**Servlets**

**Index**

1. Write a simple Hello World Servlet Application.
2. Write a Servlet application implementing Servlet interface.
3. Write a servlet application to retrieve the data through request object.
4. Write a program using ServletConfig object to get the init parameters.
5. Write a simple login servlet application using HttpServlet class.
6. write a servlet program to retrieve the data from the database.
7. write a servlet application to register the user details in the database.
8. Write a servlet application to register student with client side validation.
9. write a servlet application to implement the single thread model interface (deprecated interface).
10. Write a program using RequestDispatcher to move the control using forward and include methods.
11. Write a servlet application to redirect the page to respective page after completion of authentication.
12. Write a servlet application to get the data from the web.xml file using ServletContext object.
13. Write a program to get the database related information from servletContext object and retrieving the data from the database.
14. Write a program to display userdetails from database using properties files.
15. Write a servlet application to call the servletcontext methods and request object methods.
16. Write a Servlet application to print date in the browser.
17. Write a Servlet application to print the init method message in service method.
18. Write a servlet application to download the excel file.
19. Write a servlet application to upload a file.
20. Write a servlet application using Connection Pooling to retrieve the data from the database.
21. Write a servlet application to maintain the session of a user using hidden formfields.
22. Write a servlet application to create a cookies and retrieving the cookie data along with java script.
23. Write a servlet application to maintain the session of the user using HttpSession class.
24. Write a servlet application to maintain the session of the user using urlrewriting.
25. Counting the number of users by using HttpSessionListener interface. This listener class executes when HttpSession event is generated.
26. Write a servlet application to create the database table using ServletContextListener interface.(Here table is created at the time of deploying the application in the server).
27. write a servlet program to retrieve the date from the database at the time of deployment using ServletContextListener Interface.
28. write a basic servlet application using the combination of Filter and servlet.
29. Write a Servlet application to verify the user and retrieve the products data from the database.
30. Write a servlet application using FilterConfig object to get the init parameter values.
31. Write a Filter application for password verification.
32. Write a servlet application to insert the data into the database and performing the validations using javascript
33. Write a mvc based servlet application to display user details in browser.
34. Write a servlet application using mvc desing pattern with validation.
35. write a servlet application to display the image on the browser.
36. Write a servlet application to to refresh the page for every 4 seconds.
37. Write a servlet application to count the number of hits to a web page.
38. Write a servlet application using user defined Exceptions
39. Write a Servlet application to send the mail through the gmail server (this application works through internet).
40. Write a servlet application to retrive the data from the database without reloding the whole page using servlets and ajax.
41. Write a program to perform the internationalization.
42. Write a program to add and subtract two numbers ?
43. Write a servlet application to print the servlet content in pdf format ?
44. Write a servlet application using annotations.
45. **Write a simple Hello World Servlet Application.**

**Servlet1:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.GenericServlet;

import javax.servlet.ServletException;

import javax.servlet.ServletRequest;

import javax.servlet.ServletResponse;

public class servlets1 extends GenericServlet {

public void service(ServletRequest req,ServletResponse res)throws

ServletException, IOException

{

res.setContentType("text/html");

PrintWriter out = res.getWriter();

out.println("<HTML>");

out.println("<HEAD><TITLE>Hello World</TITLE></HEAD>");

out.println("<BODY bgcolor=orange>");

out.println("<BIG>Hello World</BIG>");

out.println("</BODY></HTML>");

}

}

**web.xml:**

<web-app>

<servlet-name>servlets1</servlet-name>

<servlet-class>servlets1</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>servlets1</servlet-name>

<url-pattern>/servlet</url-pattern>

</servlet-mapping>

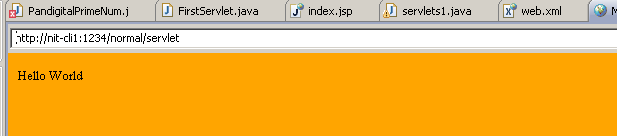
<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**Output:**



1. Write a Servlet application implementing Servlet interface.

**Servlets:**

import javax.servlet.\*;

public class Servlets implements Servlet

{

ServletConfig c;

public void init(ServletConfig config)

{

c=config;

System.out.println("hai this is init Method");

}

public void service(ServletRequest req,ServletResponse res)

{

System.out.println("hai this is Service Method");

}

public String getServletInfo()

{

System.out.println("getServletInfo method");

return null;

}

public ServletConfig getServletConfig()

{

System.out.println("getServletconfig method");

return c;

}

public void destroy()

{

System.out.println("Destroy Method");

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>Servlets</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

</web-app>

1. Write a servlet application to retrieve the data through request object.

index.html:

<html>

<body bgcolor="orange">

<form action="/action">

Name:<input type="text" name="userName"/><br/>

<input type="submit" value="go"/>

</form>

</body>

</html>

**FirstServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

//appending the username in the query string

out.print("<a href='servlet2?uname="+n+"'>visit</a>");

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**SecondServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//getting value from the query string

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

out.print("Hello "+n);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>FirstServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>two</servlet-name>

<servlet-class>SecondServlet</servlet-class>

</servlet>

<servlet-mapping>

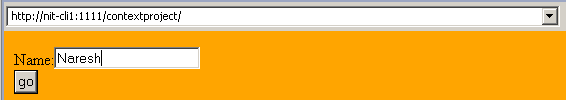
<servlet-name>two</servlet-name>

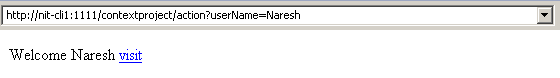
<url-pattern>/servlet2</url-pattern>

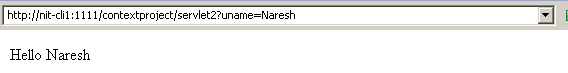
</servlet-mapping>

</web-app>

Output:







1. Write a program using ServletConfig object to get the init parameters.

**Servlets.java**:

**import** java.io.\*;

**import** javax.servlet.\*;

**import** java.util.\*;

**public** **class** DemoServlet **extends** GenericServlet {

**public** **void** service(ServletRequest req, ServletResponse res)**throws** ServletException, IOException {

res.setContentType("text/plain");

PrintWriter out = res.getWriter();

out.println("Init Parameters:");

Enumeration e = getInitParameterNames();

**while**(e.hasMoreElements())

{

String name = (String) e.nextElement();

out.println(name +": "+ getInitParameter(name));

}

out.println(getServletName());

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>MyServletName</servlet-name>

<servlet-class> DemoServlet </servlet-class>

<init-param>

<param-name>initial</param-name>

<param-value>1000 </param-value>

</init-param>

</servlet>

<servlet-mapping>

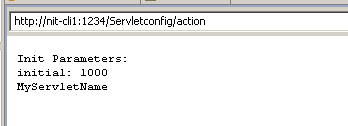
<servlet-name>MyServletName</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

</web-app>

Output:



1. Write a simple login servlet application using HttpServlet class.

**index.html:**

<form action="servlet1" method="post">

Name:<input type="text" name="username"/><br/><br/>

Password:<input type="password" name="userpass"/><br/><br/>

<input type="submit" value="login"/>

</form>

**FirstServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class FirstServlet extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response)throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

String p=request.getParameter("userpass");

if(LoginDao.validate(n, p)){

RequestDispatcher rd=request.getRequestDispatcher("servlet2");

rd.forward(request,response);

}

else{

out.print("Sorry username or password error");

RequestDispatcher rd=request.getRequestDispatcher("index.html");

rd.include(request,response);

}

out.close();

}

}

**LoginDao.java:**

import java.sql.\*;

public class LoginDao {

public static boolean validate(String name,String pass){

boolean status=false;

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

PreparedStatement ps=con.prepareStatement("select \* from userreg where name=? and pass=?");

ps.setString(1,name);

ps.setString(2,pass);

ResultSet rs=ps.executeQuery();

status=rs.next();

}catch(Exception e){System.out.println(e);}

return status;

}

}

**WelcomeServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class WelcomeServlet extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

out.close();

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>FirstServlet</servlet-name>

<servlet-class>FirstServlet</servlet-class>

</servlet>

<servlet>

<servlet-name>WelcomeServlet</servlet-name>

<servlet-class>WelcomeServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>FirstServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>WelcomeServlet</servlet-name>

<url-pattern>/servlet2</url-pattern>

</servlet-mapping>

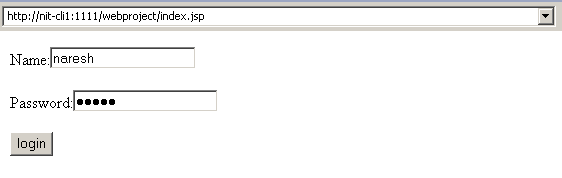
<welcome-file-list>

<welcome-file>index.html</welcome-file>

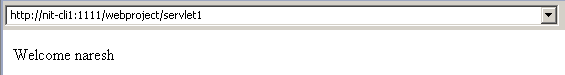
</welcome-file-list>

</web-app>

**Input:**



Output:



1. write a servlet program to retrieve the data from the database.

**index.html:**

<form action="servlet/Search">

Enter your Rollno:<input type="text" name="roll"/><br/>

<input type="submit" value="search"/>

</form>

Search.java:

import java.io.\*;

import java.sql.\*;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Search extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String empid=request.getParameter("roll");

int eid=Integer.valueOf(empid);

try{Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

PreparedStatement ps=con.prepareStatement("select \* from emptable where eid=?");

ps.setInt(1,eid);

out.println("<html><body>");

out.print("<table width=50% border=1>");

out.print("<caption>Result:</caption>");

ResultSet rs=ps.executeQuery();

/\* Printing column names \*/

ResultSetMetaData rsmd=rs.getMetaData();

int total=rsmd.getColumnCount();

out.print("<tr>");

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

{

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

}

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

/\* Printing result \*/

while(rs.next())

{

out.print("<tr><td>"+rs.getInt(1)+"</td><td>"+rs.getString(2)+"</td><td>"+rs.getFloat(3)+"</td></tr>");

}

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

out.println("</body></html>");

}catch (Exception e2) {e2.printStackTrace();}

finally{out.close();}

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>Search</servlet-name>

<servlet-class>Search</servlet-class>

</servlet>

<servlet-mapping>

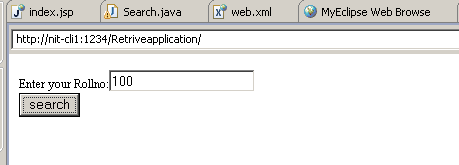
<servlet-name>Search</servlet-name>

<url-pattern>/servlet/Search</url-pattern>

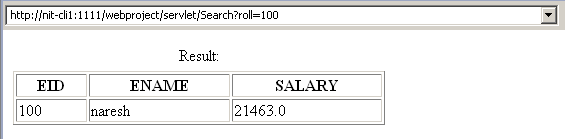
</servlet-mapping>

</web-app>

Input:



Output:



1. write a servlet application to register the user details in the database.

