Lab 3 – Create a Basic Servlet: Overview

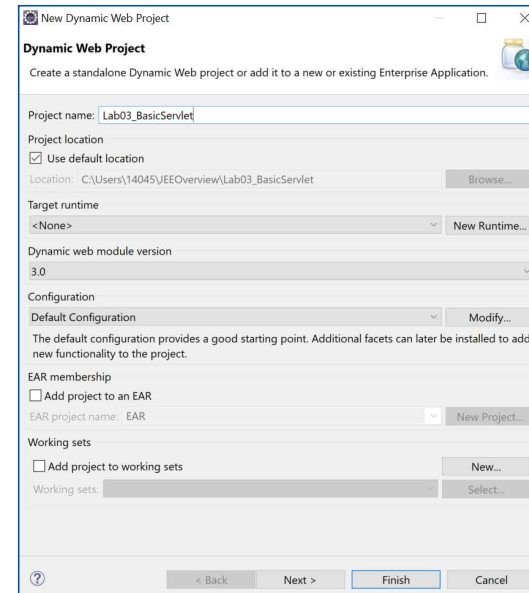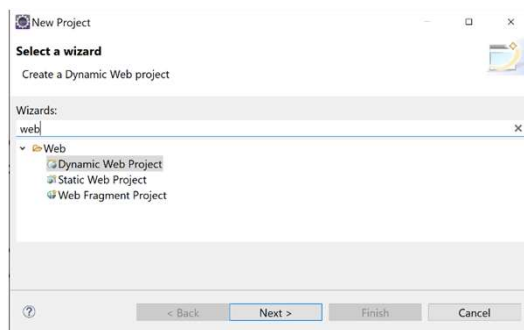**We will create a Web application that uses a servlet**

To get there the first time will require a number of setup steps

- After this lab, will be much less extensive
- With a little care and patience, it should be pretty easy

This can be done as a group with the instructor leading

Lab 3 – Create a Basic Servlet

- **Launch Eclipse, selecting a default workspace**
- **Create a new Dynamic Web Project**
  - Use the menu bar to select a new project (Files>New>Project…)
  - Search for Dynamic Web Project in the search bar, select the Dynamic Web Project and then "Next >"
  - Enter "Lab03_BasicServlet as the Project Name and then select "Finish >" [1]

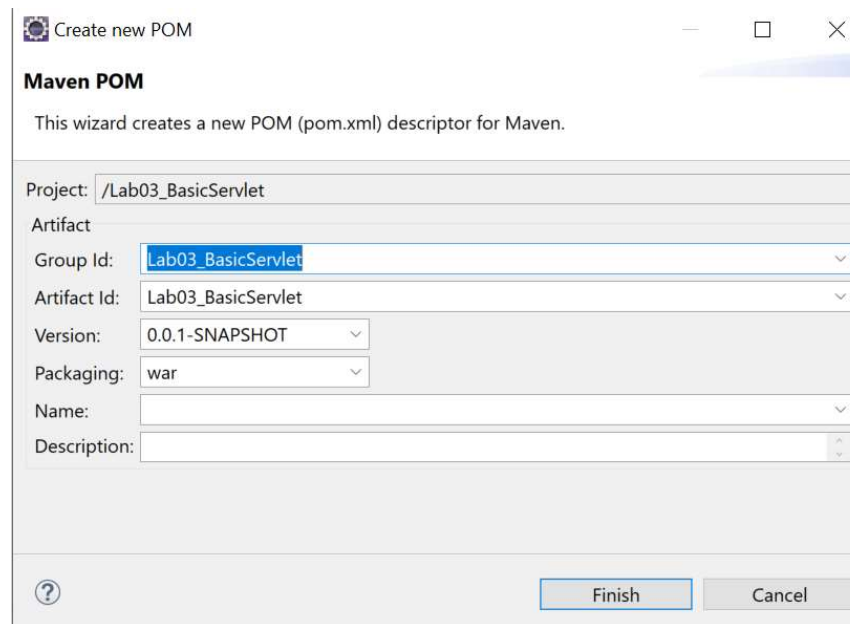 - Open the EE perspective if prompted (otherwise select Window>Perspective>Open Perspective>Java EE to open the EE perspective)

