
        String userIDKey = new String("userID");
        String userID = new String("Viru");
```

```java
      // Check if this is new comer on your web page.
      if (session.isNew())
      {
         title = "Welcome to my website";
         session.setAttribute(userIDKey, userID);
      }
      else
      {
         visitCount = (Integer)session.getAttribute(visitCountKey);
         visitCount = visitCount + 1;
         userID = (String)session.getAttribute(userIDKey);
      }
      session.setAttribute(visitCountKey,  visitCount);

      // Set response content type
      response.setContentType("text/html");
      PrintWriter out = response.getWriter();

      String docType =
      "<!doctype html public \"-//w3c//dtd html 4.0 " +
      "transitional//en\">\n";

      out.println(docType +
         "<html>\n" +
         "<head><title>" + title + "</title></head>\n" +
         "<body bgcolor=\"#e5f7c0\">\n" +
         "<h1 align=\"center\">" + title + "</h1>\n" +
         "<h2 align=\"center\">Session Infomation</h2>\n" +
         "<table border=\"1\" align=\"center\">\n" +
         "<tr bgcolor=\"#eadf8c\">\n" +
         "<th>Session info</th><th>value</th></tr>\n" +
         "<tr>\n" +
         "  <td>id</td>\n" +
         "  <td>" + session.getId() + "</td></tr>\n" +
         "<tr>\n" +
         "  <td>Creation Time</td>\n" +
         "  <td>" + createTime +
         "  </td></tr>\n" +
         "<tr>\n" +
         "  <td>Time of Last Access</td>\n" +
         "  <td>" + lastAccessTime +
         "  </td></tr>\n" +
         "<tr>\n" +
         "  <td>User ID</td>\n" +
         "  <td>" + userID +
         "  </td></tr>\n" +
         "<tr>\n" +
         "  <td>Number of visits</td>\n" +
         "  <td>" + visitCount + "</td></tr>\n" +
         "</table>\n" +
         "</body></html>");
   }
}
```

```xml
<web-app>
   <servlet>
      <servlet-name>abc</servlet-name>
      <servlet-class>SessionDemo</servlet-class>
   </servlet>
   <servlet-mapping>
      <servlet-name>abc</servlet-name>
      <url-pattern>/test</url-pattern>
   </servlet-mapping>
</web-app>
```
........................
servelt1:
```java
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class UrlDemoServlet1 extends HttpServlet{
   public void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException{
      PrintWriter out = resp.getWriter();
  String name = req.getParameter("uname");
      out.println("<h2> Welcome to Advanced Java </h2>");
      out.println("<a href=./test2?name="+name+">Click here to get user name</a>");
   }
}
```

servlet2:
```java
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
//import javax.servlet.annotation.*;
//@WebServlet("/test1")
public class UrlDemoServlet2 extends HttpServlet{
   public void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException{
      PrintWriter out = resp.getWriter();
  String name = req.getParameter("name");
      out.println("<h1> Hi "+name+"Good Morning.....</h1>");
   }
}
```
.html
```html
<html>
   <body>
      <form action = "./test1" method="get">
    <h1> Enter Session Information </h1>
     <h2> Name: <input type = "text" name = "uname"></h2></br>
  <input type = "submit"/>
 </form>
   </body>
</html>
```
.xml
```xml
<web-app>
 <servlet>
   <servlet-name>UrlDemoServlet1</servlet-name>
   <servlet-class>UrlDemoServlet1</servlet-class>
 </servlet>
```

```
  <servlet-mapping>
    <servlet-name>UrlDemoServlet1</servlet-name>
    <url-pattern>/test1</url-pattern>
  </servlet-mapping>

  <servlet>
    <servlet-name>UrlDemoServlet2</servlet-name>
    <servlet-class>UrlDemoServlet2</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>UrlDemoServlet2</servlet-name>
    <url-pattern>/test2</url-pattern>
  </servlet-mapping>
</web-app>
```

4:Refresh

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public  class Auto extends HttpServlet
{
 public void service(HttpServletRequest req,HttpServletResponse res)throws IOException,ServletException
{
  res.setContenttype("text/html");
   PrintWriter pw=res.getWriter();
pw.println("<h1>Date and time: "+new java.util.Date());
res.setIntHeader("refresh",3);
pw.close();
}
}

<web-app>
 <servlet>
  <servet-name>Refresh</servlet-name>
  <servlet-class>Autorefresh</servlet-class>
 </servlet>
 <servlet-mapping>
  <servlet-name>refresh</servlet-name>
  <url-pattern>./test</url-pattern>
 </servlet-mapping>
</web-mapping>
..............................
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;
public class Refresh extends HttpServlet
{
 public void doGet(HttpServletRequest req,HttpServletResponse res)throws ServletException,IOException
 {
  res.setIntHeader("Refresh",5);
  res.setContentType("text/html");
  Calendar cal=new GregorianCalendar();
```

```java
    String am_pm;
    int hour=cal.get(Calendar.HOUR);
    int minute=cal.get(Calendar.MINUTE);
    int second=cal.get(Calendar.SECOND);

    if(cal.get(Calendar.AM_PM)==0)
      am_pm="AM";
    else
      am_pm="PM";
    String CT =hour+":"+minute+":"+second+":"+am_pm;
    PrintWriter out=res.getWriter();
    String title="Auto Refresh Page using servlet";
    out.println("<!docType html>\n"+
      "<html>\n"+
      "<head><title>"+title+"</title></head>\n"+
      "<body bgcolor=\"FOFOFO\">\n"+
      "<h1 align=\"center\">"+title+"</h1>\n"+
          "<p>current Time is:"+CT+"</p>\n");
}
public void doPost(HttpServletRequest req,HttpServletResponse res)throws IOException,ServletException
{
  doGet(req,res);
}
}
.xml
<web-app>
<servlet>
 <servlet-name>Refresh</servlet-name>
 <servlet-class>Refresh</servlet-class>
 </servlet>
<servlet-mapping>
 <servlet-name>Refresh</servlet-name>
 <url-pattern>/Refresh</url-pattern>
</servlet-mapping>
</web-app>
```