**register.html:**

<html>

<body>

<form action="servlet/Register" method="post">

Name:<input type="text" name="userName"/><br/><br/>

Password:<input type="password" name="userPass"/><br/><br/>

Email Id:<input type="text" name="userEmail"/><br/><br/>

Country:

<select name="userCountry">

<option>India</option>

<option>Pakistan</option>

<option>other</option>

</select>

<br/><br/>

<input type="submit" value="register"/>

</form>

</body>

</html>

**Register.java:**

/\*

Create table:

create table registeruser(username varchar2(8),upass varchar2(8),email varc

har2(8),country varchar2(8));

\*/

**Register.java:**

import java.io.\*;

import java.sql.\*;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Register extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response)throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

String p=request.getParameter("userPass");

String e=request.getParameter("userEmail");

String c=request.getParameter("userCountry");

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

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

ps.setString(1,n);

ps.setString(2,p);

ps.setString(3,e);

ps.setString(4,c);

int i=ps.executeUpdate();

if(i>0)

out.print("You are successfully registered...");

}catch (Exception e2)

{System.out.println(e2);}

out.close();

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>Register</servlet-name>

<servlet-class>Register</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Register</servlet-name>

<url-pattern>/servlet/Register</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>register.html</welcome-file>

</welcome-file-list>

</web-app>

**Output:**

You are successfully registered

1. Write a servlet application to register student with client side validation.

**Index.jsp:**

<script type=*"text/javascript"*>

**function** **validateForm**()

{

**var** username=document.myform.userName.value;

**var** password=document.myform.userPass.value;

**var** email=document.myform.userEmail.value;

**if**(username==""||password==""||email=="")

{

alert("username and password not null");

**return** **false**;

}

**return** **true**;

}

</script>

<form name=*"myform"* action=*"./servlet"* onsubmit=*"return validateForm();"* method=*"post"*>

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

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

Email Id:<input type=*"text"* name=*"userEmail"*/><br/>

Country:

<select name=*"userCountry"*>

<option>India</option>

<option>srilanka</option>

<option>pakistan</option>

<option>other</option>

</select>

<br/>

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

</form>

**Register.java:**

import java.io.\*;

import java.sql.\*;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Register extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

String p=request.getParameter("userPass");

String e=request.getParameter("userEmail");

String c=request.getParameter("userCountry");

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

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

ps.setString(1,n);

ps.setString(2,p);

ps.setString(3,e);

ps.setString(4,c);

int i=ps.executeUpdate();

if(i>0)

out.print("You are successfully registered...");

}catch (Exception e2) {System.out.println(e2);}

out.close();

}

}

**Web.xml:**

<web-app>

<servlet>

<servlet-name>Register</servlet-name>

<servlet-class>Register</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Register</servlet-name>

<url-pattern>/servlet</url-pattern>

</servlet-mapping>

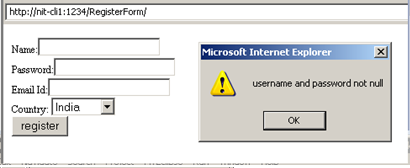
<welcome-file-list>

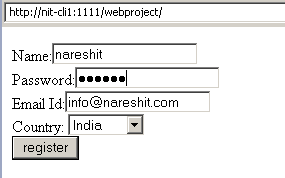
<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

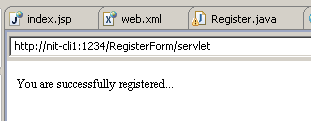
</web-app>

**Input:**





Output:



1. write a servlet application to implement the single thread model interface (deprecated interface).

**index.html:**

<a href="servlet1">click here to invoke single threaded servlet</a>

**MyServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.SingleThreadModel;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class MyServlet extends HttpServlet implements SingleThreadModel{

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.print("welcome");

try{Thread.sleep(10000);}catch(Exception e){e.printStackTrace();}

out.print(" to servlet");

out.close();

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>MyServlet</servlet-name>

<servlet-class>MyServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>MyServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>index.html</welcome-file>

</welcome-file-list>

</web-app>

Output:

Welcome to servlet

1. **Write a program using RequestDispatcher to move the control using forward and include methods.**

**Index.jsp:**

<form action=*"simple"* method=*"get"*>

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

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

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

</form>

**Simple.java:**

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.\*;

**import** javax.servlet.http.\*;

**public** **class** Simple **extends** HttpServlet {

**public** **void** doGet(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String p=request.getParameter("userPass");

**if**(p.equals("servlet")){

RequestDispatcher rd=request.getRequestDispatcher("welcome");

rd.forward(request, response);

}

**else**{

out.print("Sorry username or password error!");

RequestDispatcher rd=request.getRequestDispatcher("login.html");

rd.include(request, response);

}

}

}

**WelcomeServlet.jsp:**

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.ServletException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** WelcomeServlet **extends** HttpServlet {

**public** **void** doGet(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

}

}

**Web.xml:**

<web-app>

<servlet>

<servlet-name>jj</servlet-name>

<servlet-class>WelcomeServlet</servlet-class>

</servlet>

<servlet>

<servlet-name>kk</servlet-name>

<servlet-class>Simple</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>jj</servlet-name>

<url-pattern>/welcome</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>kk</servlet-name>

<url-pattern>/simple</url-pattern>

</servlet-mapping>

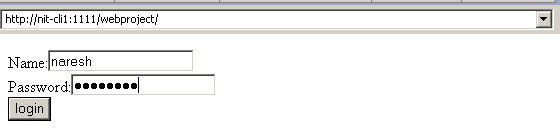
<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

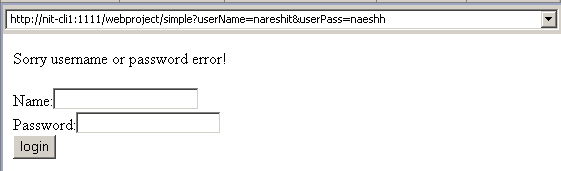
</welcome-file-list>

</web-app>

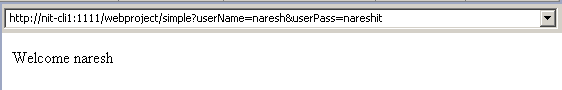
Input:



Wrong input:



**Currect input:**

****

1. Write a servlet application to redirect the page to respective page after completion of authentication.

**Index.jsp:**

<script language=*"javascript"*>

**function** **validateForm**()

{

**var** x=document.myForm.username.value;

**var** y=document.myForm.password.value;

**if**(x==""||y==""){

alert("username and password name must be filled out");

**return** **false**;

}

**return** **true**;

}

</script>

<form name=*"myForm"* action=*"./login"* onsubmit=*"return validateForm()"* method=*"post"*>

<p>Enter UserName: <input type=*"text"* name=*"username"* size=*"20"*></p><br><br>

<p>Enter Password: <input type=*"text"* name=*"password"* size=*"20"*></p><br><br>

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

</form>

</html>

**SendRedirectServlet.java:**

import java.io.\*;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SendRedirectServlet extends HttpServlet{

Connection con=null;

PreparedStatement ps=null;

ResultSet rs=null;

public void init() throws ServletException {

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

}catch (SQLException e) {

e.printStackTrace();} catch (ClassNotFoundException e1) {

e1.printStackTrace();

}

}

public void service(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String name = request.getParameter("username");

String password = request.getParameter("password");

try {

ps= con.prepareStatement("select \*from login where username=? and password=?");

ps.setString(1, name);

ps.setString(2, password);

rs=ps.executeQuery();

while(rs.next())

{

response.sendRedirect("success.jsp");

}

} catch (SQLException e) {

e.printStackTrace();

}

}

}

**Web.xml:**

<web-app>

<servlet>

<servlet-name>ll</servlet-name>

<servlet-class>SendRedirectServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>ll</servlet-name>

<url-pattern>/login</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**Success.jsp:**

<html>

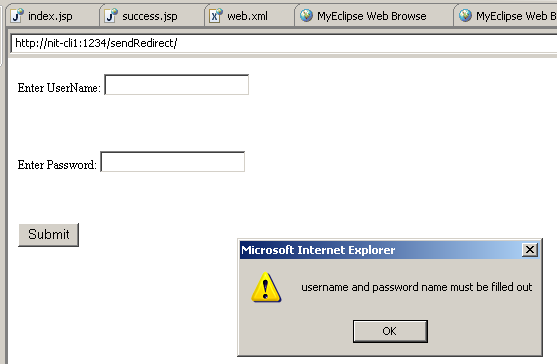
<body bgcolor=*"blue"*>

<h1>welcome to Naresh Technology </h1>

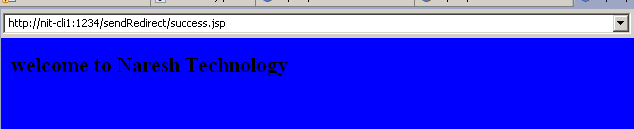
</body>

</html>

INPUT:



OUTPUT:



1. Write a servlet application to get the data from the web.xml file using ServletContext object.

**index.jsp:**

<html>

<body bgcolor="#76761">

<font face="verdana" size="2px">

<form action="./action" method="post">

Example on ServletContext<br>

<input type="submit" value="Click Here">

</form>

</font>

</body>

</html>

**Servlets.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletContext;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Servlets extends HttpServlet

{ public void doPost(HttpServletRequest req,HttpServletResponse res)throws ServletException,IOException

{

PrintWriter pw=res.getWriter();

res.setContentType("text/html");

// I am using 2nd way to create Context object

ServletContext context=getServletContext();

String s1=context.getInitParameter("n1");

String s2=context.getInitParameter("n2");

pw.println("n1 value is " +s1+ " and n2 is " +s2);

pw.close();

}

}

web.xml:

<web-app>

<context-param>

<param-name> n1 </param-name>

<param-value> 100 </param-value>

</context-param>

<context-param>

<param-name> n2 </param-name>

<param-value> 200 </param-value>

</context-param>

<servlet>

<servlet-name>onServletContext</servlet-name>

<servlet-class>Servlets</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>onServletContext</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>form.html</welcome-file>

</welcome-file-list>

</web-app>

Output:

n1 value is:100

And n2 value is:200

1. Write a program to get the database related information from servletContext object and retrieving the data from the database.

**Index.jsp:**

<a href=*"servlet1"*>click here</a>

**DemoServlet.java:**

**import** java.io.\*;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.ResultSet;

**import** java.sql.Statement;

**import** javax.servlet.\*;

**import** javax.servlet.http.\*;

**public** **class** DemoServlet **extends** HttpServlet {

Connection con=**null**;

**public** **void** doGet(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

ServletConfig config=getServletConfig();

String driver=config.getInitParameter("driver");

String url=config.getInitParameter("url");

String username=config.getInitParameter("username");

String password=config.getInitParameter("password");

**try**{

Class.*forName*(driver);

con=DriverManager.*getConnection*(url,username,password);

Statement st=con.createStatement();

String sql="select \*from registeruser";

ResultSet rs=st.executeQuery(sql);

out.println("<html><body><table>");

**while**(rs.next())

{

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

out.println("<h1>"+rs.getString(1)+","+rs.getString(2)+","+rs.getString(3)+","+rs.getString(4)+"</h1>");

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

}

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

}**catch** (Exception e) {

e.printStackTrace();

}

out.close();

}

}

**Web.xml:**

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app >

<servlet>

<servlet-name>DemoServlet</servlet-name>

<servlet-class>DemoServlet</servlet-class>

<init-param>

<param-name>driver</param-name>

<param-value>oracle.jdbc.driver.OracleDriver</param-value>

</init-param>

<init-param>

<param-name>url</param-name>

<param-value>jdbc:oracle:thin:@localhost:1521:xe</param-value>

</init-param>

<init-param>

<param-name>username</param-name>

<param-value>system</param-value>

</init-param>

<init-param>

<param-name>password</param-name>

<param-value>manager</param-value>

</init-param>

</servlet>

<servlet-mapping>

<servlet-name>DemoServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

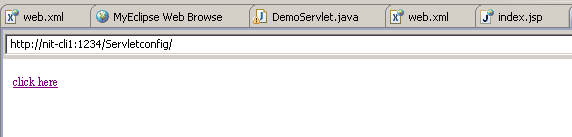
<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**Input:**

****

**Output:**

****

1. **write a program to display userdetails from database using properties files.**

**Index.jsp:**

<html>

<body>

This is my JSP page. <br>

</body>

<form action=*"./login"* method=*"get"*>

username :<input type=*"text"* name=*"username"*><br>

password:<input type=*"text"* name=*"password"*><br>

<input type=*"submit"* value=*"send"*>

</form>

</html>

**LoginServlet.java:**

**import** java.io.IOException;

**import** javax.servlet.RequestDispatcher;

**import** javax.servlet.ServletException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** com.nit.LoginBean;

**public** **class** LoginServlet **extends** HttpServlet {

@Override

**public** **void** doPost(HttpServletRequest req, HttpServletResponse resp)**throws** ServletException, IOException {

String uname=req.getParameter("username");

String password=req.getParameter("password");

PersonDao pd=**new** PersonDao();

LoginBean pd1=(LoginBean) pd.getPerson(uname,password);

System.*out*.println("pdddddddddddddddddddddd"+pd1);

req.setAttribute("persondetails",pd1 );

**if**(pd1!=**null**)

{

RequestDispatcher rd=req.getRequestDispatcher("success.jsp");

rd.forward(req, resp);

}

// resp.sendRedirect("success.jsp");

}

**public** **void** doGet(HttpServletRequest req, HttpServletResponse resp)

**throws** ServletException, IOException {

doPost(req,resp);

}

}

**PersonDao.java:**

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.util.ArrayList;

import java.util.Collection;

import com.nit.LoginBean;

public class PersonDao {

Connection con=null;

public LoginBean getPerson(String un,String pass)

{

LoginBean l = null;

int x;

try {

con=GetConnection.getConnection();

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

ps.setString(1,un);

ps.setString(2,pass);

ResultSet rs=ps.executeQuery();

con.commit();

//ArrayList al=new ArrayList();

while(rs.next())

