

Assignment No- 5

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DATE

Name : Kajal Sunil Pagare

Rollno : 26 Div : B

Class : TE

Title : JSP, servlet and mysql.

Objectives : 1. Understand about basic Concept of html, CSS.

2. Understand the basic functionalities of JSP.

3. Having the knowledge of SQL query to create the database.

Problem Statements :

1. Design and Build Student login Page using JSP, servlet & mysql.

2. Design and Build Employee login Page using JSP, servlet and mysql.

Outcomes :- 1. Develop a dynamic webpages using JSP, HTML, and servlet.

2. Write a server side Java application called servlet to catch the data sent from client, process it and store it on database (mysql)

3. write a server side Java applications called Jsp to catch form data sent from client and store it on database

Software Needed :

1. Any operating system
2. JDK 7 or later
3. Editors; Netbeans/Eclipse. Tomcat 7 or later

Java Server Pages (JSP) : It is server side programming technology, that is used to create dynamic web-based application.

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 webpages based on HTML, XML and other document types.

It was released in 1999 by Sun microsystem.

It is just like a PHP and ASP, but it.

uses the Java programming language.

Why we need JSP?

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

Architecture. of JSP :

1. The request/response part of JSP is defined in below architecture.
2. The client initiated request for a JSP file using browser.
3. Webs servers invoke the JSP file and interpret the JSP file produce a Java code.
4. Once Servlet created, JSP engine compiles the servlet.
5. Now Servlet class is loaded by container and executed it.
6. Engine sends the response back to the client.

Syntax of JSP :

JSP declaration is used to declare variable and method as shown below.

```
<% text %>
```

Following is simple & first example JSP.

```
// Hello.Jsp
```

```
<html>
```

```
<head>
```

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

```
</head>
```

```
<body>
```

```
<% out.println("Welcome  
to JSP class");
```

```
%>
```

```
</body> </html>
```

output:

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 dynamic web pages. A Java servlet is a Java program that capabilities of a server.

Technology / Tool in Brief.

1. JSP and servlets.

2. IDE: NetBean 7.0 or later.

3. Database: MySQL.

NetBean: NetBean is an IDE, used for quickly and easily developing Java desktop, mobile & web applications.

MySQL: MySQL is freely available open Source Relational database management system.

Design / Execution Steps.

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 connections 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 the field like username, password, mobile number and email id's of the users entered by user with the database.

Conclusion → Hence, we have performed the dynamics web application using jsp, servlet and mysql.