

Part 1. Installation of Open JDK

Visit <https://adoptopenjdk.net> and choose your appropriate installer to install Open JDK 12 and Open J9. Do **not** choose the defaults, rather be sure to choose Open JDK12 and Open J9.

Installer instructions: <https://adoptopenjdk.net/installation.html#installers>

From the command line, `javac -version` and `java -version` should both report the version number as 12.

Part 2. Installation of IntelliJ IDEA Ultimate

Establish your student credentials with JetBrains for the free version of IntelliJ for educational use: <https://www.jetbrains.com/student/>. Download and install IntelliJ IDEA Ultimate.

Write a Java program that displays “Hello World”.

Part 3. Installation of TomEE+

Visit <http://tomee.apache.org/download-ng.html> and download the most recent version of **TomEE Plus** (Note: “Plus”, not “Plume”).

Copy the TomEE directory to an appropriate directory on your file system. The directory path should contain no spaces. Do not change the name of the TomEE Plus directory.

1. Open IntelliJ and create a new project.
2. Under Java/ Java EE /select Web Application
3. Select Next and name your project TestWebApp
4. Right click src and create a new servlet
5. Give it the name TestServlet in the package edu.cmu.andrew.yourAndrewID
6. Select OK
7. In the web.xml file, after the servlet element, create a servlet mapping element as shown here:

```
<servlet-mapping>
    <servlet-name>TestServlet</servlet-name>
    <url-pattern>/*</url-pattern>
</servlet-mapping>
```

8. Open the TestServlet in the src directory. Within the doGet method, add this line of code:

```
response.getWriter().append("Hello from TestServlet ");
```

9. Select Run/Edit Configurations/+ /TomEE Server/Local
10. Name the server MyTomEE
11. Select Configure
12. In TomEE text box, select the folder on the far right.
13. Select open after browsing to the apache-tomee-plus directory. Select OK.
14. Select Deployment and click Fix in the bottom right and then OK.
15. Select File/Project Structure/Project Settings/Libraries/+ /Java
16. Navigate to TomEE plus directory and select lib/apply/OK
17. Select the green Run triangle.
18. A browser runs and you should see Hello from TestServlet.