{

l=new LoginBean();

l.setName(rs.getString(1));

l.setPassword(rs.getString(2));

l.setAddr(rs.getString(3));

l.setState(rs.getString(4));

l.setMail(rs.getString(5));

}

}catch (Exception e) {

}

return l;

}

}

**GetConnection.java:**

import java.io.File;

import java.io.FileInputStream;

import java.io.IOException;

import java.io.InputStream;

import java.io.InputStreamReader;

import java.net.URL;

import java.sql.\*;

import java.util.Properties;

public class GetConnection

{

public static Connection getConnection() throws ClassNotFoundException, SQLException, IOException

{

InputStream is=GetConnection.class.getClassLoader().getResourceAsStream("jdbc.properties");

Properties p=new Properties();

p.load(is);

String url=p.getProperty("url");

String username=p.getProperty("user");

String password=p.getProperty("password");

Class.forName(p.getProperty("driver") );

System.out.println("driver is loaded");

Connection con=DriverManager.getConnection(url,username,password);

return con;

}

public static void main(String[] args) throws ClassNotFoundException, SQLException, IOException {

GetConnection.getConnection();

}

}

**LoginBean.java:**

**package** com.nit;

**public** **class** LoginBean {

String name,password;

String addr,mail,state;

**public** String getAddr() {

**return** addr;

}

**public** **void** setAddr(String addr) {

**this**.addr = addr;

}

**public** String getMail() {

**return** mail;

}

**public** **void** setMail(String mail) {

**this**.mail = mail;

}

**public** String getState() {

**return** state;

}

**public** **void** setState(String state) {

**this**.state = state;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getPassword() {

**return** password;

}

**public** **void** setPassword(String password) {

**this**.password = password;

}

}

**jdbc.properties:**

driver=oracle.jdbc.driver.OracleDriver

url=jdbc:oracle:thin:@localhost:1521:xe

user=system

password=manager

**web.xml:**

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app>

<servlet>

<servlet-name>ll</servlet-name>

<servlet-class>LoginServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>ll</servlet-name>

<url-pattern>/login</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**success.jsp:**

<%@page import=*"com.nit.LoginBean"* %>

<body bgcolor=*"yellow"*>

<%

LoginBean p=(LoginBean)request.getAttribute("persondetails");

%><br/>

<h1>username:<%=p.getName() %><br></h1>

<h1>password:<%=p.getPassword() %><br></h1>

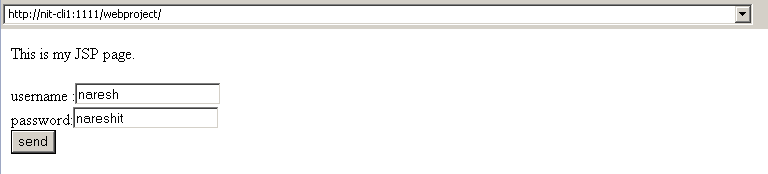
<h1>Adder:<%=p.getAddr() %><br/></h1>

<h1>state:<%=p.getState() %><br></h1>

<h1>mail:<%=p.getMail() %><br></h1>

</body>

**Input:**

****

**Output:**

****

1. **write a servlet application to call the servletcontext methods and request object methods.**

**Servlets.java:**

import javax.servlet.\*;

import java.util.\*;

import java.io.\*;

import javax.servlet.http.\*;

public class Servlets extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse res)throws ServletException,IOException

{

res.setContentType("text/html");

PrintWriter pw=res.getWriter();

ServletContext context=getServletContext();

pw.println(req.getServerName());

pw.println(context.getServerInfo());

pw.println(req.getServerPort());

pw.println(context.getServletContextName());

pw.println("context.getAttributeNames()");

Enumeration e=context.getAttributeNames();

while(e.hasMoreElements())

{

String name=(String)e.nextElement();

pw.println("context.getAttribute(\""+name+"\"):"+context.getAttribute(name));

}

}

private String getServletInfoName(String serverInfo)

{

int slash=serverInfo.indexOf('/');

if(slash==-1)

return serverInfo;

else return serverInfo.substring(0,slash);

}

private String getServerInfoVersion(String serverInfo)

{

int slash=serverInfo.indexOf('/');

if(slash==-1)return null;

int space=serverInfo.indexOf(' ',slash);

if(space==-1)space=serverInfo.length();

return serverInfo.substring(slash+1,space);

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>Servlets</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

</web-app>

1. write a Servlet application to print date in the browser.

**Servlet5.java:**

import java.io.IOException;

import java.io.PrintWriter;

import java.util.Date;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

public class servlet5 extends HttpServlet{

public void doGet(HttpServletRequest req,HttpServletResponse res)throws IOException,ServletException

{

HttpSession ses=req.getSession(true);

PrintWriter pw=res.getWriter();

res.setContentType("text/html");

pw.println("<big>");

Date d=(Date)req.getAttribute("date");

if(d!=null)

{

pw.println("last accessed:"+d+"<br>");

}

d=new Date();

ses.setAttribute("date",d);

pw.println("current Date:"+d);

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>servlet5</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

</web-app>

**Output:**

current Date:Wed Oct 09 17:13:52 GMT+05:30 2013

1. Write a Servlet application to print the init method message in service method.

**Servlets6.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.\*;

public class servlet6 extends GenericServlet{

String msg;

public void init(ServletConfig config)

{

msg="Hello from java Servlets";

}

public void service(ServletRequest req,ServletResponse res)throws IOException,ServletException

{PrintWriter pw=res.getWriter();

res.setContentType("text/html");

pw.println("<html><head><title>Using The Init Method</title></head>");

pw.println("<body>");

pw.println("using the init method");

pw.println(msg);

pw.println("</body></html>");

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>servlet6</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

</web-app>

Output:

using the init method Hello from java Servlets.

1. Write a servlet application to download the excel file.

**index.jsp:**

<a href="servlet/DownloadServlet">download the excel file</a>

**Servlets.java:**

import java.io.\*;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Servlets extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String filename = "emptable.xls";

String filepath = "C:/Documents and Settings/JAVAPROJECTS/Desktop/programs/adv java/jdbc/type1 driver/excell database/";

response.setContentType("APPLICATION/vnd.ms-excel");

response.setHeader("Content-Disposition","attachment; filename=\"" + filename + "\"");

FileInputStream fileInputStream = new FileInputStream(filepath + filename);

int i;

while ((i=fileInputStream.read()) != -1) {

out.write(i);

}

fileInputStream.close();

out.close(); }}

**web.xml:**

<web-app>

<servlet>

<description>This is the description of my J2EE component</description>

<display-name>This is the display name of my J2EE component</display-name>

<servlet-name>DownloadServlet</servlet-name>

<servlet-class>Servlets</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>DownloadServlet</servlet-name>

<url-pattern>/servlet/DownloadServlet</url-pattern>

</servlet-mapping>

</web-app>

1. Write a servlet application to upload a file.

Index.html:

<html>

<head>

<title>File Uploading Form</title>

</head>

<body>

<h3>File Upload:</h3>

Select a file to upload: <br />

<form action=*"UploadServlet"* method=*"post"*

enctype=*"multipart/form-data"*>

<input type=*"file"* name=*"file"* size=*"50"* />

<br />

<input type=*"submit"* value=*"Upload File"* />

</form>

</body>

</html>

UploadServlet.java:

// Import required java libraries

import java.io.\*;

import java.util.\*;

import javax.servlet.ServletConfig;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import org.apache.commons.fileupload.FileItem;

import org.apache.commons.fileupload.FileUploadException;

import org.apache.commons.fileupload.disk.DiskFileItemFactory;

import org.apache.commons.fileupload.servlet.ServletFileUpload;

import org.apache.commons.io.output.\*;

public class UploadServlet extends HttpServlet {

private boolean isMultipart;

private String filePath;

private int maxFileSize = 50 \* 1024;

private int maxMemSize = 4 \* 1024;

private File file ;

public void init( ){

// Get the file location where it would be stored.

filePath =

getServletContext().getInitParameter("file-upload");

}

public void doPost(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, java.io.IOException {

// Check that we have a file upload request

isMultipart = ServletFileUpload.isMultipartContent(request);

response.setContentType("text/html");

java.io.PrintWriter out = response.getWriter( );

if( !isMultipart ){

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet upload</title>");

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

out.println("<body>");

out.println("<p>No file uploaded</p>");

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

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

return;

}

DiskFileItemFactory factory = new DiskFileItemFactory();

// maximum size that will be stored in memory

factory.setSizeThreshold(maxMemSize);

// Location to save data that is larger than maxMemSize.

factory.setRepository(new File("D:\\demo"));

// Create a new file upload handler

ServletFileUpload upload = new ServletFileUpload(factory);

// maximum file size to be uploaded.

upload.setSizeMax( maxFileSize );

try{

// Parse the request to get file items.

List fileItems = upload.parseRequest(request);

// Process the uploaded file items

Iterator i = fileItems.iterator();

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet upload</title>");

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

out.println("<body>");

while ( i.hasNext () )

{

FileItem fi = (FileItem)i.next();

if ( !fi.isFormField () )

{

// Get the uploaded file parameters

String fieldName = fi.getFieldName();

String fileName = fi.getName();

String contentType = fi.getContentType();

boolean isInMemory = fi.isInMemory();

long sizeInBytes = fi.getSize();

// Write the file

if( fileName.lastIndexOf("\\") >= 0 ){

file = new File( filePath +

fileName.substring( fileName.lastIndexOf("\\"))) ;

}else{

file = new File( filePath +

fileName.substring(fileName.lastIndexOf("\\")+1)) ;

}

fi.write( file ) ;

out.println("Uploaded Filename: " + fileName + "<br>");

}

}

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

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

}catch(Exception ex) {

System.out.println(ex);

}

}

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, java.io.IOException {

throw new ServletException("GET method used with " +

getClass( ).getName( )+": POST method required.");

}

}

web.xml:

<web-app>

<context-param>

<description>Location to store uploaded file</description>

<param-name>file-upload</param-name>

<param-value>

C:\Documents and Settings\JAVAPROJECTS\Desktop\urlrewritting

</param-value>

</context-param>

<servlet>

<servlet-name>UploadServlet</servlet-name>

<servlet-class>UploadServlet</servlet-class>

</servlet>

<servlet-mapping>

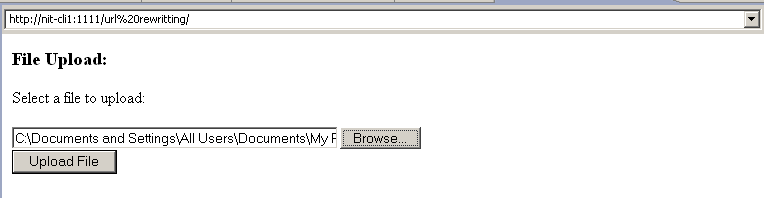
<servlet-name>UploadServlet</servlet-name>

<url-pattern>/UploadServlet</url-pattern>

</servlet-mapping>

</web-app>

Output:



Uploaded Filename: C:\Documents and Settings\All Users\Documents\My Pictures\Sample Pictures\welcome1.txt

1. Write a servlet application using Connection Pooling to retrieve the data from the database.

**TestServlet.java:**

import java.io.IOException;

import java.sql.Connection;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import javax.naming.Context;

import javax.naming.InitialContext;

import javax.naming.NamingException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.sql.DataSource;

public class TestServlet extends HttpServlet {

private DataSource dataSource;

private Connection connection;

private Statement statement;

public void init() throws ServletException {

try {

// Get DataSource

Context initContext = new InitialContext();

Context x = (Context)initContext.lookup("java:/comp/env");

dataSource = (DataSource)x.lookup("jdbc/testdb");

} catch (NamingException e) {

e.printStackTrace();

}

}

public void doGet(HttpServletRequest req, HttpServletResponse resp)

throws ServletException, IOException {

ResultSet rs = null;

try {

// Get Connection and Statement

connection = dataSource.getConnection();

statement = connection.createStatement();

String query = "select \* from emptable";

rs = statement.executeQuery(query);

while (rs.next()) {

System.out.println(rs.getInt(1) + rs.getString(2) + rs.getFloat(3));

}

} catch (SQLException e) {

e.printStackTrace();

}

finally {

try {

if(null!=rs)rs.close();}

catch (SQLException e)

{e.printStackTrace();}

try {

if(null!=statement)statement.close();}

catch (SQLException e)

{e.printStackTrace();}

try {

if(null!=connection)connection.close();}

catch (SQLException e)