Lab 3 – Create a Basic Servlet

Convert the project to a Maven project

- Within the Project Explorer, configure the project as a Maven project (right click on the project> Configure>Convert to Maven Project)
- Within the Create new POM window, select Finish to convert the project

Lab 3 – Create a Basic Servlet

Add the Servlet API maven dependency to the pom.xml file

- Open the pom.xml file and add the following (immediately before the Build tag):

```
<dependencies>
        <dependency>
                <groupId>org.apache.tomcat</groupId>
                <artifactId>tomcat-servlet-api</artifactId>
                <version>9.0.1</version>
        </dependency>
</dependencies>
```
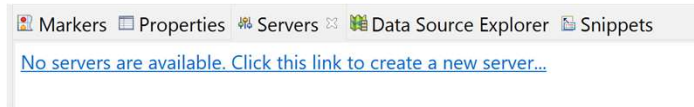
- Save the pom.xml file
- Update the Maven Project
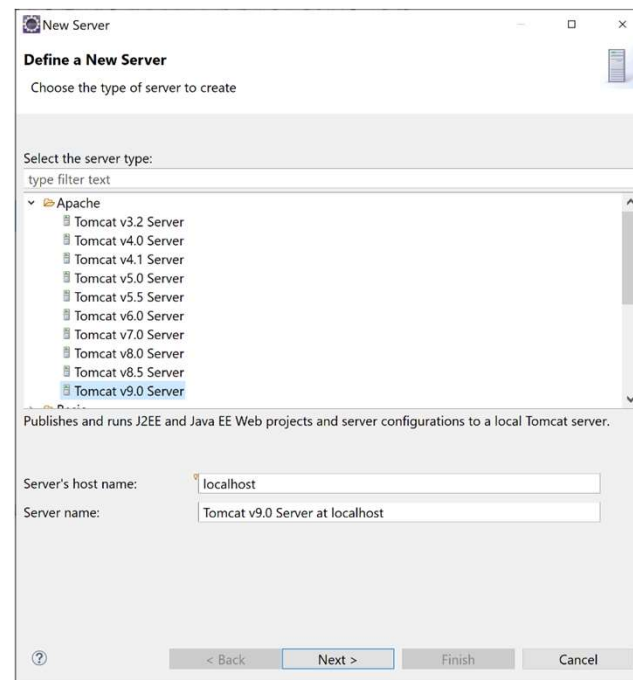 ✓ Within the Explorer window, right click on the project > Maven > Update Project

Lab 3 – Create a Basic Servlet

- **Add a Server**
  - Within the server tab, click on "Click this link to create a new server…" (if this window isn't visible, then use the menu bar to make it visible Window>Show Window>Servers…
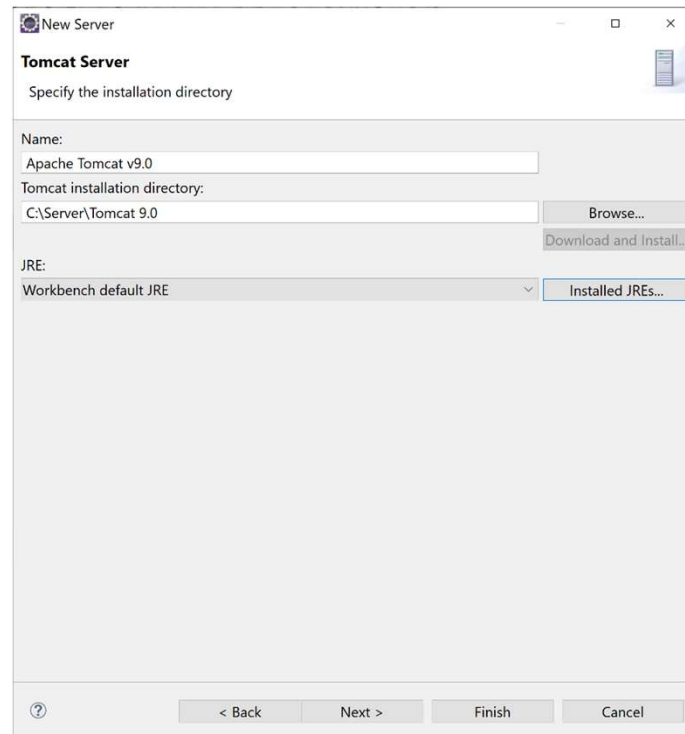

