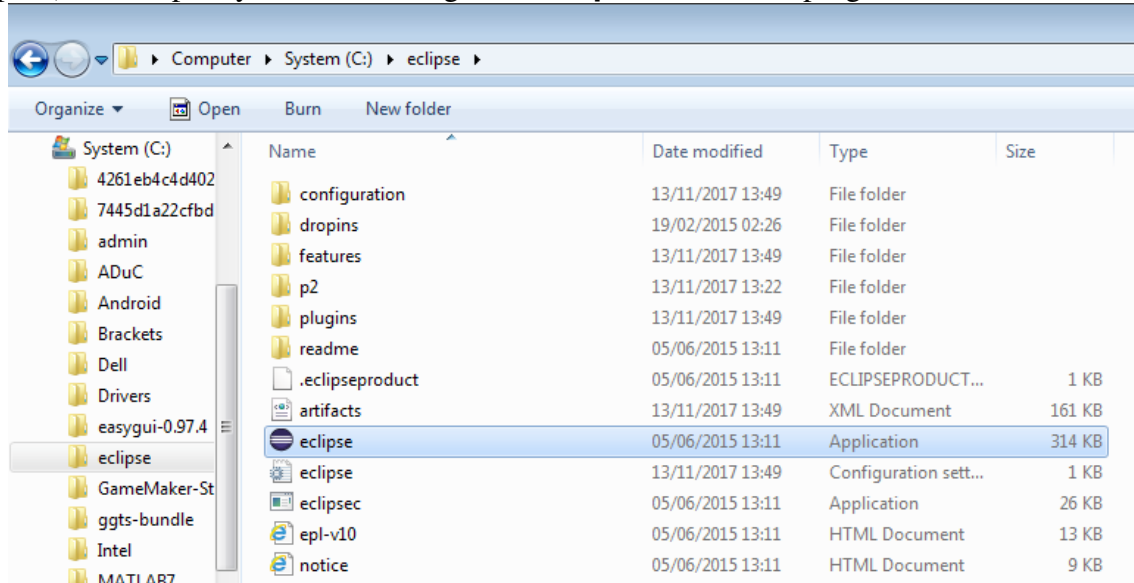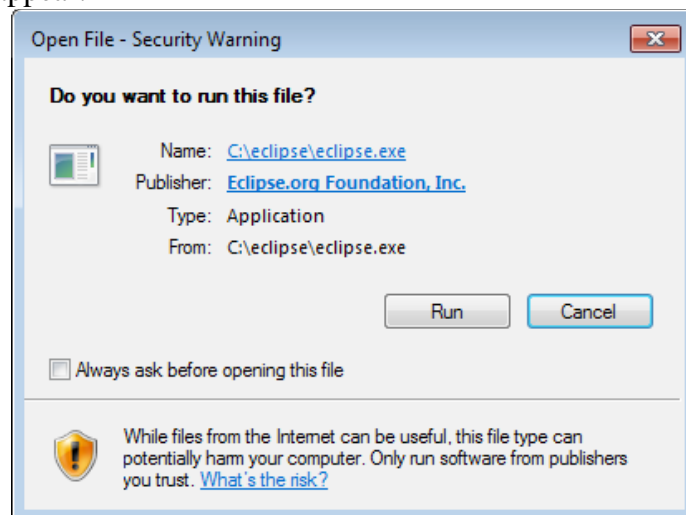# Getting Started with Java Server Pages using Eclipse

The version of Eclipse you have might not include the software necessary to use JSP. This walkthrough will show you what to do. (This walkthrough is based on Windows 7).

Start Eclipse (for example by double-clicking the **eclipse** executable program file in `C:\eclipse`)

The following screen will appear:

Uncheck the box *Always ask before opening this file* so it doesn't appear in future. Then click **Run**.

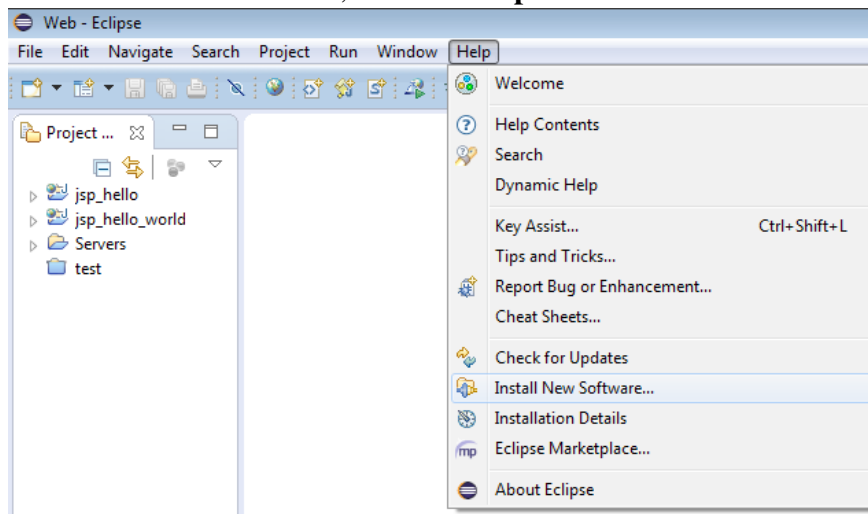The Eclipse splash-screen appears:
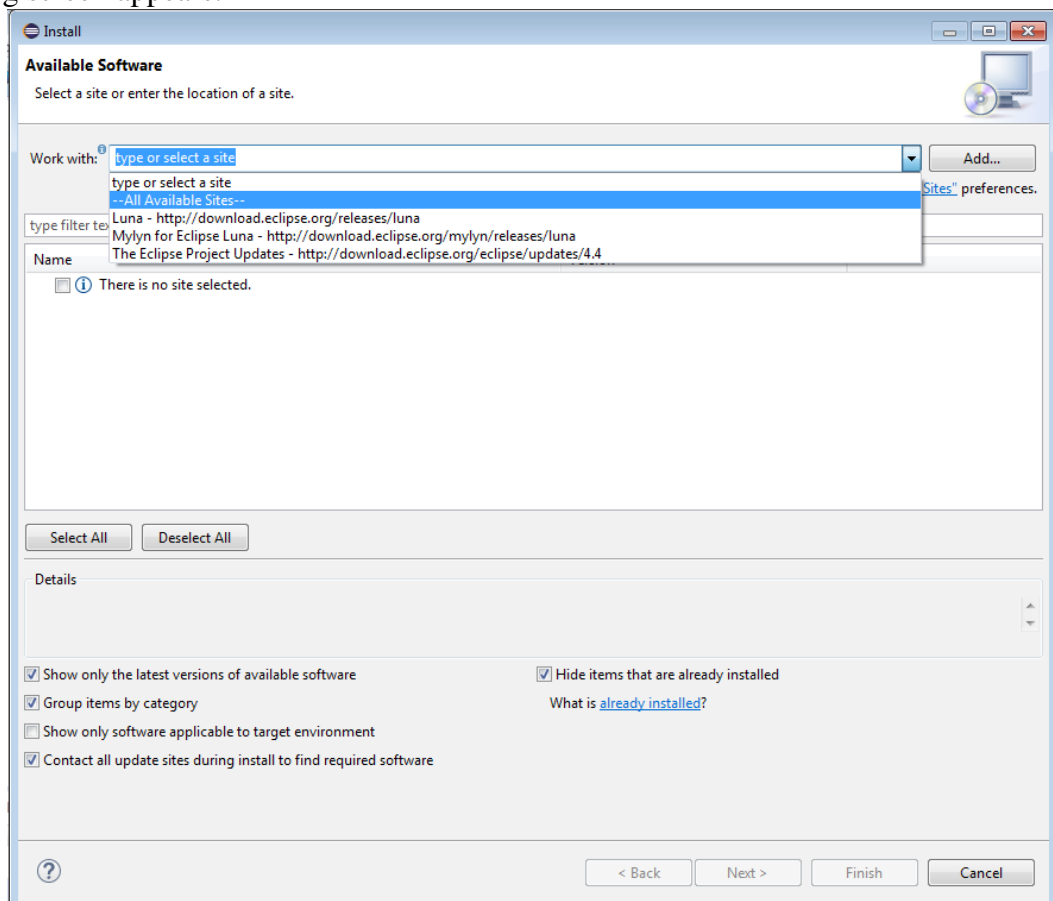
The Eclipse Welcome Screen appears:
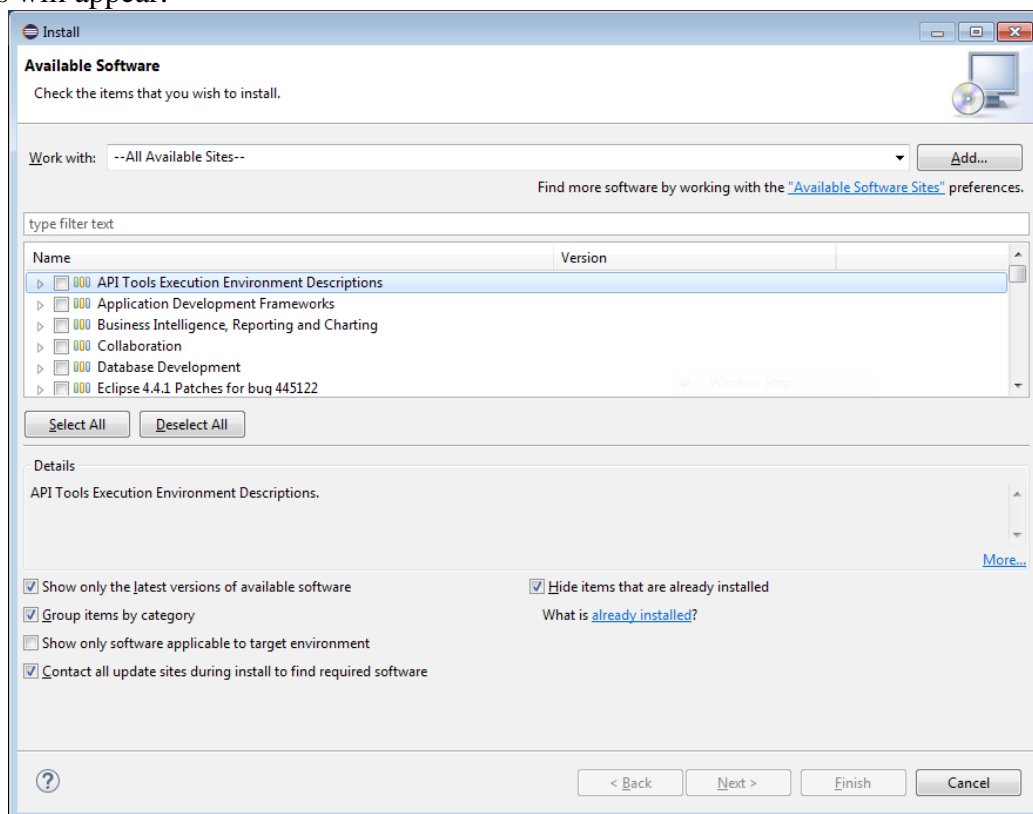

