

Practical no: 5

Problem Statement: 1. Design and Build Student Login Page using JSP, Servlet and MySQL. 2. Design and Build Employee Login Page using JSP, Servlet and MySQL.

Name: Aditi Dinesh Mulay

Class: T.E. Computer

Subject: Web Technology

Div: A

Roll no: 02

PRN No. 71918146B

Wt

Practical 5

Aditi Dinesh Mway
TE. Comp Div: A
Roll no: 2

Title: JSP, servlet and MySQL.

Problem Statements:

- 1) Design and Build Student Login Page using JSP, Servlet and MySQL.
- 2) Design and Build Employee Login Page using JSP, Servlet and MySQL.

Software Needed:

- 1) Any O.S.
- 2) JDK 7 or later
- 3) Editors, Netbeans | Eclipse
- 4) Web browser
- 5) Tomcat 7 or later.

Theory Concept:

Java Server Pages (JSP): It is a server side programming technology that is used to create dynamic web-based applications. JSP have right to use the complete Java APIs, including the JDBC API to access the databases.

It is a technology that helps software developers to create dynamic web pages based on HTML, XML & other document types. It was released in 1999 by Sun Microsystems. It is just like a PHP, ASP but it uses a Java Programming language.

Using JSP you can collect info from users through webpage forms, current records from a db or other source and create web pages dynamically.

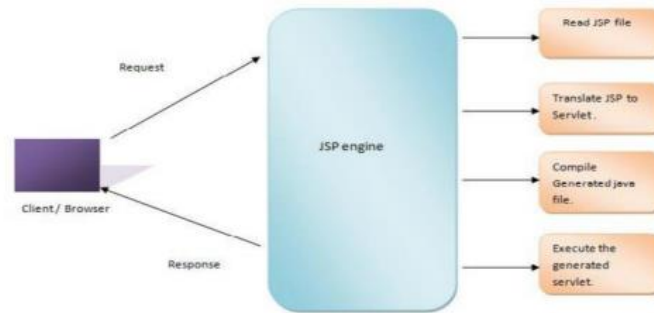


Figure.2: Architecture of JSP

* Why we need JSP?

JSP is used for design of dynamic webpage and servlet is used to code the logic that is present. i.e. in MVC architecture, the servlet is the controller & JSP is the view.

* Architecture of JSP

1. The request/response part of a JSP is defined in below architecture.
2. The client initiated request for a JSP file using browser.
3. Web server i.e. invokes the JSP file and interpret JSP file produce a java code. The created java code will be a servlet.
4. Once Servlet is created, Jsp engine compiles the servlet. Compilation errors will be detected in this phase.
5. Now servlet class is loaded by the container & executes it.
6. Engine sends the response back to client.

* Syntax of JSP.

Jsp declarations is used to declare variables & methods as, `<% text %>`

Ex: // Hello.jsp

```
<html>
```

```
<head>
```

```
<title>JSP File</title>
```

```
</head>
```

```
<body>
```

```
<%
```

```
    out.println("Welcome to Jsp class");
```

```
%>
```

```
</body>
```

```
</html>
```

O/p:	Welcome to Jsp class.
* Servlet:	A Servlet is a server side program and written in java. Servlet is a web component that is deployed on the server for creating the dynamic web pages.
* Technology:	1> JSP and Servlets 2> IDE: NetBeans 7.0 or later 3> Databases: MySQL
* Design/Execution	1> Design html and jsp files with an extension of .html and .jsp. 2> Write database connection page using servlet. 3> Set MySQL username, password and database name in database connection page. 4> Start the Tomcat server with port number. 5> Open the browser and type localhost:8084.
* Test cases	Manual testing is used to validate fields like username, password, mobile no. & email id of users.
* Conclusion	Hence, we performed the dynamic web application using JSP, Servlet and MySQL.