{e.printStackTrace();}

}

}

}

**web.xml:**

<?xml version="1.0" encoding="UTF-8"?>

<web-app>

<display-name>TomcatConnectionPooling</display-name>

<servlet>

<servlet-name>TestServlet</servlet-name>

<servlet-class>TestServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>TestServlet</servlet-name>

<url-pattern>/test</url-pattern>

</servlet-mapping>

</web-app>

**context.xml:(place the resource tag in context.xml file)**

<Resource name="jdbc/testdb"

auth="Container"

type="javax.sql.DataSource"

username="system"

password="manager"

driverClassName="oracle.jdbc.driver.OracleDriver"

url="jdbc:oracle:thin:@localhost:1521:xe"

maxActive="10"

maxIdle="4" />

output:

100 Naresh 29000

101 Nacre 28000

1. Write a servlet application to maintain the session of a user using hidden formfields.

**index.html:**

<html><body bgcolor="cyan">

<form action="go" method="get">

Name:<input type="text" name="uname"/><br/>

<input type="submit" value="go"/>

</form>

</body></html>

**FirstServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet1 extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

//creating form that have invisible textfield

out.print("<form action='welcome'>");

out.print("<input type='hidden' name='uname' value='"+n+"'>");

out.print("<input type='submit' value='go'>");

out.print("</form>");

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**SecondServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//Getting the value from the hidden field

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

out.print("Hello "+n);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>Servlet1</servlet-name>

<servlet-class>FirstServlet1</servlet-class>

</servlet>

<servlet>

<servlet-name>SecondServlet</servlet-name>

<servlet-class>SecondServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Servlet1</servlet-name>

<url-pattern>/go</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>SecondServlet</servlet-name>

<url-pattern>/welcome</url-pattern>

</servlet-mapping>

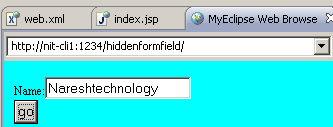
<welcome-file-list>

<welcome-file>index.html</welcome-file>

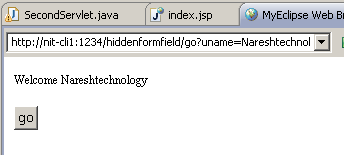
</welcome-file-list>

</web-app>

Output:



Output:



1. Write a servlet application to create a cookies and retrieving the cookie data along with java script.

**index.html:**

<script language=*"javascript"*>

**function** **validateForm**()

{

**var** x=document.myForm.email.value;

**var** atpos=x.indexOf("@");

**var** dotpos=x.lastIndexOf(".com");

**if** (atpos<1 || dotpos<atpos+2 || dotpos+2>=x.length)

{

alert("Not a valid e-mail address");

**return** **false**;

}

}

</script>

<form name=*"myForm"* action=*"./servlet1"* onsubmit=*"return validateForm();"* method=*"post"*>

Email: <input type=*"text"* name=*"email"*>

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

</form>

**FirstServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

Cookie ck=new Cookie("uname",n);//creating cookie object

response.addCookie(ck);//adding cookie in the response

//creating submit button

out.println("<html><body bgcocor=cyan>");

out.print("<form action='servlet2' method='post'>");

out.print("<input type='submit' value='go'>");

out.print("</form>");

out.println("</body></html>");

out.close();

}catch(Exception e){e.printStackTrace();}

}

}

**SecondServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doPost(HttpServletRequest request, HttpServletResponse response){

try{response.setContentType("text/html");

PrintWriter out = response.getWriter();

Cookie ck[]=request.getCookies();

out.print("Hello "+ck[0].getValue());

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>Servlet1</servlet-name>

<servlet-class>FirstServlet</servlet-class>

</servlet>

<servlet>

<servlet-name>SecondServlet</servlet-name>

<servlet-class>SecondServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Servlet1</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>SecondServlet</servlet-name>

<url-pattern>/servlet2</url-pattern>

</servlet-mapping>

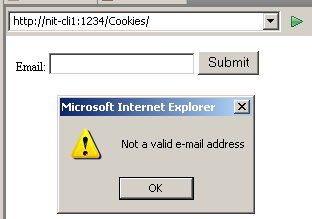
<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

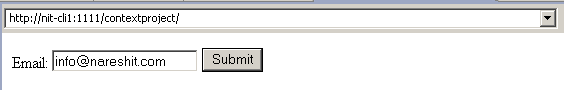
</web-app>

**Input:**

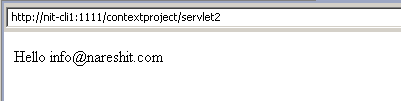
****

**Output:**

**1stservlet:**

****

**Click go send to second servlet**

****

1. Write a servlet application to maintain the session of the user using HttpSession class.

**index.jsp:**

<html><body bgcolor="pink">

<form action="servlet1">

Name:<input type="text" name="userName"/><br/>

<input type="submit" value="go"/>

</form>

</body></html>

**FirstServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

HttpSession session=request.getSession();

session.setAttribute("uname",n);

//out.print("<a href='servlet2'>visit</a>");

RequestDispatcher rd=req.getRequestDispatcher("servlet2");

rd.forward(req,res);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**SecondServlet.java:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{response.setContentType("text/html");

PrintWriter out = response.getWriter();

HttpSession session=request.getSession(false);

String n=(String)session.getAttribute("uname");

out.print("Hello "+n);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**webxml:**

<web-app>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>FirstServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>SecondServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s2</servlet-name>

<url-pattern>/servlet2</url-pattern>

</servlet-mapping>

</web-app>

**Output:** Hello:Nit

1. Write a servlet application to maintain the session of the user using HttpSession class

Index.html:

<form action=*"servlet1"*>

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

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

</form>

FirstServlet.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

//appending the username in the query string

out.print("<a href='servlet2?uname="+n+"'>visit</a>");

out.close();

}catch(Exception e){System.out.println(e);}

}

}

Secondservlet.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//getting value from the query string

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

out.print("Hello "+n);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

web.xml:

<web-app>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>FirstServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>SecondServlet</servlet-class>

</servlet>

<servlet-mapping>

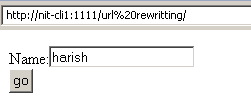
<servlet-name>s2</servlet-name>

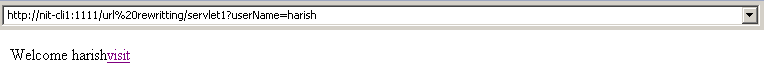
<url-pattern>/servlet2</url-pattern>

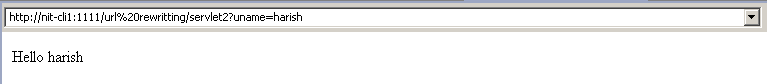
</servlet-mapping>

</web-app>

Output:







1. Counting the number of users by using HttpSessionListener interface. This listener class executes when HttpSession event is generated

**index.html:**

<form action="servlet1">

Name:<input type="text" name="username"><br>

Password:<input type="password" name="userpass"><br>

<input type="submit" value="login"/>

</form>

**CountUserListener.java:**

import javax.servlet.ServletContext;

import javax.servlet.http.HttpSessionEvent;

import javax.servlet.http.HttpSessionListener;

public class CountUserListener implements HttpSessionListener{

ServletContext ctx=null;

int total;

int current;

public void sessionCreated(HttpSessionEvent e) {

total++;

current++;

ctx=e.getSession().getServletContext();

ctx.setAttribute("totalusers", total);

ctx.setAttribute("currentusers", current);

}

public void sessionDestroyed(HttpSessionEvent e) {

current--;

ctx.setAttribute("currentusers",current);

}

}

**First.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletContext;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

public class First extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

out.print("Welcome "+n);

HttpSession session=request.getSession();

session.setAttribute("uname",n);

ServletContext ctx=getServletContext();

int t=(Integer)ctx.getAttribute("totalusers");

int c=(Integer)ctx.getAttribute("currentusers");

out.print("<br>total users= "+t);

out.print("<br>current users= "+c);

out.print("<br><a href='logout'>logout</a>");

out.close();

}

}

**LogoutServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

public class LogoutServlet extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

HttpSession session=request.getSession(false);

session.invalidate();

out.print("You are successfully logged out");

out.close();

}

}

**web.xml:**

<web-app>

<listener>

<listener-class>CountUserListener</listener-class>

</listener>

<servlet>

<servlet-name>First</servlet-name>

<servlet-class>First</servlet-class>

</servlet>

<servlet>

<servlet-name>LogoutServlet</servlet-name>

<servlet-class>LogoutServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>First</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet-mapping>

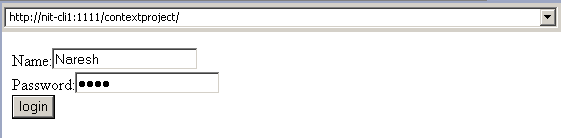
<servlet-name>LogoutServlet</servlet-name>

<url-pattern>/logout</url-pattern>

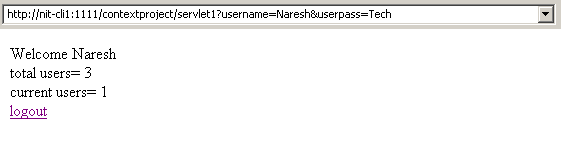
</servlet-mapping>

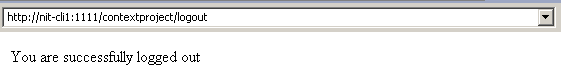
</web-app>

Output:



Output:





1. Write a servlet application to create the database table using ServletContextListener interface.(Here table is created at the time of deploying the application in the server).

**MyListener.java:**

import javax.servlet.\*;

import java.sql.\*;

public class MyListener implements ServletContextListener{

public void contextInitialized(ServletContextEvent arg0) {

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

String query="create table emp32(id number(10),name varchar2(40))";

PreparedStatement ps=con.prepareStatement(query);

ps.executeUpdate();

System.out.println(query);

}catch(Exception e){e.printStackTrace();}

}

public void contextDestroyed(ServletContextEvent arg0) {

System.out.println("project undeployed");

}

}

**web.xml:**

<web-app>

<listener>

<listener-class>MyListener</listener-class>

</listener>

</web-app>

Output:

table is created in the database

1. write a servlet program to retrieve the date from the database at the time of deployment using ServletContextListener Interface.

Note : By using this approach the performance of the application is improved .

**index.html:**

<a href="servlet1">first servlet</a>|

<a href="servlet2">second servlet</a>

**MyListener.java:**

import javax.servlet.ServletContext;

import javax.servlet.ServletContextEvent;

import javax.servlet.ServletContextListener;

import java.sql.\*;

import java.util.ArrayList;

public class MyListener implements ServletContextListener{

public void contextInitialized(ServletContextEvent e) {

ArrayList list=new ArrayList();

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

PreparedStatement ps=con.prepareStatement("select \* from csuser");

ResultSet rs=ps.executeQuery();

while(rs.next()){

User u=new User();

u.setId(rs.getInt(1));

u.setName(rs.getString(2));

u.setPassword(rs.getString(3));

list.add(u);

}

con.close();

}catch(Exception ex){System.out.print(ex);}

ServletContext context=e.getServletContext();

context.setAttribute("data",list);

}

public void contextDestroyed(ServletContextEvent arg0) {

System.out.println("project undeployed...");

}

}

**MyServlet1.java:**

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.util.Iterator;

import java.util.List;

import javax.servlet.ServletContext;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class MyServlet1 extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

long before=System.currentTimeMillis();

ServletContext context=getServletContext();

List list=(List)context.getAttribute("data");

Iterator itr=list.iterator();

while(itr.hasNext()){

User u=(User)itr.next();

out.print("<br>"+u.getId()+" "+u.getName()+" "+u.getPassword());

}

long after=System.currentTimeMillis();

out.print("<br>total time :"+(after-before));

out.close();

}

}

MyServlet2.java:

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.util.Iterator;

import java.util.List;

import javax.servlet.ServletContext;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class MyServlet2 extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

long before=System.currentTimeMillis();

try

{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

PreparedStatement ps=con.prepareStatement("select \* from csuser");

ResultSet rs=ps.executeQuery();

while(rs.next()){

int x=rs.getInt(1);

String name=rs.getString(2);

String pass=rs.getString(3);

out.print("<br>"+x+" "+name+" "+pass);

}

long after=System.currentTimeMillis();

out.print("<br>total time :"+(after-before)+" "+"milli seconds");

out.close();

}

catch(Exception e)

{

e.printStackTrace();

}

}

}

**User.java:**

public class User {

private int id;

private String name,password;

public int getId() {

return id;}

public void setId(int id) {

this.id = id;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public String getPassword() {

return password;

}

public void setPassword(String password) {

this.password = password;