Close it by clicking on the X above.

To add the software to create and use JSP, click on **Help** -> **Install New Software**:
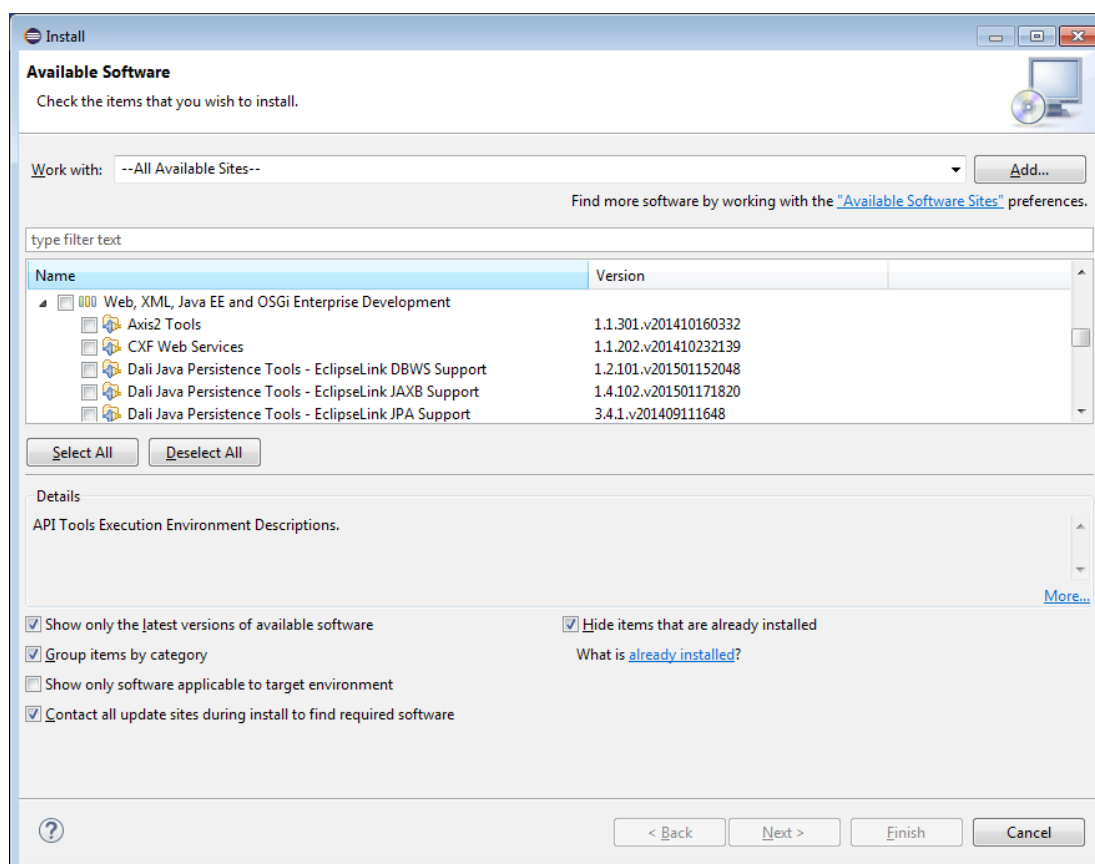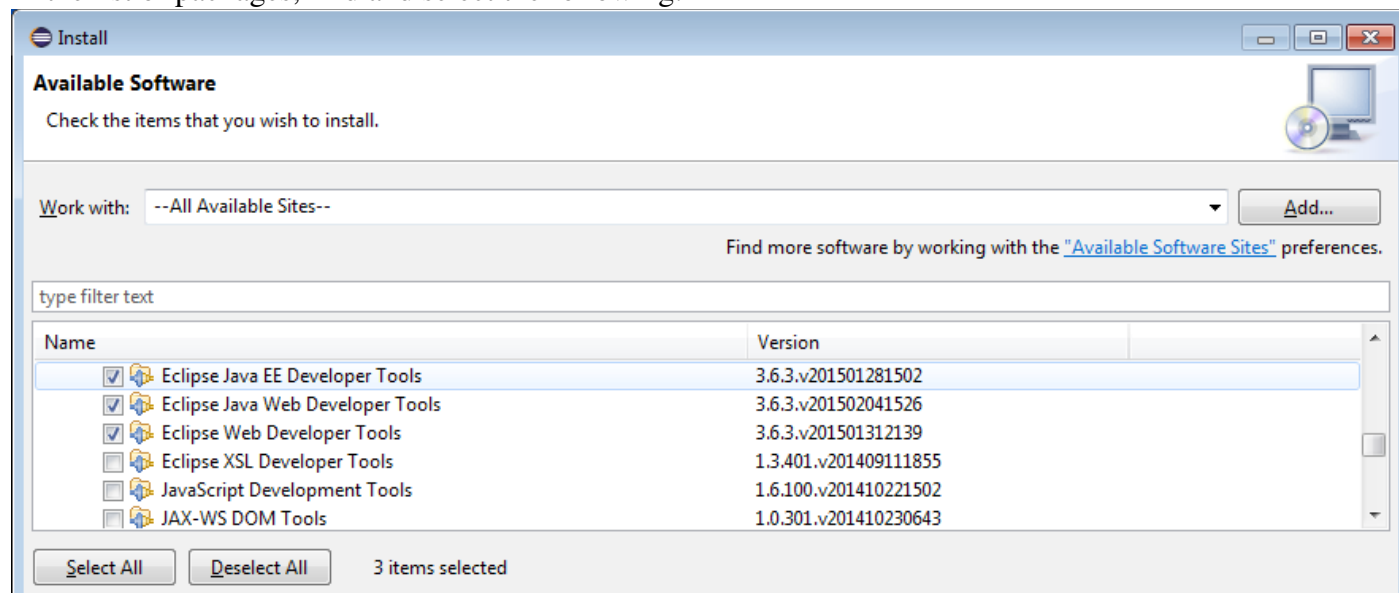

The following screen appears:

Click on *type or select a site* and select - **- All Available Sites - -** After a few moments, a list of Software tolls/packages will appear:
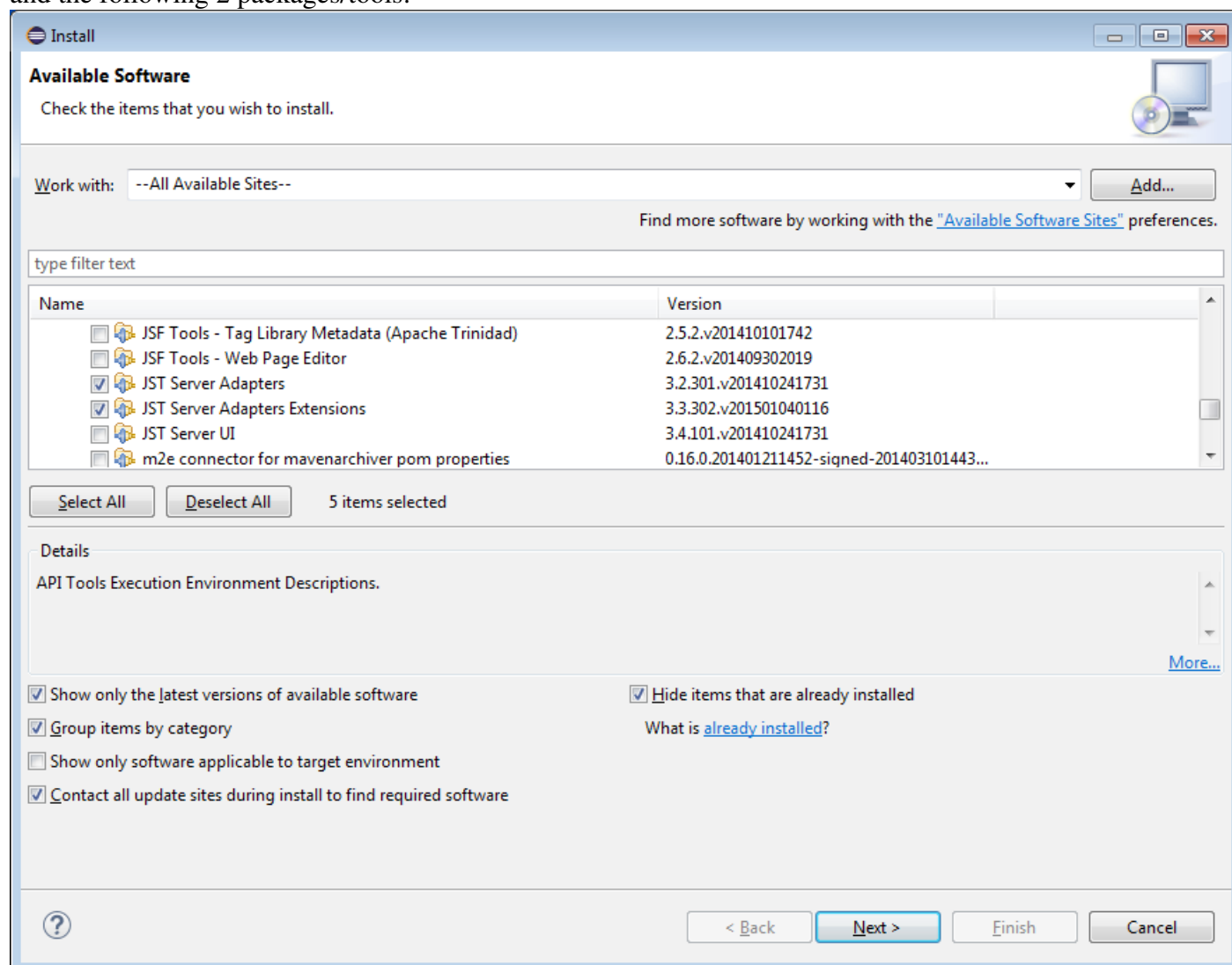

In the list of Software Tools/Packages, scroll down to Web, XML, Java EE and OSGi Enterprise Development and click on it:

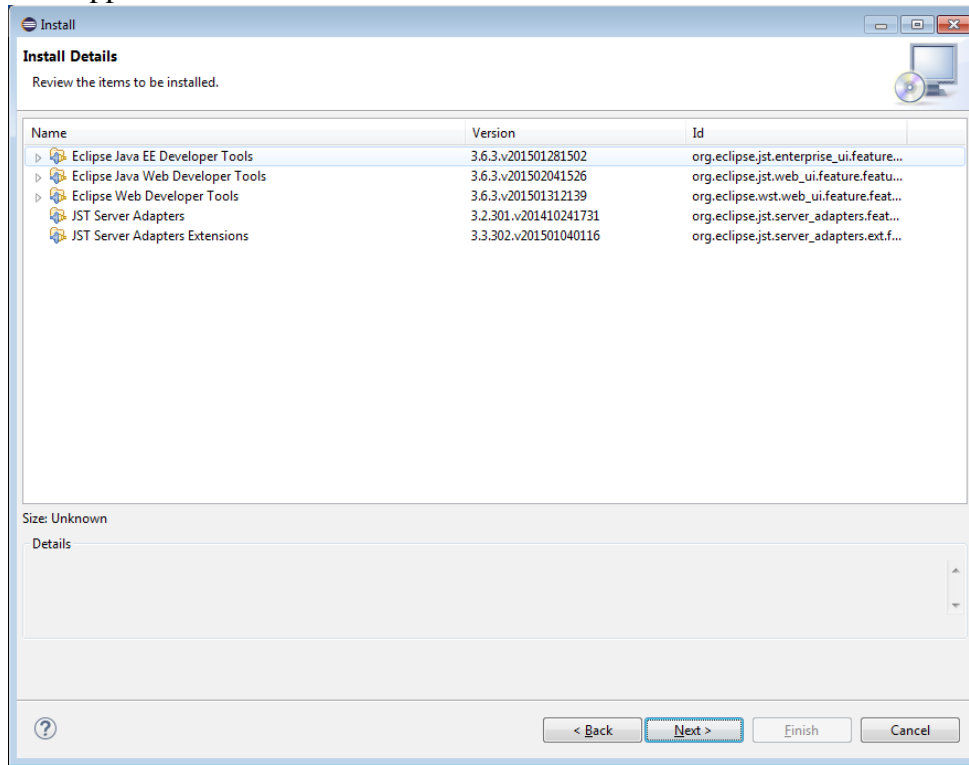In the list of packages, find and select the following:

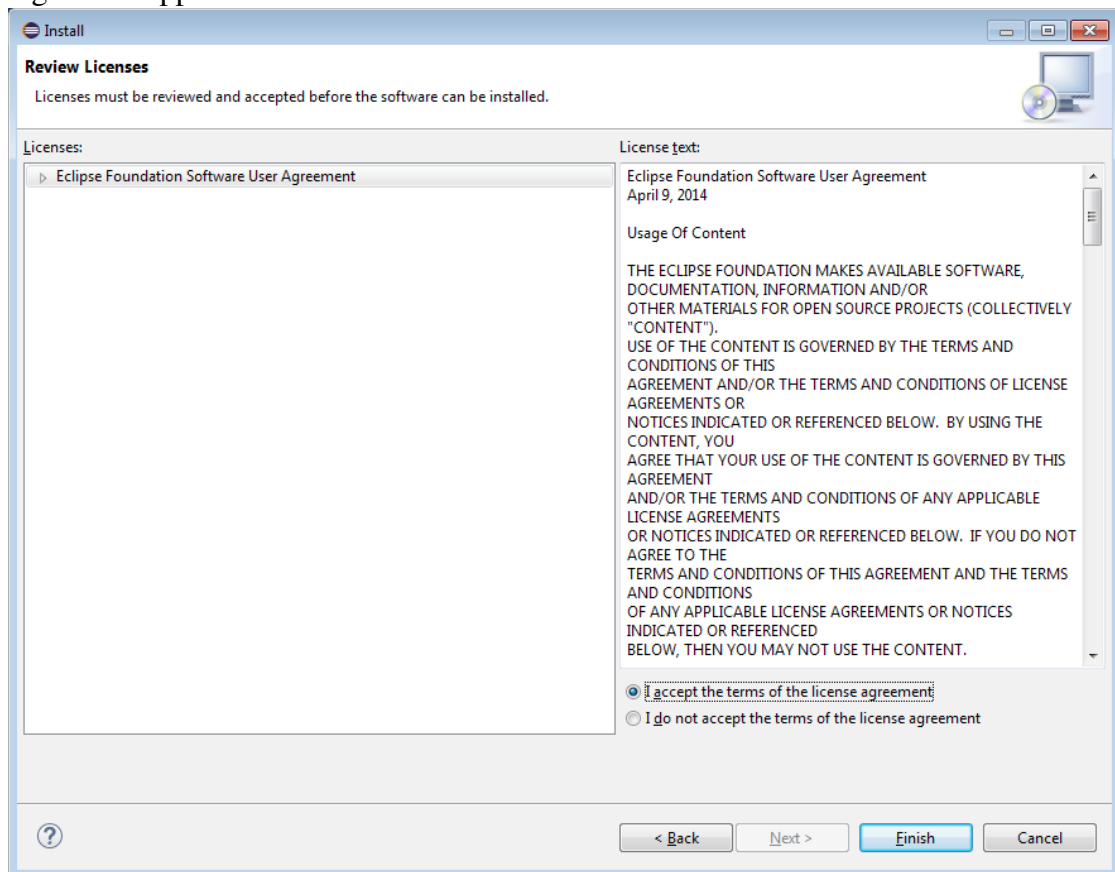and the following 2 packages/tools:

Click **Next**.
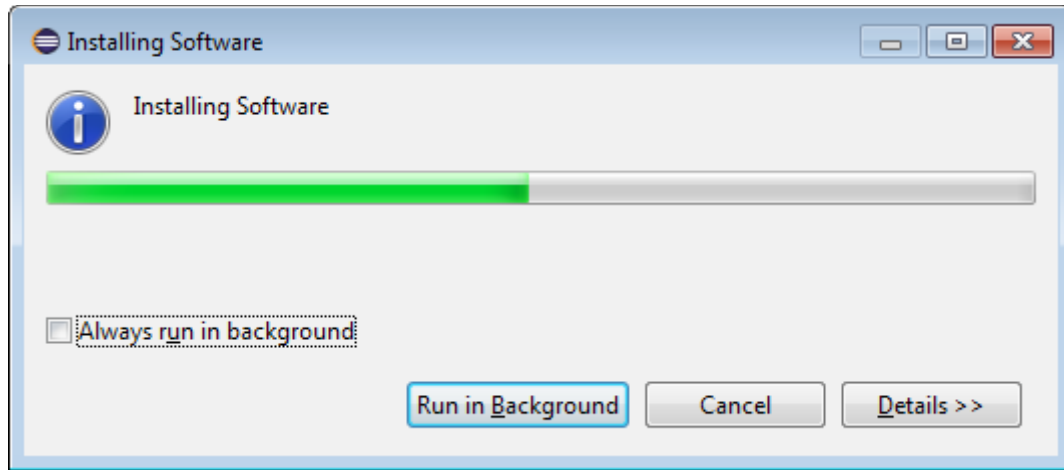
The following screen appears:

Click **Next**.

The following screen appears:

Select *I accept the terms of the license agreement* and click **Finish**.

The required software will download and install:

When the installation has compeleted, you'll be prompted to restart Eclipse:
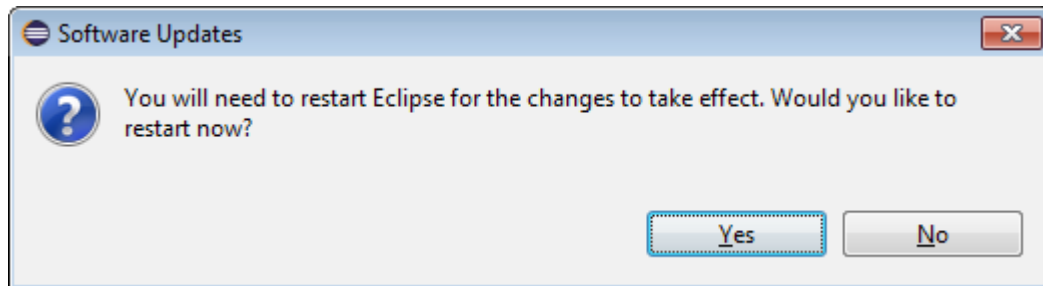
Cllick **Yes**. Eclipse will restart.

When Eclipse restarts, you need to configure it to use Apache Tomcat Server, which is a web server with a JSP engine built-in.

Click on **Window -> Preferences**:

then Click on **Server -> Runtime Environments**:

and click **Add**.

The following screen will appear:
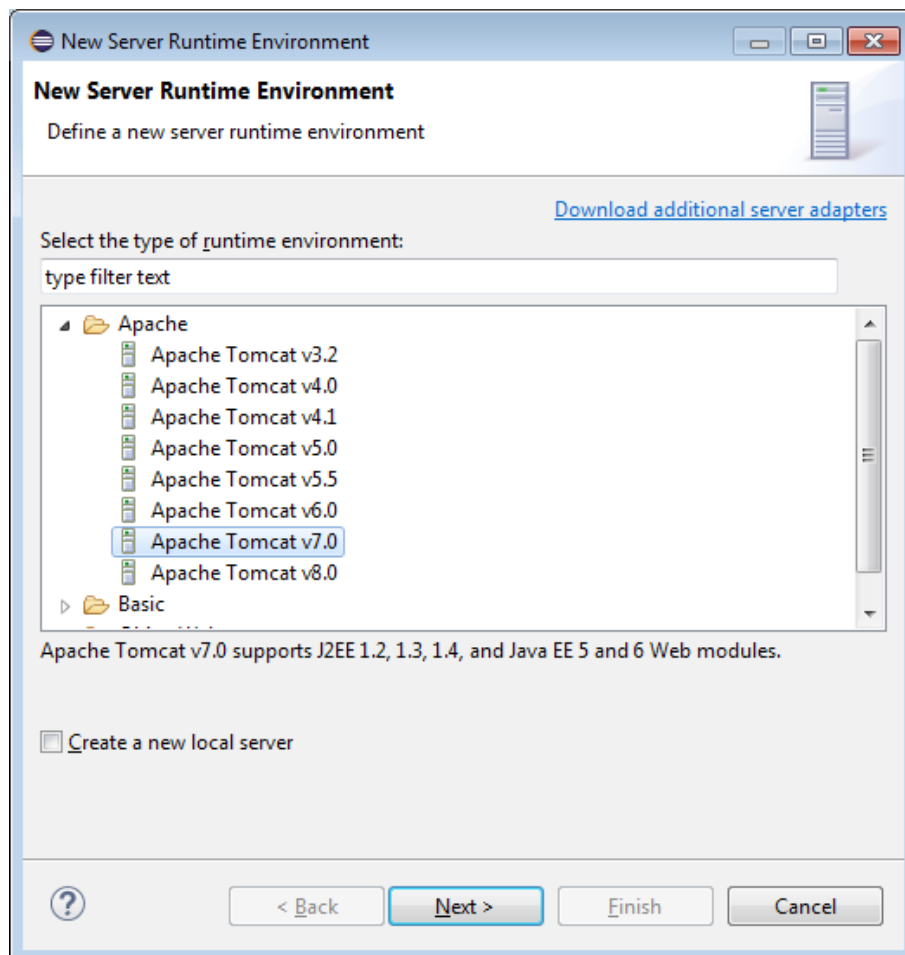
Select *Apache Tomcat v7.0* and click **Next**

The following window appears:

Click on **Browse**.