  - Within the New Server window, select Apache>Tome v9.0 Server and then select "Next >"

Lab 3 – Create a Basic Servlet

Add a Server

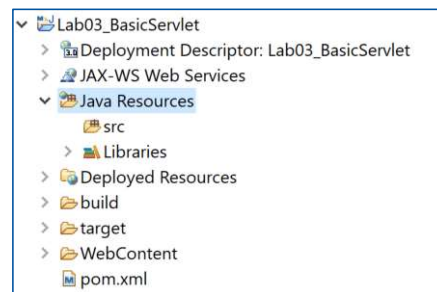- Within the New Server window, use Browse… to locate and set the Tomcat Installation directory [1]
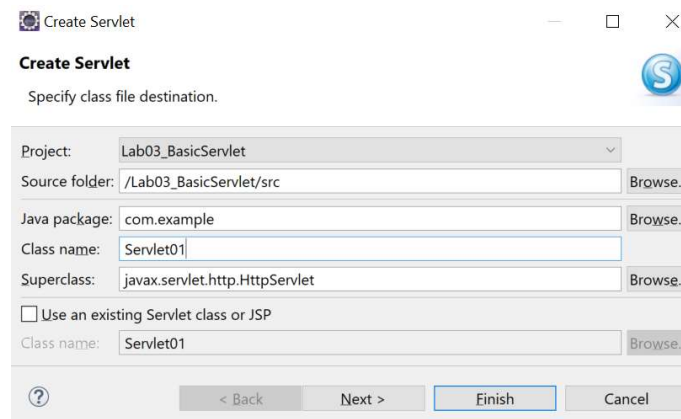- Select "Finish" to create the Tomcat Server

Lab 3 – Create a Basic Servlet

Create a Servlet

- Within the Project Explorer right click on the Java Resources, select New>Servlet

- Within the Create Servlet window enter a Java package name of "com.example", enter a Class name of "Servlet01", and then select "Finish"
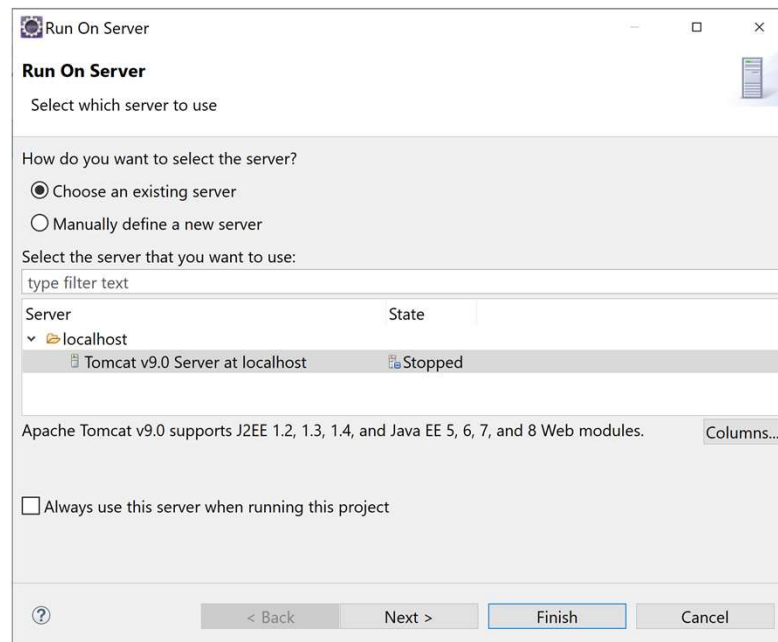
Lab 3 – Create a Basic Servlet

- **Use an external Web Browser**
  - On the menu bar select Window>Web Browser > Chrome if it exists or anything other than Internal Web Browser [1]
- **Run the Servlet on Tomcat**
  - Within the Project Explorer window, right click on the Servlet01.java file and select Run> Run As > Run on Server
  - Confirm that Tomcat v9.0 Server at localhost is selected and then select "Finish"

Lab 3 – Create a Basic Servlet

Confirm that something similar to the following is displayed in an external Web Browser

localhost:8080/Lab03_BasicServle ✕ +

← → C ⓘ localhost:8080/Lab03_BasicServlet/Servlet01

Served at: /Lab03_BasicServlet

STOP