}

}

**web.xml:**

<web-app>

<listener>

<listener-class>MyListener</listener-class>

</listener>

<servlet>

<servlet-name>MyServlet1</servlet-name>

<servlet-class>MyServlet1</servlet-class></servlet>

<servlet>

<servlet-name>MyServlet2</servlet-name>

<servlet-class>MyServlet2</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>MyServlet1</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<servlet-mapping>

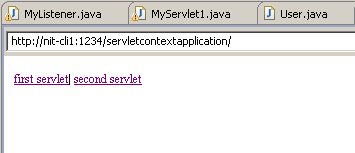
<servlet-name>MyServlet2</servlet-name>

<url-pattern>/servlet2</url-pattern>

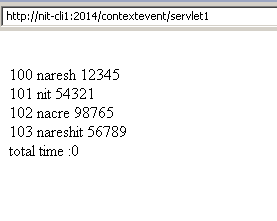
</servlet-mapping>

</web-app>

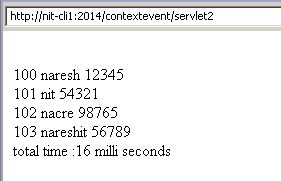
Input:



output@1:



outppput@2:



1. write a basic servlet application using the combination of Filter and servlet

**index.html:**

<a href="servlet1">click here</a>

**MyFilter.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.\*;

public class MyFilter implements Filter{

public void init(FilterConfig arg0) throws ServletException {}

public void doFilter(ServletRequest req, ServletResponse resp,

FilterChain chain) throws IOException, ServletException {

PrintWriter out=resp.getWriter();

out.print("filter is invoked before");

chain.doFilter(req, resp);//sends request to next resource

out.print("filter is invoked after");

}

public void destroy() {}

}

HelloServlet.java:

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class HelloServlet extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.print("<br>welcome to servlet<br>");

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>HelloServlet</servlet-name>

<servlet-class>HelloServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>HelloServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<filter>

<filter-name>f1</filter-name>

<filter-class>MyFilter</filter-class>

</filter>

<filter-mapping>

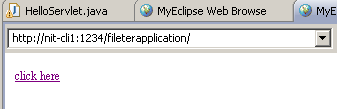
<filter-name>f1</filter-name>

<url-pattern>/servlet1</url-pattern>

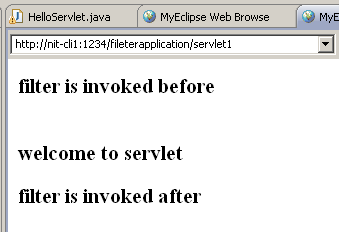
</filter-mapping>

</web-app>

Input:



Output:



1. Write a Servlet application to verify the user and retrieve the products data from the database.

**index.html:**

<html>

<head>

<script type="text/javascript">

function validation()

{

var a = document.form.ename.value;

var b = document.form.password.value;

if(a=="" && b=="")

{

alert("Please Enter Your Name and password");

document.form.ename.focus();

return false;

}

}

</script>

</head>

<body bgcolor="cyan">

<form action="./action" name="form" method="get" onsubmit="return validation()">

<h2>Enter UserName and Password</h2>

Enter User name:<input type="text" name="ename"/><br><br>

Enter Password:<input type="text" name="password"/><br><br>

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

</form>

</body>

</html>

**Filter1.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.Filter;

import javax.servlet.FilterChain;

import javax.servlet.FilterConfig;

import javax.servlet.ServletException;

import javax.servlet.ServletRequest;

import javax.servlet.ServletResponse;

public class Filter1 implements Filter {

public void init(FilterConfig f)

{ }

public Filter1() {

super();

}

public void destroy() {

}public void doFilter(ServletRequest request,ServletResponse response,FilterChain fc)

throws ServletException, IOException{

try

{

int x=request.getRemotePort();

System.out.println(x);

fc.doFilter(request, response);

}

catch(Exception e){e.printStackTrace();}

}

}

**DataBaseConnection.java:**

package com.nit;

import java.sql.Connection;

import java.sql.DriverManager;

public class DataBaseConnection

{

static Connection con=null;

public static Connection getConnection()

{try

{Class.forName("oracle.jdbc.driver.OracleDriver");

con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

}

catch(Exception e)

{e.printStackTrace();}

return con;

}

}

**Servlet1.java**

**import** java.io.IOException;

**import** java.sql.Connection;

**import** java.sql.ResultSet;

**import** java.sql.Statement;

**import** javax.servlet.RequestDispatcher;

**import** javax.servlet.ServletException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** com.nit.DataBaseConnection;

**public** **class** Servlet1 **extends** HttpServlet {

Connection con=**null**;

Statement s=**null**;

**public** **void** destroy() {

**super**.destroy();

}

**public** **void** doGet(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html");

**try**

{

DataBaseConnection d=**new** DataBaseConnection();

con=d.*getConnection*();

s=con.createStatement();

String user=request.getParameter("ename");

String pass=request.getParameter("password");

ResultSet rs=s.executeQuery("select \* from reg where username='"+user+"' and password='"+pass+"'");

//System.out.println("rs"+rs.next());

**if**(rs.next())

{

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

RequestDispatcher rd=request.getRequestDispatcher("get.jsp");

rd.forward(request,response);

}

}

**catch**(Exception e){e.printStackTrace();}

}

**public** **void** init() **throws** ServletException {

}

}

**get.jsp:**

<%@page import="java.sql.Connection"%>

<%@page import="java.sql.PreparedStatement"%>

<%@page import="java.sql.ResultSet"%>

<%@page import="java.sql.ResultSetMetaData"%>

<%@page import="com.nit.DataBaseConnection" %>

<body bgcolor="orange">

<center>

<h3>Products List</h3>

<%

try

{

Connection con=DataBaseConnection.getConnection();

PreparedStatement ps=con.prepareStatement("select \* from products");

ResultSet rs=ps.executeQuery();

ResultSetMetaData rsmd=rs.getMetaData();

int x=rsmd.getColumnCount();

%>

<table border="2" cellpadding="4" cellspacing="2" bordercolor="blue"><tr>

<%

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

{

%>

<td><%=rsmd.getColumnName(i)%></td>

<%} %>

</tr>

<%

while(rs.next())

{ %>

<tr>

<td><%=rs.getInt(1)%></td>

<td><%=rs.getString(2)%></td>

<td><%=rs.getInt(3)%></td>

</tr>

<%}%>

</table>

<%}

catch(Exception e)

{

e.printStackTrace();

}%>

</center></body>

**web.xml:**

<web-app >

<filter>

<filter-name>one</filter-name>

<filter-class>Filter1</filter-class>

</filter>

<servlet>

<servlet-name>two</servlet-name>

<servlet-class>Servlet1</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>two</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

<filter-mapping>

<filter-name>one</filter-name>

<url-pattern>/action</url-pattern>

</filter-mapping>

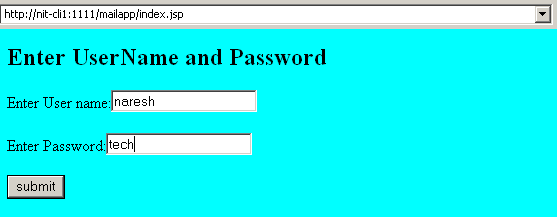
<welcome-file-list>

<welcome-file>index.html</welcome-file>

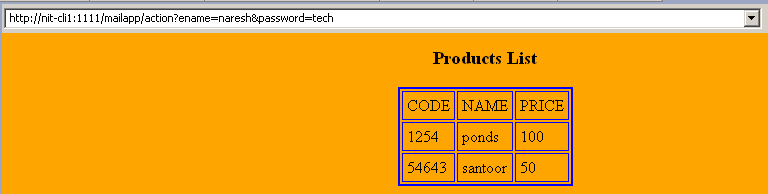
</welcome-file-list>

</web-app>

Input:



Output:



1. Write a servlet application using FilterConfig object to get the init parameter values.

**index.html:**

<a href="servlet1">click here</a>

**MyFilter.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.\*;

public class MyFilter implements Filter{

FilterConfig config;

public void init(FilterConfig config) throws ServletException {

this.config=config;

}

public void doFilter(ServletRequest req, ServletResponse resp,

FilterChain chain) throws IOException, ServletException {

PrintWriter out=resp.getWriter();

String s=config.getInitParameter("construction");

if(s.equals("yes")){

out.print("This page is under construction");

}

else{

chain.doFilter(req, resp);//sends request to next resource

}

}

public void destroy() {}

**HelloServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class HelloServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.print("<br>welcome to servlet<br>");

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>HelloServlet</servlet-name>

<servlet-class>HelloServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>HelloServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<filter>

<filter-name>f1</filter-name>

<filter-class>MyFilter</filter-class>

<init-param>

<param-name>construction</param-name>

<param-value>no</param-value>

</init-param>

</filter>

<filter-mapping>

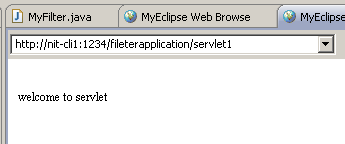
<filter-name>f1</filter-name>

<url-pattern>/servlet1</url-pattern>

</filter-mapping>

</web-app>

Output:



1. Write a Filter application for password verification.

**index.html:**

<form action="servlet1">

Name:<input type="text" name="name"/><br/>

Password:<input type="password" name="password"/><br/>

<input type="submit" value="login">

</form>

**MyFilter.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.\*;

public class MyFilter implements Filter{

public void init(FilterConfig arg0) throws ServletException {}

public void doFilter(ServletRequest req, ServletResponse resp,

FilterChain chain) throws IOException, ServletException {

PrintWriter out=resp.getWriter();

String password=req.getParameter("password");

if(password.equals("admin")){

chain.doFilter(req, resp);//sends request to next resource

}

else{

out.print("username or password error!");

RequestDispatcher rd=req.getRequestDispatcher("index.html");

rd.include(req, resp);

}

}

public void destroy() {}

}

**AdminServlet.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class AdminServlet extends HttpServlet {

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.print("welcome to ADMIN");

out.close();

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>AdminServlet</servlet-name>

<servlet-class>AdminServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>AdminServlet</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

<filter>

<filter-name>f1</filter-name>

<filter-class>MyFilter</filter-class>

</filter>

<filter-mapping>

<filter-name>f1</filter-name>

<url-pattern>/servlet1</url-pattern>

</filter-mapping>

</web-app>

**Output**: welcome to ADMIN

1. Write a servlet application to insert the data into the database and performing the validations using javascript

form.html:

<script type='text/javascript'>

function formValidator(){

// Make quick references to our fields

var firstname = document.getElementById('firstname');

var addr = document.getElementById('addr');

var zip = document.getElementById('zip');

var state = document.getElementById('state');

var username = document.getElementById('username');

var email = document.getElementById('email');

// Check each input in the order that it appears in the form!

if(isAlphabet(firstname, "Please enter only letters for your name")){

if(isAlphanumeric(addr, "Numbers and Letters Only for Address")){

if(isNumeric(zip, "Please enter a valid zip code")){

if(madeSelection(state, "Please Choose a State")){

if(lengthRestriction(username, 6, 8)){

if(emailValidator(email, "Please enter a valid email address")){

return true;

}

}

}

}

}

}

return false;

}

function notEmpty(elem, helperMsg){

if(elem.value.length == 0){

alert(helperMsg);

elem.focus(); // set the focus to this input

return false;

}

return true;

}

function isNumeric(elem, helperMsg){

var numericExpression = /^[0-9]+$/;

if(elem.value.match(numericExpression)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

function isAlphabet(elem, helperMsg){

var alphaExp = /^[a-zA-Z]+$/;

if(elem.value.match(alphaExp)){

return true;

}

else

{

alert(helperMsg);

elem.focus();

return false;

}

}

function isAlphanumeric(elem, helperMsg){

var alphaExp = /^[0-9a-zA-Z]+$/;

if(elem.value.match(alphaExp)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

function lengthRestriction(elem, min, max){

var uInput = elem.value;

if(uInput.length >= min && uInput.length <= max){

return true;

}else{

alert("Please enter between " +min+ " and " +max+ " characters");

elem.focus();

return false;

}

}

function madeSelection(elem, helperMsg){

if(elem.value == "Please Choose"){

alert(helperMsg);

elem.focus();

return false;

}else{

return true;

}

}

function emailValidator(elem, helperMsg){

var emailExp = /^[\w\-\.\+]+\@[a-zA-Z0-9\.\-]+\.[a-zA-z0-9]{2,4}$/;

if(elem.value.match(emailExp)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