The following screen appears. Use it to go to Computer -> System (C:)
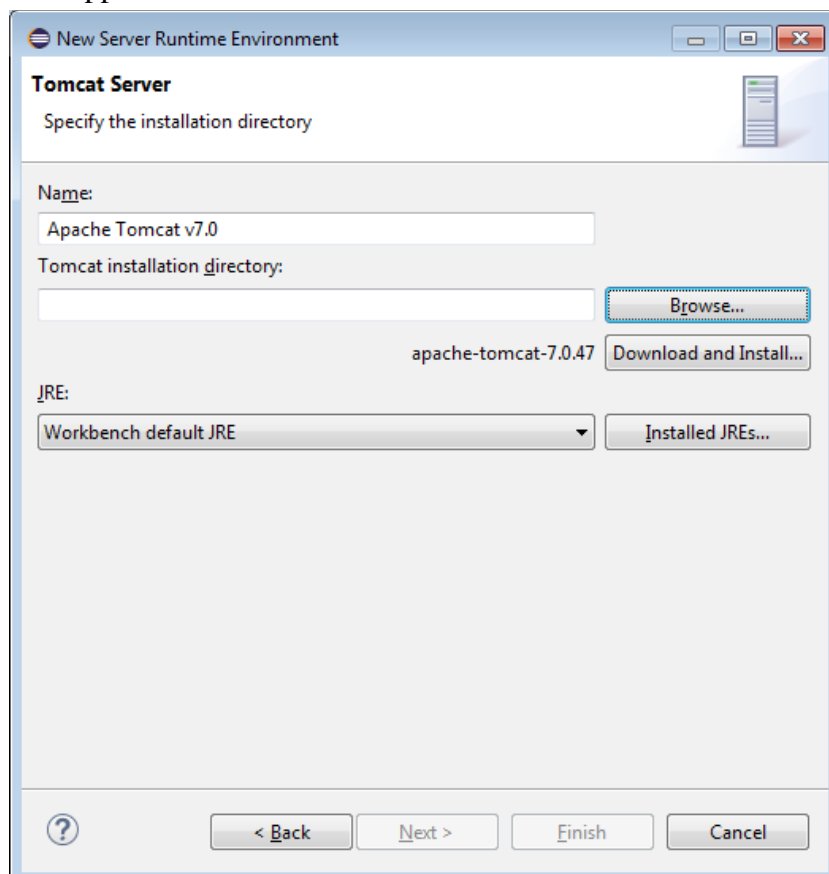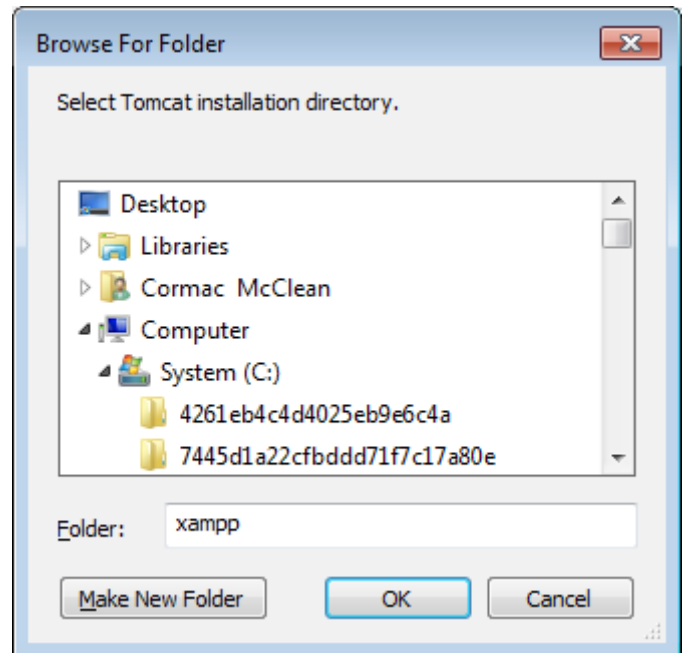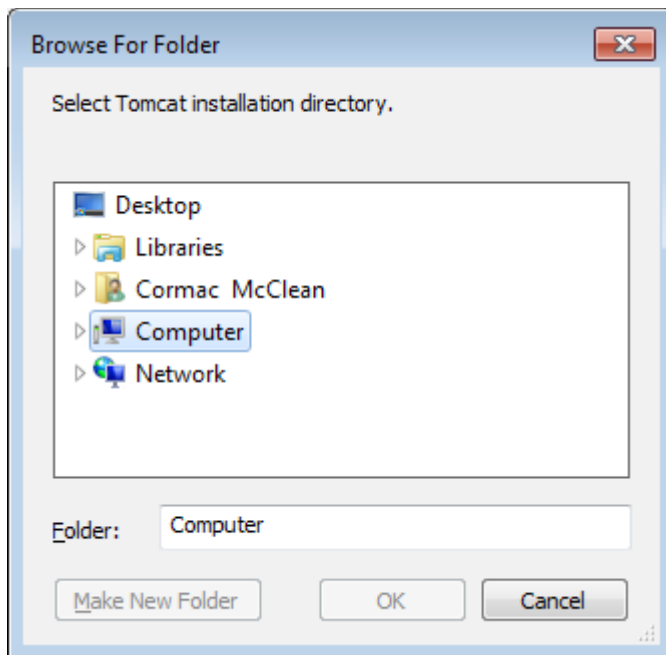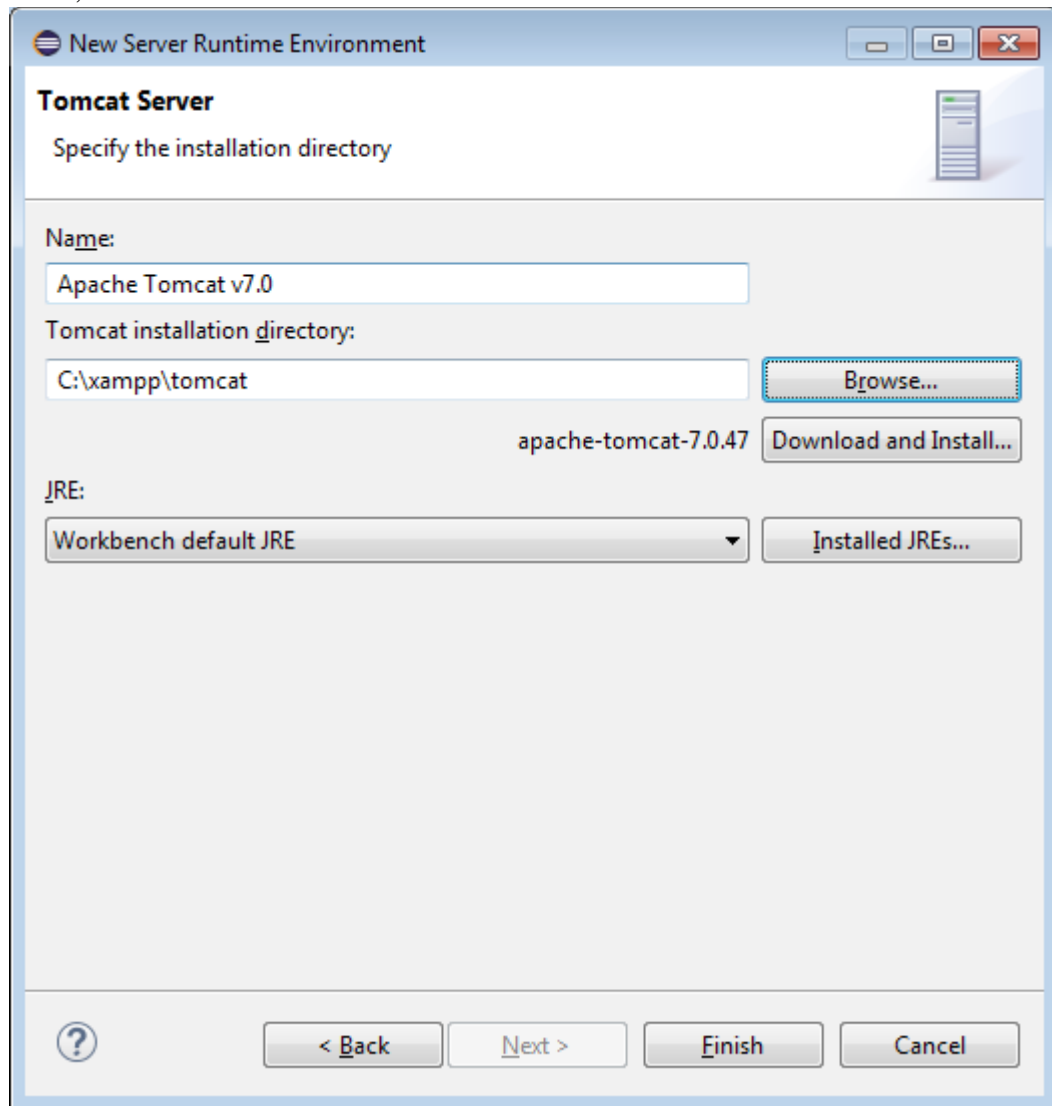

