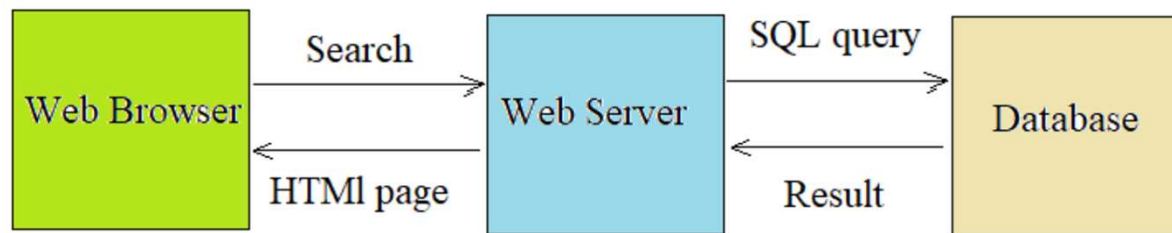


SOEN 387

Introduction to JSP

# Wb applications

- A web site where the HTML pages are generated dynamically
- Based on the user's actions



## JSPs and Servlets are:

- Java code that runs on the web server
- Reads user's actions ... normally from HTML Form
- Performs the work
- Returns an HTML page that is generated dynamically

## Some Java application servers

- Apache Tomcat.
- Jetty.
- Glassfish.
- Apache Geronimo.
- JBoss Enterprise Application Platform.

# JSP Scripting Elements

- JSP Expression <%= **some Java expression** %>
- JSP Scriptlet <% **some Java code: 1 to many lines** %>
- JSP Declaration <%! **variable or method declaration** %>

# JSP Expression

Compute an expression

Result is included in HTML returned to browser

JSP file

**The time on the server is <%= `new java.util.Date()` %>**

Generated HTML

**The time on the server is Sun Nov 08 21:45:24 EST 2022**

# JSP Scriptlets

Insert 1 to many lines of Java code

To include content in the page use: **out.println(...)**

```
<h3>Hello World of Java</h3>
<%
for (int i=1; i <= 5; i++) {
out.println("<br/>Welcome to SOEN 387: " + i);
}
%>
```

# JSP Declarations

Declare a method in the JSP page

Call the method in the same JSP page

```
<%!
```

```
// declare a method
```

```
%>
```

# JSP Declaration - Example

**<%!**

```
String Lower(String data) {  
    return data.toLowerCase();  
}
```

**%>**

Lower case "Hello World": **<%=** Lower("Hello World") **%>**

### <h3>JSP Expression examples.</h3>

Date is: <%= new java.util.Date()%>

<br>

Multiply 5 by 7 equals <%= 5\*7 %>

<br>

Is 20 > 15 <%= 20 > 15 %>

<br>

### <h3>JSP Scriptlet examples.</h3>

<%

for( int i=1; i<=10;i++)

{

out.println("<br>"+i+"x"+i+"="+i\*i);

}

%>



### <h3>JSP Declaration examples.</h3>

```
<%!  
int factorial(int n)  
{  
if(n ==1) return 1;  
else  
return (n*factorial(n-1));  
}  
%>
```

### <h3>Calling a method examples.</h3>

```
<%  
out.println("<br> 5 facorial is:"+ factorial(5));  
%>
```