</script>

<form action="./servlet" onsubmit='return formValidator()' method="Post">

First Name: <input type='text' id='firstname' name="firstname"/><br />

Address: <input type='text' id='addr' name="addr"/><br />

Zip Code: <input type='text' id='zip' name="zip"/><br />

State: <select id='state' name="state">

<option>Please Choose</option>

<option>Ap</option>

<option>ka</option>

<option>mp</option>

<option>up</option>

</select><br />

Username(6-8 characters): <input type='text' id='username' name="username"/><br />

Email: <input type='text' id='email' name="email"/><br />

<input type='submit' value='Check Form' />

</form>

**GetConnection.java:**

import java.sql.\*;

public class GetConnection

{

public static Connection getConnection() throws ClassNotFoundException, SQLException

{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

return con;

}

}

Servlet7.java:

import java.io.IOException;

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 javax.servlet.ServletConfig;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

public class Servlet7 extends HttpServlet {

Connection con=null;

boolean a;

public void init(ServletConfig config)

{

try {

con=GetConnection.getConnection();

System.out.println(con);

} catch (ClassNotFoundException e) {

// TODO Auto-generated catch block

e.printStackTrace();

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

public void doPost(HttpServletRequest req,HttpServletResponse res) throws ServletException,IOException

{

try

{

String id=req.getParameter("firstname");

System.out.println(id);

String add=req.getParameter("addr");

String zip=req.getParameter("zip");

String state=req.getParameter("state");

String username=req.getParameter("username");

String email=req.getParameter("email");

/\*if(con!=null)

{

System.out.println("connection is created");

System.out.println("connection Object Address:"+con);

Statement s=con.createStatement();

ResultSet rs= s.executeQuery("select \* from tab where tname='EMPTABLE'");

if(rs.next()==false)

{

a=s.execute("create table emptable("+"eid number(8) not NULL,"+"ename varchar(15),"+"salary number(15,4))");

con.commit();

}

else

{

System.out.println(a);

if(a==false)

{\*/

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

ps.setString(1,id);

ps.setString(2,add);

ps.setString(3,zip);

ps.setString(4,state);

ps.setString(5,username);

ps.setString(6,email);

int x=ps.executeUpdate();

con.commit();

}

catch(Exception e)

{e.printStackTrace();}

}

}

web.xml:

<?xml version="1.0" encoding="UTF-8"?>

<web-app version="2.5"

xmlns="http://java.sun.com/xml/ns/javaee"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://java.sun.com/xml/ns/javaee

http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd">

<servlet>

<servlet-name>d</servlet-name>

<servlet-class>Servlet7</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>d</servlet-name>

<url-pattern>/servlet</url-pattern>

</servlet-mapping>

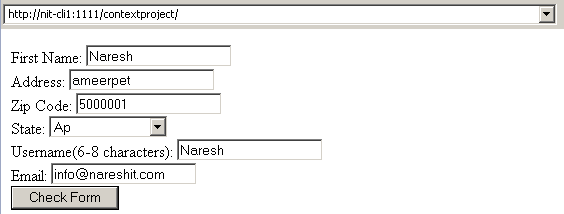
<welcome-file-list>

<welcome-file>Form.html</welcome-file>

</welcome-file-list>

</web-app>

Output:



oracle.jdbc.driver.T4CConnection@e99681

Naresh

Database tables:



1. Write a mvc based servlet application to display user details in browser.

**Index.jsp:**

<html>

<body>

This is my JSP page. <br>

</body>

<form action=*"./login"* method=*"get"*>

username :<input type=*"text"* name=*"username"*><br>

password:<input type=*"text"* name=*"password"*><br>

<input type=*"submit"* value=*"send"*>

</form>

</html>

LoginServlet.java:

import java.io.IOException;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import com.nit.LoginBean;

public class LoginServlet extends HttpServlet {

@Override

public void doPost(HttpServletRequest req, HttpServletResponse resp)throws ServletException, IOException {

String uname=req.getParameter("username");

String password=req.getParameter("password");

PersonDao pd=new PersonDao();

LoginBean pd1=(LoginBean) pd.getPerson(uname,password);

req.setAttribute("persondetails",pd1 );

if(pd1!=null)

{

RequestDispatcher rd=req.getRequestDispatcher("success.jsp");

rd.forward(req, resp);

}

// resp.sendRedirect("success.jsp");

}

public void doGet(HttpServletRequest req, HttpServletResponse resp)

throws ServletException, IOException {

doPost(req,resp);

}

}

**LoginBean.java:**

**package** com.nit;

**public** **class** LoginBean {

String name,password;

String addr,mail,state;

**public** String getAddr() {

**return** addr;

}

**public** **void** setAddr(String addr) {

**this**.addr = addr;

}

**public** String getMail() {

**return** mail;

}

**public** **void** setMail(String mail) {

**this**.mail = mail;

}

**public** String getState() {

**return** state;

}

**public** **void** setState(String state) {

**this**.state = state;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getPassword() {

**return** password;

}

**public** **void** setPassword(String password) {

**this**.password = password;

}}

**GetConnection.java:**

**import** java.sql.\*;

**public** **class** GetConnection

{

**public** **static** Connection getConnection() **throws** ClassNotFoundException, SQLException

{

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

**return** con;

}

}

**PersonDao.java:**

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.util.ArrayList;

import java.util.Collection;

import com.nit.LoginBean;

public class PersonDao {

Connection con=null;

public LoginBean getPerson(String un,String pass)

{

LoginBean l = null;

int x;

try {

con=GetConnection.getConnection();

PreparedStatement ps=con.prepareStatement("select \* from login1 where username=? and password=?");

ps.setString(1,un);

ps.setString(2,pass);

ResultSet rs=ps.executeQuery();

con.commit();

//ArrayList al=new ArrayList();

while(rs.next())

{

l=new LoginBean();

l.setName(rs.getString(1));

l.setPassword(rs.getString(2));

l.setAddr(rs.getString(3));

l.setState(rs.getString(4));

l.setMail(rs.getString(5));

}

}catch (Exception e) {

}

return l;

}

}

**Web.xml:**

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app >

<servlet>

<servlet-name>ll</servlet-name>

<servlet-class>LoginServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>ll</servlet-name>

<url-pattern>/login</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**Success.jsp:**

<%@page import=*"com.nit.LoginBean"* %>

<body bgcolor=*"yellow"*>

<%LoginBean p=(LoginBean)request.getAttribute("persondetails");%><br/>

username:<%=p.getName() %><br>

password:<%=p.getPassword() %><br>

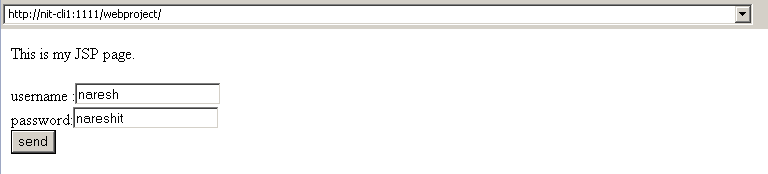
Adder:<%=p.getAddr() %><br/>

state:<%=p.getState() %><br>

mail:<%=p.getMail() %><br>

</body>

Input.jsp:

****

**Output:**

****

1. Write a servlet application using mvc desing pattern with validation.

**Form.html:**

<script type=*'text/javascript'*>

function formValidator(){

// Make quick references to our fields

var firstname = document.getElementById('firstname');

var addr = document.getElementById('addr');

var zip = document.getElementById('zip');

var state = document.getElementById('state');

var username = document.getElementById('username');

var email = document.getElementById('email');

// Check each input in the order that it appears in the form!

if(isAlphabet(firstname, "Please enter only letters for your name")){

if(isAlphanumeric(addr, "Numbers and Letters Only for Address")){

if(isNumeric(zip, "Please enter a valid zip code")){

if(madeSelection(state, "Please Choose a State")){

if(lengthRestriction(username, 6, 8)){

if(emailValidator(email, "Please enter a valid email address")){

return true;

}

}

}

}

}

}

return false;

}

function notEmpty(elem, helperMsg){

if(elem.value.length == 0){

alert(helperMsg);

elem.focus(); // set the focus to this input

return false;

}

return true;

}

function isNumeric(elem, helperMsg){

var numericExpression = /^[0-9]+$/;

if(elem.value.match(numericExpression)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

function isAlphabet(elem, helperMsg){

var alphaExp = /^[a-zA-Z]+$/;

if(elem.value.match(alphaExp)){

return true;

}

else

{

alert(helperMsg);

elem.focus();

return false;

}

}

function isAlphanumeric(elem, helperMsg){

var alphaExp = /^[0-9a-zA-Z]+$/;

if(elem.value.match(alphaExp)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

function lengthRestriction(elem, min, max){

var uInput = elem.value;

if(uInput.length >= min && uInput.length <= max){

return true;

}else{

alert("Please enter between " +min+ " and " +max+ " characters");

elem.focus();

return false;

}

}

function madeSelection(elem, helperMsg){

if(elem.value == "Please Choose"){

alert(helperMsg);

elem.focus();

return false;

}else{

return true;

}

}

function emailValidator(elem, helperMsg){

var emailExp = /^[\w\-\.\+]+\@[a-zA-Z0-9\.\-]+\.[a-zA-z0-9]{2,4}$/;

if(elem.value.match(emailExp)){

return true;

}else{

alert(helperMsg);

elem.focus();

return false;

}

}

</script>

<form action=*"./servlet"* onsubmit=*'return formValidator()'* method=*"Post"*>

First Name: <input type=*'text'* id=*'firstname'* name=*"firstname"*/><br />

Address: <input type=*'text'* id=*'addr'* name=*"addr"*/><br />

Zip Code: <input type=*'text'* id=*'zip'* name=*"zip"*/><br />

State: <select id=*'state'* name=*"state"*>

<option>Please Choose</option>

<option>Ap</option>

<option>ka</option>

<option>mp</option>

<option>up</option>

</select><br />

Username(6-8 characters): <input type=*'text'* id=*'username'* name=*"username"*/><br />

Email: <input type=*'text'* id=*'email'* name=*"email"*/><br />

<input type=*'submit'* value=*'Check Form'* />

</form>

**ControlerServlet.java**

import java.io.IOException;

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 javax.servlet.RequestDispatcher;

import javax.servlet.ServletConfig;

import javax.servlet.ServletException;

import javax.servlet.http.\*;

import com.nit.Person;

public class ControlerServlet extends HttpServlet {

Connection con=null;

boolean a;

public void init(ServletConfig config)

{

}

public void doPost(HttpServletRequest req,HttpServletResponse res) throws ServletException,IOException

{

try

{

String id=req.getParameter("firstname");

System.out.println(id);

String add=req.getParameter("addr");

String zip=req.getParameter("zip");

String state=req.getParameter("state");

String username=req.getParameter("username");

String email=req.getParameter("email");

Person p=new Person();

p.setFirstname(id);

p.setAddr(add);

p.setZip(zip);

p.setState(state);

p.setUsername(username);

p.setEmail(email);

PersonDao pd=new PersonDao();

boolean status=pd.getPerson(p);

req.setAttribute("person", p);

if(status)

{

RequestDispatcher rd=req.getRequestDispatcher("success.jsp");

rd.forward(req, res);

}

else {

RequestDispatcher rd=req.getRequestDispatcher("failure.jsp");

rd.forward(req, res);

}

}

catch (Exception e) {

// TODO: handle exception

}

}

}

**Person.java**

**package** com.nit;

**public** **class** Person {

**private** String firstname,addr,zip,state ,username,email;

**public** String getFirstname() {

**return** firstname;

}

**public** **void** setFirstname(String firstname) {

**this**.firstname = firstname;

}

**public** String getAddr() {

**return** addr;

}

**public** **void** setAddr(String addr) {

**this**.addr = addr;

}

**public** String getZip() {

**return** zip;

}

**public** **void** setZip(String zip) {

**this**.zip = zip;

}

**public** String getState() {

**return** state;

}

**public** **void** setState(String state) {

**this**.state = state;

}

**public** String getUsername() {

**return** username;

}

**public** **void** setUsername(String username) {

**this**.username = username;

}

**public** String getEmail() {

**return** email;

}

**public** **void** setEmail(String email) {

**this**.email = email;

}

}

**GetConnection.java:**

**import** java.sql.\*;

**public** **class** GetConnection

{

**public** **static** Connection getConnection() **throws** ClassNotFoundException, SQLException

{

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

**return** con;

}

}

**PersonDao.java:**

**import** java.sql.Connection;

**import** java.sql.PreparedStatement;

**import** java.sql.SQLException;

**import** com.nit.Person;

**public** **class** PersonDao {

Connection con=**null**;

**public** **boolean** getPerson(Person p)

{

**int** x;

**try** {

con=GetConnection.*getConnection*();

System.*out*.println(con);

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

ps.setString(1,p.getFirstname());

ps.setString(2,p.getAddr());

ps.setString(3,p.getZip());

ps.setString(4,p.getState());

ps.setString(5,p.getUsername());

ps.setString(6,p.getEmail());

x=ps.executeUpdate();

con.commit();

**return** **true**;

}

**catch** (ClassNotFoundException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

**catch**(Exception e)

{e.printStackTrace();}

**return** **false**;

}

}

Web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app >

<servlet>

<servlet-name>d</servlet-name>

<servlet-class> ControlerServlet </servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>d</servlet-name>

<url-pattern>/servlet</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>Form.html</welcome-file>

</welcome-file-list>

</web-app>

**Success.jsp:**

<%@page import=*"com.nit.Person"* %>

<body bgcolor=*"yellow"*>

<%

Person p=(Person)request.getAttribute("person");

out.print("welcome to"+p.getFirstname());

%>

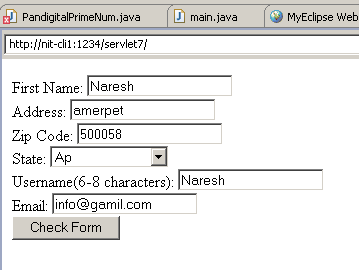
</body>

**Failure.jsp:**

<h1> sory try again</h1>

<%@include file=”Form.html”%>

**Input:**

****

**Output:**

****

1. write a servlet application to display the image on the browser .

**Index.jsp:**

<a herf=”servlet1”>click on photo</a>

**DisplayImage.java:**

package com.nit;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class DisplayImage extends HttpServlet {

public void doGet(HttpServletRequest request,HttpServletResponse response) throws IOException

{

response.setContentType("image/jpeg");

ServletOutputStream out;

out = response.getOutputStream();

FileInputStream fin = new FileInputStream("C:\\servletexample\\imageservlet\\src\\gggg.JPG");

BufferedInputStream bin = new BufferedInputStream(fin);

BufferedOutputStream bout = new BufferedOutputStream(out);

int ch =0; ;

while((ch=bin.read())!=-1)

{

bout.write(ch);

}

bin.close();

fin.close();

bout.close();

out.close();

}

}

**Web.xml**:

<web-app>

<servlet>

<servlet-name>DisplayImage</servlet-name>

<servlet-class>com.nit.DisplayImage</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>DisplayImage</servlet-name>

<url-pattern>/servlet1</url-pattern>

</servlet-mapping>

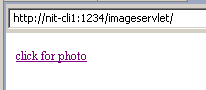
<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

Input:



Output:



1. Write a servlet application to to refresh the page for every 4 seconds.

Refresh.java:

// Import required java libraries

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.\*;

// Extend HttpServlet class

public class Refresh extends HttpServlet {

// Method to handle GET method request.

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set refresh, autoload time as 5 seconds

response.setIntHeader("Refresh", 5);

// Set response content type

response.setContentType("text/html");

// Get current time

Calendar calendar = new GregorianCalendar();

String am\_pm;

int hour = calendar.get(Calendar.HOUR);

int minute = calendar.get(Calendar.MINUTE);

int second = calendar.get(Calendar.SECOND);

if(calendar.get(Calendar.AM\_PM) == 0)

am\_pm = "AM";

else

am\_pm = "PM";

String CT = hour+":"+ minute +":"+ second +" "+ am\_pm;

PrintWriter out = response.getWriter();

String title = "Auto Page Refresh using Servlet";

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=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + title + "</h1>\n" +

"<p>Current Time is: " + CT + "</p>\n");

}

// Method to handle POST method request.

public void doPost(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

web.xml:

<web-app>

<servlet>

<servlet-name>Refresh</servlet-name>

<servlet-class>Refresh</servlet-class>

</servlet>

<servlet-mapping>

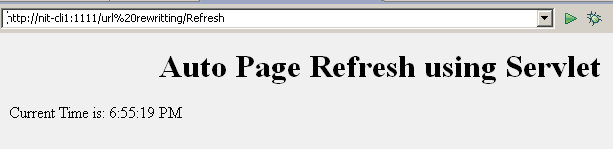
<servlet-name>Refresh</servlet-name>

<url-pattern>/Refresh</url-pattern>

</servlet-mapping>

</web-app>

Output:



1. Write a servlet application to count the number of hits to a web page.

**PageHitCounter:**

import java.io.\*;

import java.sql.Date;

import java.util.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class PageHitCounter extends HttpServlet{

private int hitCount;

public void init()

{

// Reset hit counter.

hitCount = 0;

}

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set response content type

response.setContentType("text/html");

// This method executes whenever the servlet is hit

// increment hitCount

hitCount++;

PrintWriter out = response.getWriter();

String title = "Total Number of Hits";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + title + "</h1>\n" +

"<h2 align=\"center\">" + hitCount + "</h2>\n" +

"</body></html>");

}

public void destroy()

{

// This is optional step but if you like you

// can write hitCount value in your database.

}

}

web.xml:

<web-app>

<servlet>

<servlet-name>PageHitCounter</servlet-name>

<servlet-class>PageHitCounter</servlet-class>

</servlet>

<servlet-mapping>

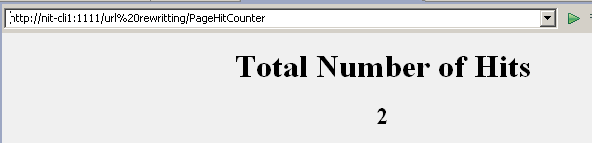
<servlet-name>PageHitCounter</servlet-name>

<url-pattern>/PageHitCounter</url-pattern>

</servlet-mapping>

</web-app>

Output:



1. Write a servlet application using user defined Exceptions

Index.jsp:

<html>

<body bgcolor=*"#89789678"*>

<form action=*"./servlet"*>

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

Enter Salary:<input type=*"text"* name=*"salary"*><br><br>

<input type=*"submit"* value=*"enter"*>

</form>

</body>

</html>

ProcessException.java:

**public** **class** ProcessException **extends** RuntimeException

{

ProcessException(String msg)

{

**super**(msg);

}

}

DataNotFoundException:

**public** **class** DataNotFoundException **extends** RuntimeException{

DataNotFoundException(String msg)

{

**super**(msg);

System.*out*.println("datanotfound exception");

}

}

MyServlet.java:

import java.io.IOException;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class MyServlet extends HttpServlet {

Connection con=null;

PreparedStatement ps=null;

ResultSet rs=null;

public void destroy() {

super.destroy(); // Just puts "destroy" string in log

}

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

String name=request.getParameter("name");

response.setContentType("text/html");

try {

ps=con.prepareStatement("Select \* from emp1 where ename=?");

ps.setString(1,name);

rs=ps.executeQuery();

if(rs.next())

{

System.out.println("Data Exist");

}

else

{

throw new DataNotFoundException("The Required Data is Not Available in Data Base");

}

} catch (SQLException e) {

throw new ProcessException("Processiong Exception occurs internally");

}

}

public void init() throws ServletException {

try {

Class.forName("oracle.jdbc.driver.OracleDriver");

con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");

}

catch (Exception e) {

e.printStackTrace();

}

}

}

Process.html:

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">

<html>

<head>

<title>process.html</title>

</head>

<body bgcolor=*"#987009"*>

Processing Error <br>

</body>

</html>

Dnfl.html:

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">

<html>

<head>

<title>dnfl.html</title>

</head>

<body bgcolor=*"blue"*>

Data NotFound <br>

</body>

</html>

web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app version=*"2.5"*

xmlns=*"http://java.sun.com/xml/ns/javaee"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xsi:schemaLocation=*"http://java.sun.com/xml/ns/javaee*

*http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd"*>

<servlet>

<description>This is the description of my J2EE component</description>

<display-name>This is the display name of my J2EE component</display-name>

<servlet-name>MyServlet</servlet-name>

<servlet-class>MyServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>MyServlet</servlet-name>

<url-pattern>/servlet</url-pattern>

</servlet-mapping>

<error-page>

<exception-type>ProcessException</exception-type>

<location>/process.html</location>

</error-page>

<error-page>

<exception-type>DataNotFoundException</exception-type>

<location>/Dnfl.html</location>

</error-page>

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

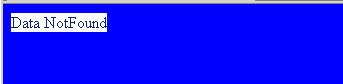
</web-app>

Output:



Data Exist 🡪this message is displayed in browser

If you enter wrong data



If any processing error occurs

Processing error

1. Write a Servlet application to send the mail through the gmail server (this application works through internet).

**index.jsp:**

<html>

<body bgcolor="cyan">

<form action="servlet/SendMail">

To:<input type="text" name="to"/><br/>

Subject:<input type="text" name="subject"><br/>

Text:<textarea rows="10" cols="70" name="msg"></textarea><br/>

<input type="submit" value="send">

</form>

</body>

</html>

**SendMail.java:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class SendMail extends HttpServlet {

/\*\*

\*

\*/

private static final long serialVersionUID = 1L;

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String to=request.getParameter("to");

String subject=request.getParameter("subject");

String msg=request.getParameter("msg");

Mailer.send(to, subject, msg);

out.print("message has been sent successfully");

out.close();

}

}

**Mailer.java:**

import java.util.Properties;

import javax.mail.\*;

import javax.mail.internet.InternetAddress;

import javax.mail.internet.MimeMessage;

public class Mailer {

public static void send(String to,String subject,String msg){

final String user="XXXXXXXXXXXXXXX@gmail.com";//enter your email id

final String pass="XXXXXXXXXX";/\*Enter your password here\*/

//1st step) Get the session object

Properties props = new Properties();

props.put("mail.smtp.host", "smtp.gmail.com");

props.put("mail.smtp.socketFactory.port", "465");

props.put("mail.smtp.socketFactory.class",

"javax.net.ssl.SSLSocketFactory");

props.put("mail.smtp.auth", "true");

props.put("mail.smtp.port", "465");

Session session = Session.getDefaultInstance(props,

new javax.mail.Authenticator() {

protected PasswordAuthentication getPasswordAuthentication() {

return new PasswordAuthentication(user,pass);

}

});

//2nd step)compose message

try {

MimeMessage message = new MimeMessage(session);

message.setFrom(new InternetAddress(user));

message.addRecipient(Message.RecipientType.TO,new InternetAddress(to));

message.setSubject(subject);

message.setText(msg);

//3rd step)send message

Transport.send(message);

System.out.println("Done");

} catch (MessagingException e) {

throw new RuntimeException(e);

}

}

}

**web.xml:**

<web-app>

<servlet>

<servlet-name>SendMail</servlet-name>

<servlet-class>SendMail</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>SendMail</servlet-name>

<url-pattern>/servlet/SendMail</url-pattern>

</servlet-mapping>

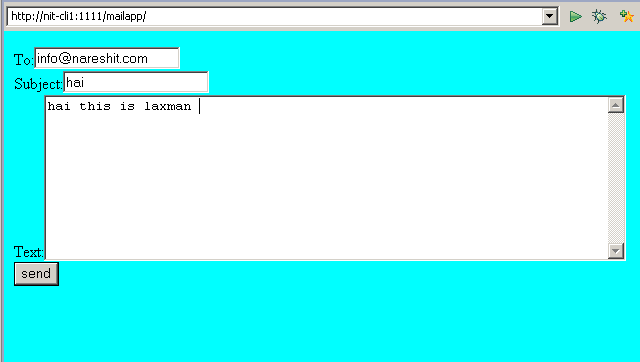
<welcome-file-list>

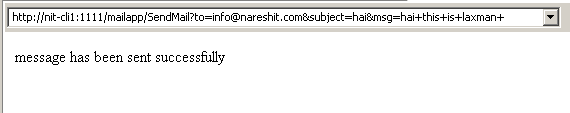
<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

Output:





1. Write a servlet application to retrive the data from the database without reloding the whole page using servlets and ajax

**index.jsp:(**ajax code is availabe here)

<html>

<head>

<title>AJAX Get Servlet</title>

<script type="text/javascript">

function getXmlHttpRequestObject()

{

var xmlHttp = false;

if (window.XMLHttpRequest)

{

return new XMLHttpRequest(); //To support the browsers IE7+, Firefox, Chrome, Opera, Safari

}

else if(window.ActiveXObject)

{

return new ActiveXObject("Microsoft.XMLHTTP"); // For the browsers IE6, IE5

}

else

{

alert("Error due to old verion of browser upgrade your browser");

}

}

var xmlhttp = new getXmlHttpRequestObject(); //xmlhttp holds the ajax object

function servletGet() {

if(xmlhttp) {

var txtname = document.getElementById("txtname");

xmlhttp.open("GET","ServletGet?txtname="+txtname.value,true);

xmlhttp.onreadystatechange = handleServletGet;

xmlhttp.send();

}

}

function handleServletGet() {

if (xmlhttp.readyState == 4) {

if(xmlhttp.status == 200) {

document.getElementById("message").innerHTML=xmlhttp.responseText;

}

else {

alert("Ajax calling error");

}

}

}

</script>

</head>

<body bgcolor="LIGHTGREEN">

<form>

<table>

<tr>

<td>Enter Name</td>

<td><input type="text" id="txtname" /></td>

</tr>

<tr>

<td><input type="button" value="Submit" onblur="servletGet();" /></td>

</tr>

</table>

<div id="message"></div>

</form>

</body>

</html>

DataBaseConnection.java:

import java.sql.Connection;

import java.sql.DriverManager;

public class DataBaseConnection

{

Connection con=null;

public Connection getConnection()

{

try

{

Class.forName("oracle.jdbc.driver.OracleDriver");

con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

}

catch(Exception e)

{e.printStackTrace();}

return con;

}

}

ServletGet.java:

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class ServletGet extends HttpServlet

{

public void doGet(HttpServletRequest req,HttpServletResponse response)

throws IOException, ServletException

{

try

{

DataBaseConnection d=new DataBaseConnection();

Connection con=d.getConnection();

PreparedStatement ps=con.prepareStatement("select \* from emptable where ename=?");

System.out.println(con);

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String name=req.getParameter("txtname");

System.out.println(name);

ps.setString(1,name);

ResultSet rs=ps.executeQuery();

if(rs.next())

{

out.println("<table><tr><td>"+rs.getInt(1)+"</td><td>"+rs.getString(2)+"</td><td>"+rs.getFloat(3)+"</td></tr></table>");

}

}

catch(Exception e)

{e.printStackTrace();}

}

}

web.xml:

<?xml version="1.0" encoding="UTF-8"?>

<web-app version="2.5"

xmlns="http://java.sun.com/xml/ns/javaee"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://java.sun.com/xml/ns/javaee

http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd">

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

<servlet>

<servlet-name>ServletGet</servlet-name>

<servlet-class>ServletGet</servlet-class>

</servlet>

<servlet-mapping>

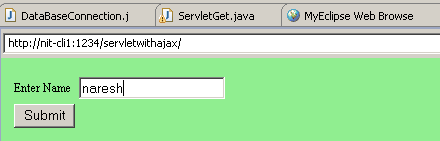
<servlet-name>ServletGet</servlet-name>

<url-pattern>/ServletGet</url-pattern>

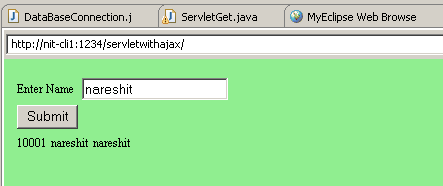
</servlet-mapping>

</web-app>

Input:



Output:



1. Write a servlet application to perform the internationalization.

GetLocale.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.Locale;

public class GetLocale extends HttpServlet{

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

//Get the client's Locale

Locale locale = request.getLocale();

String language = locale.getLanguage();

String country = locale.getCountry();

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String title = "Detecting Locale";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + language + "</h1>\n" +

"<h2 align=\"center\">" + country + "</h2>\n" +

"</body></html>");

}

}

DisplaySpanish.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.Locale;

public class DisplaySpanish extends HttpServlet{

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

// Set spanish language code.

response.setHeader("Content-Language", "es");

String title = "En Espa&ntilde;ol";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1>" + "En Espa&ntilde;ol:" + "</h1>\n" +

"<h1>" + "&iexcl;Hola Mundo!" + "</h1>\n" +

"</body></html>");

}

}

DateLocale.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.Locale;

import java.text.DateFormat;

import java.util.Date;

public class DateLocale extends HttpServlet{

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//Get the client's Locale

Locale locale = request.getLocale( );

String date = DateFormat.getDateTimeInstance(

DateFormat.FULL,

DateFormat.SHORT,

locale).format(new Date( ));

String title = "Locale Specific Dates";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + date + "</h1>\n" +

"</body></html>");

}

}

CurrencyLocale.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.Locale;

import java.text.NumberFormat;

import java.util.Date;

public class CurrencyLocale extends HttpServlet{

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//Get the client's Locale

Locale locale = request.getLocale( );

NumberFormat nft = NumberFormat.getCurrencyInstance(locale);

String formattedCurr = nft.format(1000000);

String title = "Locale Specific Currency";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + formattedCurr + "</h1>\n" +

"</body></html>");

}

}

PercentageLocale.java:

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.Locale;

import java.text.NumberFormat;

import java.util.Date;

public class PercentageLocale extends HttpServlet{

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException

{

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//Get the client's Locale

Locale locale = request.getLocale( );

NumberFormat nft = NumberFormat.getPercentInstance(locale);

String formattedPerc = nft.format(0.51);

String title = "Locale Specific Percentage";

out.println("<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor=\"#f0f0f0\">\n" +

"<h1 align=\"center\">" + formattedPerc + "</h1>\n" +

"</body></html>");

}

}

web.xml:

<web-app>

<servlet>

<servlet-name>one</servlet-name>

<servlet-class>GetLocale</servlet-class>

</servlet>

<servlet>

<servlet-name>two</servlet-name>

<servlet-class>DisplaySpanish</servlet-class>

</servlet>

<servlet>

<servlet-name>three</servlet-name>

<servlet-class>DateLocale</servlet-class>

</servlet>

<servlet>

<servlet-name>four</servlet-name>

<servlet-class>CurrencyLocale</servlet-class>

</servlet>

<servlet>

<servlet-name>five</servlet-name>

<servlet-class>PercentageLocale</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>one</servlet-name>

<url-pattern>/get</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>two</servlet-name>

<url-pattern>/display</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>three</servlet-name>

<url-pattern>/date</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>four</servlet-name>

<url-pattern>/currency</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>five</servlet-name>

<url-pattern>/percentage</url-pattern>

</servlet-mapping>

</web-app>

Output:

Getlocale output:

**en**

**US**

Displayspanish output:

# En Español:

# ¡Hola Mundo!

DateLocale output:

# Friday, November 8, 2013 7:58 PM

CurrencyLocale output:

# $1,000,000.00

percentageLocale ouput:

# 51%

1. Write a program to add and subtract two numbers ?

Index.jsp:

<html>

<body bgcolor=*"orange"*>

<form action=*"./action"*>

Enter Number 1:<input type=*"text"* name=*"num1"*/><br>

Enter Number 2:<input type=*"text"* name=*"num2"*/><br>

<input type=*"submit"* value=*"add"* name=*"submit"*/><br>

<input type=*"submit"* value=*"sub"* name=*"submit"*/>

</form>

</body>

</html>

Servlet1.java:

package com.nit;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class Servlet1 extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String but1=request.getParameter("submit");

int num1=Integer.parseInt(request.getParameter("num1"));

int num2=Integer.parseInt(request.getParameter("num2"));

if(but1.equals("add"))

{

int x=add(num1,num2);

out.println("sum of two numbers are "+x);

}

else if(but1.equals("sub"))

{

int y=sub(num1,num2);

out.println("sub of two numbers are "+y);

}

}

int add(int a,int b)

{

return a+b;

}

int sub(int a,int b)

{

return a-b;

}

}

web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app version=*"2.5"*

xmlns=*"http://java.sun.com/xml/ns/javaee"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xsi:schemaLocation=*"http://java.sun.com/xml/ns/javaee*

*http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd"*>

<servlet>

<description>This is the description of my J2EE component</description>

<display-name>This is the display name of my J2EE component</display-name>

<servlet-name>Servlet1</servlet-name>

<servlet-class>com.nit.Servlet1</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Servlet1</servlet-name>

<url-pattern>/action</url-pattern>

</servlet-mapping>

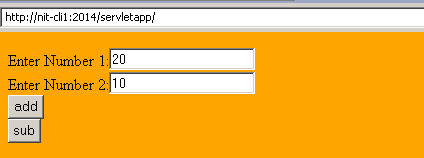
<welcome-file-list>

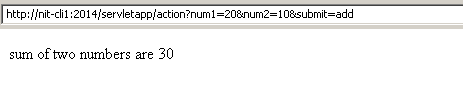
<welcome-file>index.jsp</welcome-file>

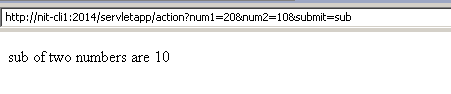
</welcome-file-list>

</web-app>

Output:







1. Write a servlet application to print the servlet content in pdf format ?

Index.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

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>Insert title here</title>

</head>

<body>

<form action=*"hai"*>

<button type=*"submit"*>Click to View PDF File</button>

</form>

</body>

</html>

pdfservlet.java:

import javax.servlet.\*;

import javax.servlet.http.\*;

import com.lowagie.text.pdf.PdfPTable;

import com.lowagie.text.pdf.PdfPCell;

import com.lowagie.text.pdf.PdfWriter;

import com.lowagie.text.Document;

import com.lowagie.text.DocumentException;

import com.lowagie.text.Paragraph;

import java.io.\*;

import java.util.\*;

public class pdfServlet extends HttpServlet {

public void init(ServletConfig config) throws ServletException{

super.init(config);

}

public void doGet(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException{

doPost(request, response);

}

public void doPost(HttpServletRequest request,

HttpServletResponse response)

throws ServletException, IOException{

response.setContentType("application/pdf"); // Code 1

Document document = new Document();

try{

PdfWriter.getInstance(document,

response.getOutputStream()); // Code 2

document.open();

document.add(new Paragraph("WELCOME TO NARESHIT............"));

document.close();

}catch(DocumentException e){

e.printStackTrace();

}

}

}

web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app version=*"2.5"*

xmlns=*"http://java.sun.com/xml/ns/javaee"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xsi:schemaLocation=*"http://java.sun.com/xml/ns/javaee*

*http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd"*>

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

<servlet>

<servlet-name>servlet1</servlet-name>

<servlet-class>pdfServlet</servlet-class>

</servlet>

<servlet-mapping>

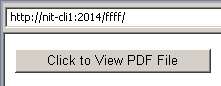
<servlet-name>servlet1</servlet-name>

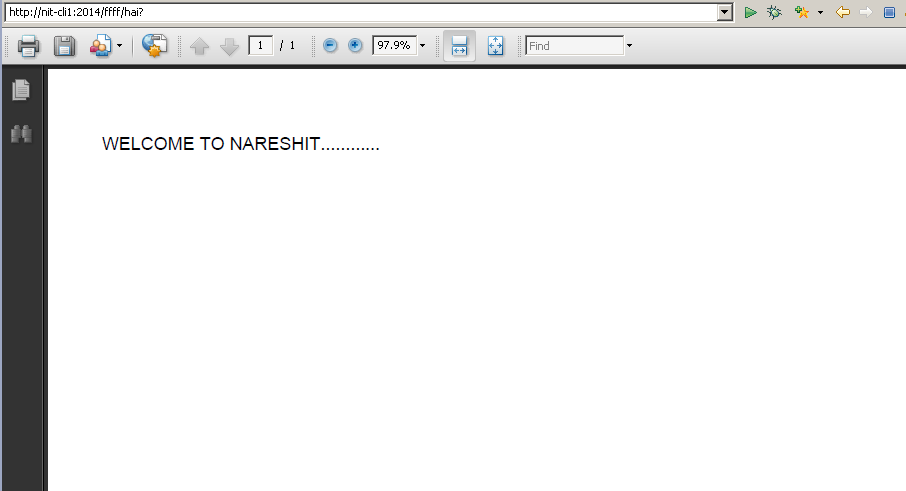
<url-pattern>/hai</url-pattern>

</servlet-mapping>

</web-app>

Output:





1. Write a servlet application using annotations.

Simple.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("/Simple")

public class Simple extends HttpServlet {

private static final long serialVersionUID = 1L;

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

response.setContentType("text/html");

PrintWriter out=response.getWriter();

out.print("<html><body>");

out.print("<h3>Hello Servlet</h3>");

out.print("</body></html>");

}}

Output:

Hello Servlet