then C:\xampp\tomcat
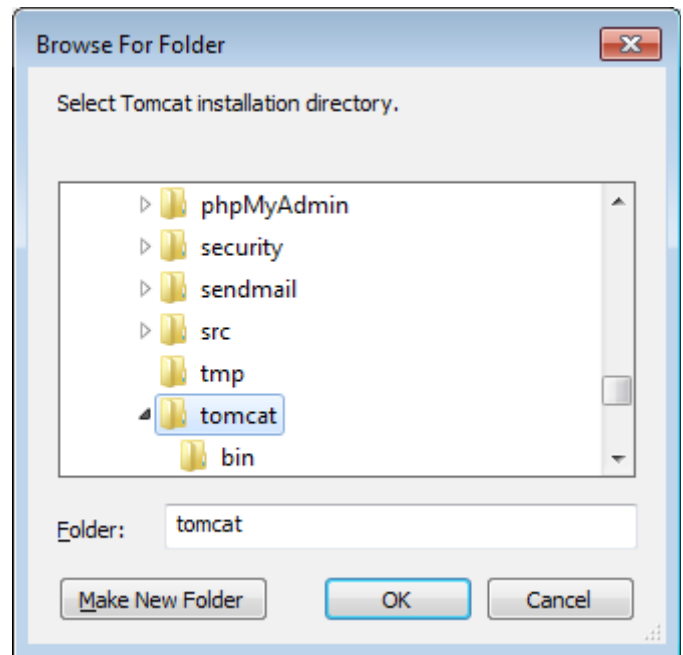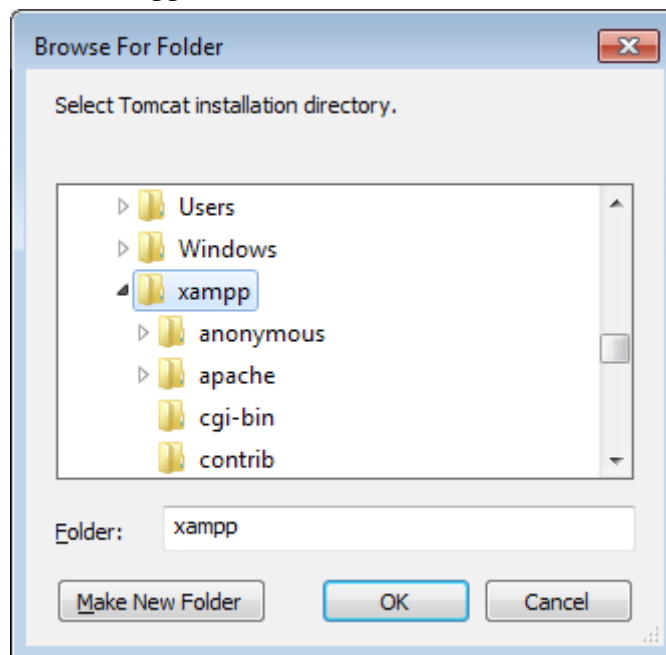
Click **OK**.

On the next screen,

click **Finish**.

To create a project that uses JSP, click **File** -> **New** -> **Other**
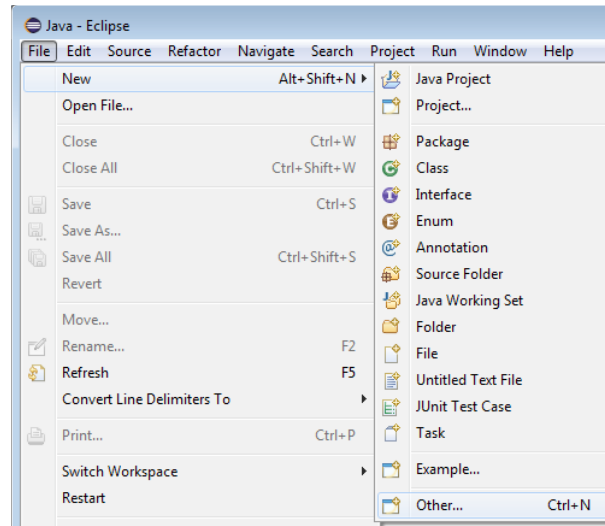
On the next screen select **Dynamic Web Project**:
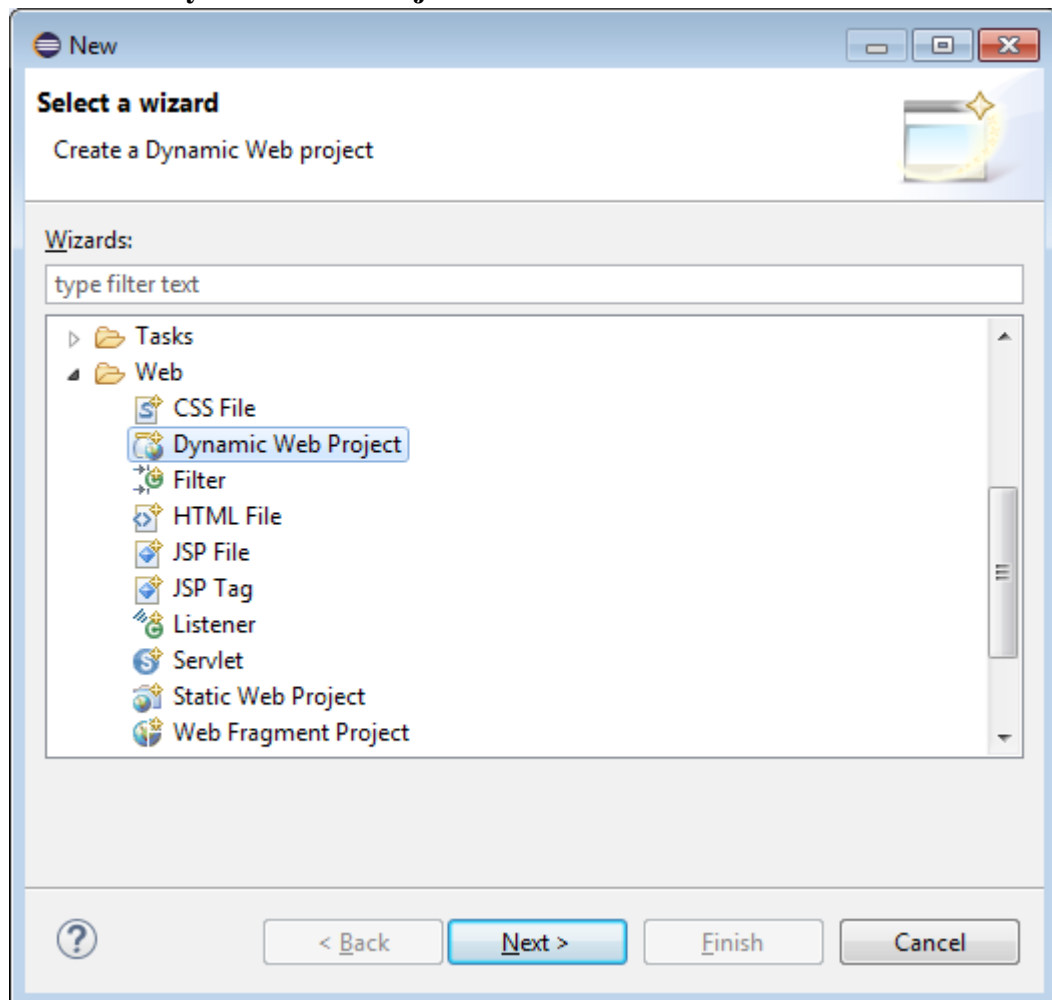
and click **Next**.

Enter the name of the project:

and click **Finish**.