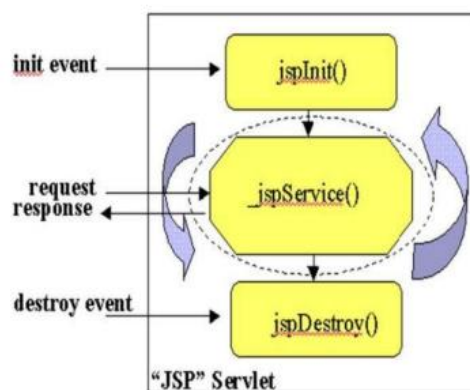



Figure.3: Functions of Servlet

CODE:



```
<%-- Document : Login
Created on : Dec 31, 2017, 2:07:34 PM
Author : Admin --%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF- 8"> <title> Login </title>
</head>
<body>
<table>
<tr>
<td width="300"></td>
<td> <font color="#339900" size="3.5">User Login</font>
<table>
<tr>
<td>
<form id="user1" method="post" action="User.jsp" name="s" onSubmit="return
validId()">
<table border="2,0">
<tr>
<td>
User Id</td>
<td><input type="text" name="user1"></td>
</tr>
<tr>
<td>
Password</td>
<td><input type="password" name="pass"></td>
</tr>
<tr>
<td>
<center><input type="submit" name="user" value="Login"></center>
</td>
</tr></table>
<center><table>
<tr>
<td>
<a href="Signup.jsp"><font color="#000000" size="2"><b>New
User?</b></font></a></td></tr></table>
</td>
</tr></table></center>
</td>
</tr>
</table>
</form>
</body>
</html>
```

```
<%@ page import="java.sql.*" %>
<%@ page import="java.util.Date, java.text.SimpleDateFormat, java.text.ParseException" %>
<!-- Document : Signup Created on : Dec 30, 2017, 11:52:03 PM Author : Admin --%>
<%page contentType="text/html" pageEncoding="UTF-8" %>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body bgcolor="skyblue">
        <% java.util.Date now=new java.util.Date(); String DATE_FORMAT1="dd/MM/yyyy"; SimpleDateFormat sdf1=new SimpleDateFormat(DATE_FORMAT1); String strDateNow1=sdf1.format(now); %>
        <table border="black" bgcolor=" black" align="center">
            <tr>
                <td><strong><em>
                    <font color="#990000" size="+1" face="Times New Roman" style="text-decoration:underline;">User Registrations</font>
                </em></strong>
                </td>
            </tr>
        </table>
        <table border="black" align="center">
            <tr>
                <td>
                    <form name="s" action="LoginServlet.jsp" method="get" onSubmit="return valid();"
                        <table align="center" cellpadding="6" cellspacing="6" width="400" height="300">
                            <tr>
                                <td>
                                    <td>
                                        <font face="Times New Roman" size="+1"><strong>Name</strong>
                                        </font>
                                    </td>
                                    <td>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="text" name="unn" class="b"></td>
                                </tr>
                                <tr>
                                    <td>
                                        <font face="Times New Roman" size="+1"><strong>User ID</strong>
                                        </font>
                                    </td>
```



```

loginSuccess.jsp
x +
File | E:\All%20prgms\WT\loginSuccess.jsp
<meta http-equiv="Content-Type" content="text/html; charset=UTF- 8">
<title>JSP Page</title>
</head>
<body>
<h1>
<font color="Red"> Please Provide Correct Username or Password!..Retry Again!.. </font>
</h1>
<table>
<tr>
<td>
<form id="user1" method="post" action="User.jsp" name="s" onSubmit="return
valid()">
<table>
<tr>
<td>
User Id</td>
<td><input type="text" name="user1"></td>
</tr>
<tr>
<td>
Password</td>
<td><input type="password" name="pass"></td>
</tr>
<tr>
<td>
<td>
<input type="submit" name="user" value="Login">
</td>
</tr>
</table>
</form>
</td>
</tr>
</table>
</body>
</html>

```

```

loginServlet.jsp
x +
File | E:\All%20prgms\WT\loginServlet.jsp
<%@page import="java.sql.*"%>
<%@ page import="java.io.*"%>
<%@ page import = "java.util.Date,java.text.SimpleDateFormat,java.text.ParseException"%>
<%
String a = request.getParameter("uid");
String x = request.getParameter("unn");
String b = request.getParameter("pass");
String c = request.getParameter("mob");
String d = request.getParameter("eidd");
session.setAttribute("d",d);
//String f=request.getParameter("date");
//out.print(strDateNew);
//out.print(x);
//out.print(b);
//out.print(c);
//out.print(d);
//out.print(f);
java.util.Date now = new java.util.Date();
String DATE_FORMAT = "yyyy-MM-dd";
SimpleDateFormat sdf = new SimpleDateFormat(DATE_FORMAT);
String strDateNew = sdf.format(now);
//response.sendRedirect("signup.jsp?message=success"); //String
userid=null;
//String m="avl";
try
{
Class.forName("com.mysql.jdbc.Driver");
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/loginpage","root","root");
PreparedStatement ps=con.prepareStatement("insert into
student(sname,suserid,spass,mobile,email,date) values(?,?,?,?,?,?,"+strDateNew+"");
//ResultSet rs=ps.executeQuery();
ps.setString(1,x);
ps.setString(2,a);
ps.setString(3,b);
ps.setString(4,c);
ps.setString(5,d);
ps.executeUpdate();
response.sendRedirect("SignUp.jsp?success");
}
catch(Exception e1)
{
out.println(e1.getMessage());
response.sendRedirect("SignUp.jsp?Failure");%>
%>

```

```

user.jsp
File | file:///E:/All%20prgms/WT/user.jsp
<% page import="java.sql.*";%>
<%
String a=request.getParameter("user1");
String b=request.getParameter("pass");
String id=null,name=null,userId=null,email=null;
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/loginpage","root","root");
//Connection con = databasecon.getConnection();
PreparedStatement ps=con.prepareStatement("select sid,sname,suserid,email from student where
suserid='"+a+"' && spass='"+b+"'");
ResultSet rs=ps.executeQuery();
if(rs.next())
{
id=rs.getString("sid");
name=rs.getString("sname");
userId=rs.getString("suserid");
email=rs.getString("email");
session.setAttribute("sid",id);
session.setAttribute("sname",name);
session.setAttribute("suserid",userId);
session.setAttribute("email",email);
//response.sendRedirect("user5.jsp");
response.sendRedirect("LoginSuccess.jsp?Success");
//out.print(name2);
}
else
{
response.sendRedirect("LoginFailure.jsp?Failure");
}
}
catch(Exception e2){
out.println(e2.getMessage());
}
}%>

```

//Database Name: loginpage
//Table Name: student

aid	sname	suserid	spass	mobile	email	date
13	Naresh	6B	naresh	6B	na...	2017-12-31
14	Naresh	6B	naresh	6B	na...	2017-12-31
15	Anand	5B	anand	5B	anand@gmail.com	2017-12-31
16	veena	5B	veena	5B	veena@gmail.com	2017-12-31
17	vani	4B	vani	4B	veena@gmail.com	2017-12-31
18	abc	3B	abc	3B	abc@gmail.com	2017-12-31
* NULL	(NULL)	OK (NULL)	OK (NULL)	OK (NULL)	OK (NULL)	OK (NULL)

OUTPUT:

Output:
Step 1: Run index.jsp page

Step 2: If user is already registered then use own credentials else click New User for registration

Step 3: Once registered click Login directly

User Login

User Id	anand
Password
<input type="button" value="Login"/>	

New User?



User Logged In Successfully!...

Step 4: If user gives wrong username and password, it will show error message



Please Provide Correct Username or Password!..Retry Again!..

User Id	<input type="text"/>
Password	<input type="password"/>
<input type="button" value="Login"/>	