The JSP project will appear on the left-hand side:
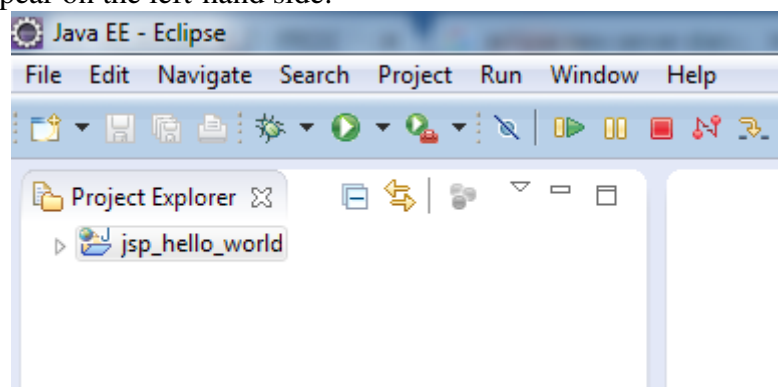
To create a JSP file, right-click on the project and select **New -> JSP File**:
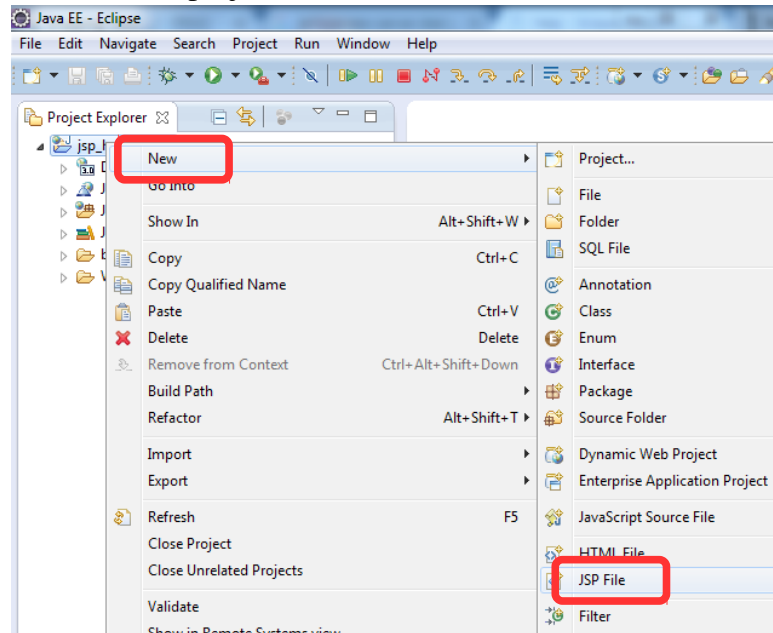
The following window appears:
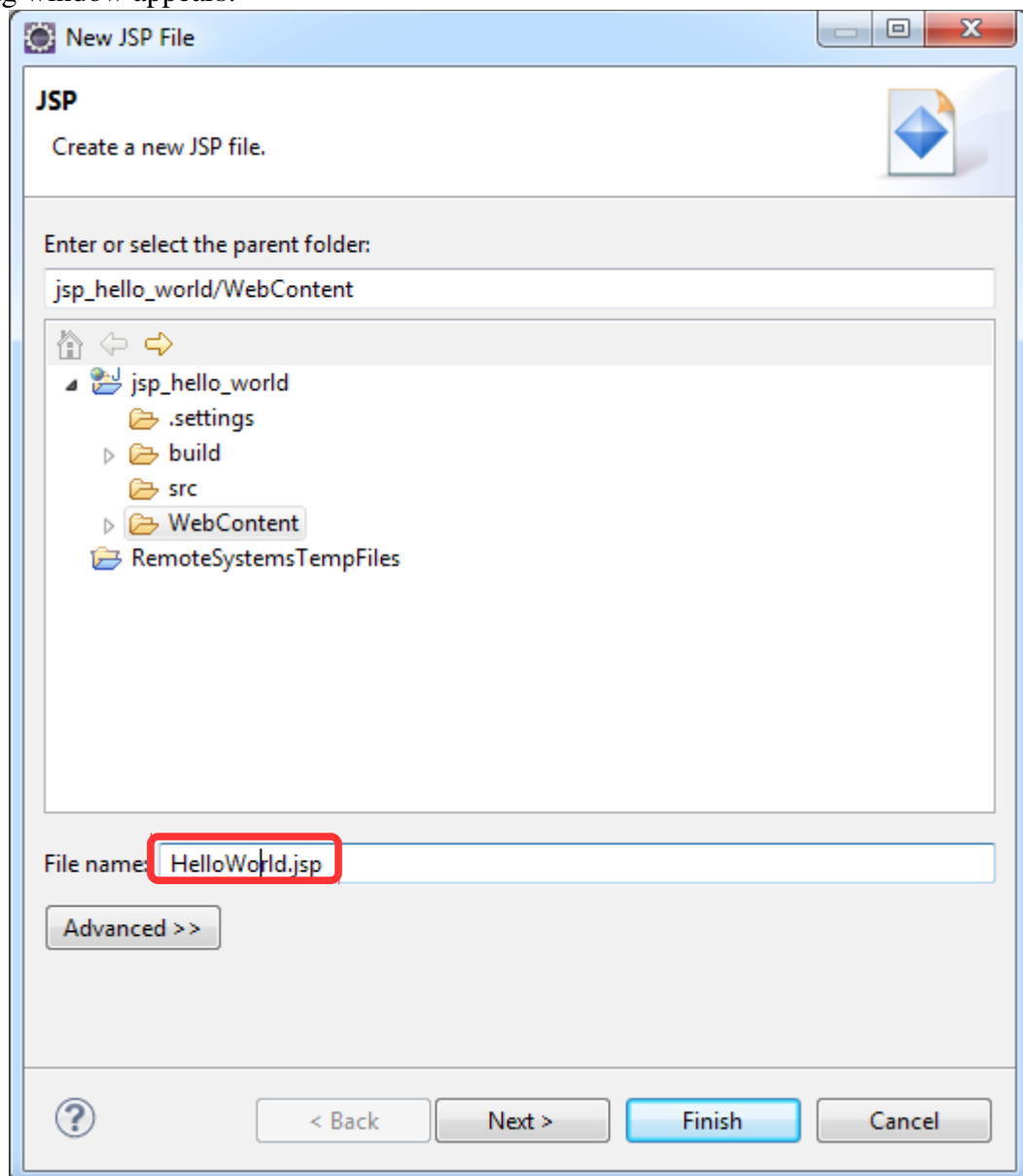
Enter the file name and click **Finish**.

A skeleton file will appear with default code.

```jsp
HelloWorld.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!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=ISO-8859-1">
<title>Insert title here</title>
</head>
<body>

</body>
</html>
```

Here's a sample "Hello World" file:

```jsp
*HelloWorld.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://ww
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Hello World</title>
</head>
<body>
Today is: <%= new java.util.Date().toString() %>
</body>
</html>
```

To run it, click on the *Run* button:

Run HelloWorld.jsp
Package Explorer

In the following window, click on **Always run this server when running this project**:
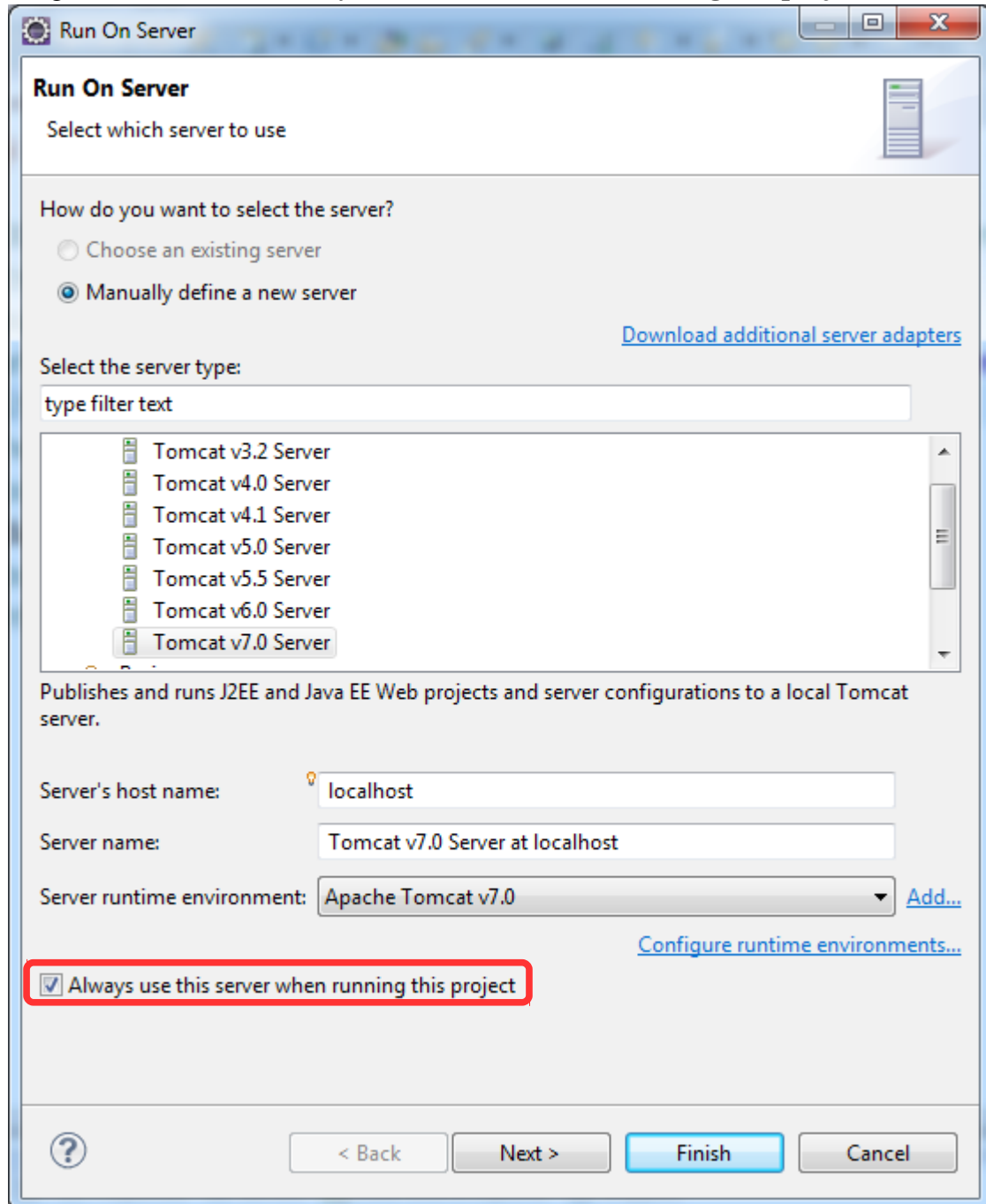
and click **Finish**.

The resulting output will appear in a new tab:

Today is: Thu Nov 09 13:32:25 GMT 2017

To create a HTML file, right-click on the project and select **New -> HTML File**:

In the next window, enter the file name:

and click **Finish**.

A skeleton file will appear:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="UTF-8">
5 <title>Insert title here</title>
6 </head>
7 <body>
8
9 </body>
10 </html>
```

Here's a html file with a form associated with a JSP file:

subscribe.html

```html
<!DOCTYPE html>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>Subscribe</title>
</head>
<body>
    <h1>Join our email list</h1>
    <p>To join our email list, enter your name and email address below. <br>
    Then, click on the Submit button.</p>

    <form action="subscribe.jsp" method="get">
        <label for="firstname">First name:</label>
        <input type="text" name="firstName"><br>
        <label for="lastname">Last name:</label>
        <input type="text" name="lastName"><br>
        <label for="emailAddress">Email address:</label>
        <input type="text" name="emailAddress"><br>
        <input type="submit" value="Submit">
    </form>
</body>
</html>
```

Here's how it looks:

subscribe.html   Subscribe

http://localhost:8080/jsp_hello_world/subscribe.html

Join our email list

To join our email list, enter your name and email address below.
Then, click on the Submit button.

First name: [   ]
Last name: [   ]
Email address: [   ]
[Submit]

Here's the JSP file:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/T
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Thank you for Subscribing!</title>
</head>
<body>
    <%
    // get parameters from the request
    String firstName = request.getParameter("firstName");
    String lastName = request.getParameter("lastName");
    String emailAddress = request.getParameter("emailAddress");
    %>

    <h1>Thanks for joining our email list</h1>
    <p>Here is the information that you entered:</p>

    <table cellspacing="5" cellpadding="5" border="1">
        <tr>
            <td align="right">First name:</td>
            <td><%= firstName %></td>
        </tr>
        <tr>
            <td align="right">Last name:</td>
            <td><%= lastName %></td>
        </tr>
            <tr><td align="right">Email address:</td>
            <td><%= emailAddress %></td>
        </tr>
    </table>

    <p>To enter another email address, click on the Back <br>
    button in your browser or the Return button shown <br>
    below.</p>

    <form action="subscribe.html" method="post">
        <input type="submit" value="Return">
    </form>

</body>
</html>
```
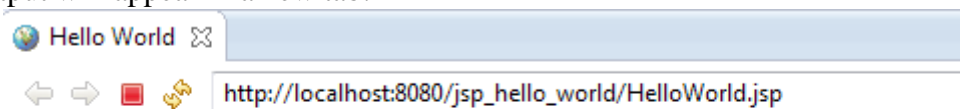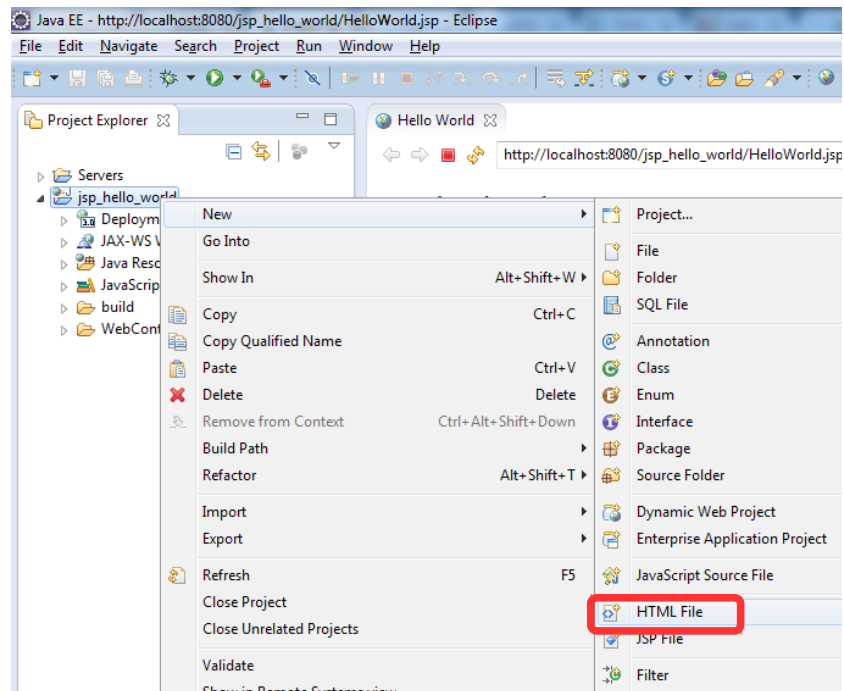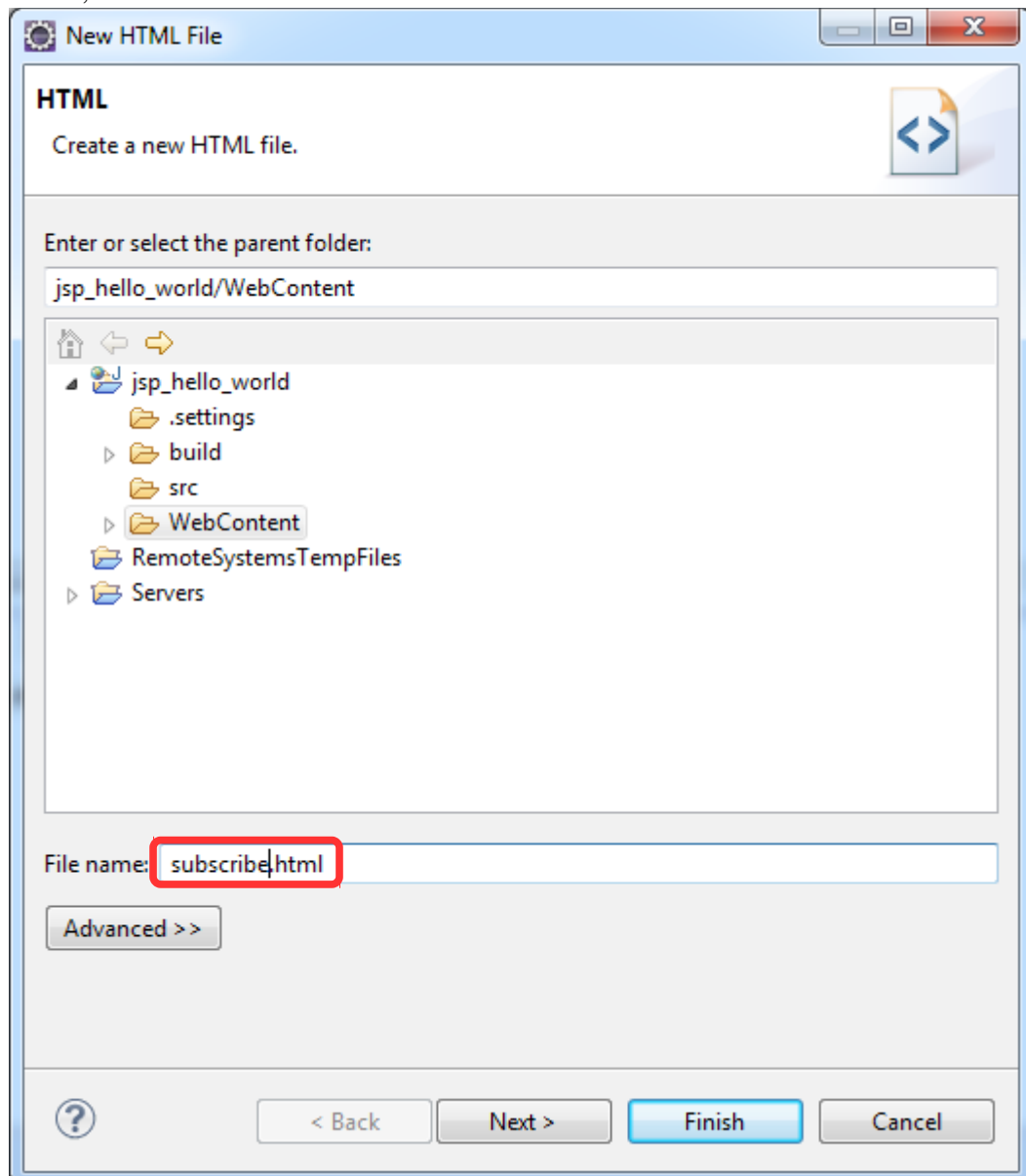
After running the HTML:

subscribe.html | Subscribe | subscribe.jsp

http://localhost:8080/jsp_hello_world/subscribe.html

Join our email list

To join our email list, enter your name and email address below.
Then, click on the Submit button.

First name: Joe
Last name: Bloggs
Email address: joe@bloggs.com
Submit

Click on Submit and the JSP file will execute: