Classroom Setup Instructions
Java 8 / Eclipse Oxygen / Tomcat 8.5

Each student and the instructor shall have a workstation that fulfills the listed requirements.

It is a good idea to keep the downloaded software installation files available during the class. That makes it easier to reinstall something, should we need to.

The installation instructions specify that installs should be done to the C: drive. This is preferred, but if you must extract to another location, that should be fine. Just make sure it is accessible to students, and they know where the software has been installed.

The use of "cloning" software, such as Ghost, should incur no problems. Many sites use this technique, completely setting up one machine and cloning its image to all the other machines.

If you have any questions whatsoever, please do not hesitate to contact us. A completely set up classroom makes for a smooth-running class and a great hands-on learning experience for the students. We want the very best for our students and we want to make your classroom setup as smooth as possible. Thank you for your help with this.

HARDWARE

- **Required:** Intel compatible-based machine (any dual core processer is fine) running a modern version of Windows (e.g. Windows 7, 10 etc.)
  - Other environments (e.g. Mac OS) will work using compatible software
- **Required:** 4+ GB RAM recommended (depending on your OS needs)
- **Required:** Approximately 1 GB free hard disk space

- **Recommended:** Internet Access
- **Recommended:** The machines are networked together via TCP/IP.
  - This allows the students to access a shared network directory with the instructor.

OTHER EQUIPMENT

- **Required:** Self-contained/direct-display projector for instructor
  or Similar presentation equipment

- **Required:** Whiteboard, chalkboard, or similar presentation equipment for instructor.

- **Recommended:** Easel stand with large paper, for making posters and other activities.

See Software Installs below ➔

SOFTWARE Installs (See below for download instructions)

- **Student Lab Files**

  - **Install:** Student lab zips must be made available on each workstation used in the course. The download link for this should be included in the e-mail accompanying this document. You can just place them on the workstations where they are visible and accessible to the student.

- **Java 8**

  - **Install:** These instructions assume version 1.8.0_181, but any Java 8 version should work. If you use a different version, file and directory names will be different.
  - Double click on install file – (e.g. 64 bit: **jdk-8u181-windows-x64.exe** or 32 bit: **jdk-8u181-windows-i586.exe**) to start the install. Install into the default installation directory: - e.g. **`C:\Program Files\Java\jdk1.8.0_181`** - Include all components in the installation, including the JRE.

  - **Important Note**: Make sure that the architecture version you install (32 bit or 64 bit) matches the Eclipse architecture version.

  - **NOTE:** Only one version of Java should be installed.

- **Eclipse JEE IDE.** The labs are worked on and deployed with Eclipse Java EE edition. Instructions below are for the Java EE 4.7.3a/Oxygen version, but almost any relatively recent edition (**Luna/4.4 version or later**) will work

  - **Install:** With a zip utility, open the install file - e.g. **eclipse-jee-oxygen-3a-win32-x86_64.zip** (64 bit). Extract the zip file to C:\. This will create a directory where Eclipse is installed.
  - Nothing else needs to be done to install Eclipse, though you can copy a shortcut from C:\eclipse\eclipse.exe to the desktop to make starting Eclipse easier

  - **Important Note**: Make sure that the architecture version you install (32 bit or 64 bit) matches the JDK architecture version.

- **Apache Tomcat**. Tomcat is the reference implementation of the Servlet and JSP specifications – developed under The Apache Software Foundation. The easiest version to use is the latest stable 8.5.x release (8.5.33 when this document was created). If you use a different version, the install file names will change accordingly.

  - Using a zip utility, open the install file (e.g. **`apache-tomcat-8.5.33.zip`**) and extract all files into **`C:\`**.

Browser Setup

- Recent editions of any **one** of the Web browsers listed below.

- Firefox (http://www.mozilla.com for download)
- Chrome (http://www.google.com/chrome/browser for download)
- Microsoft Internet Explorer. http://www.microsoft.com/ie

- **Zip utility**. Install as you usually do.

- **Adobe Acrobat Reader**: Install as you usually do

SOFTWARE Downloads

- **Java 8 (JDK 8.x)**.

Download: Go to http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html. Accept the license agreement, find your platform (e.g. Windows 86) and click on the link to download it, then download the installer file for your platform.

- If the above link doesn't work, try: http://www.oracle.com/technetwork/java/javase/downloads/index.html

- **Important Note**: Make sure that the architecture version you install (32 bit or 64 bit) matches the Eclipse architecture version.

- **Eclipse IDE Download:** Go to http://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/oxygen3a. On the "Download Links" section on the right hand side, click on the link for the your platform (e.g. Windows 64-bit). Save the zip file to your disk.

- **Important Note**: Make sure that the architecture version you install for Eclipse (32 bit or 64 bit) matches the Java JDK architecture version.

- **Tomcat: Download**. You need to download **`apache-tomcat-XXX.zip`**, where ***`xxx`*** is the latest stable (i.e. non-beta) version of Tomcat 8.5, e.g., **`apache-tomcat-8.5.33.zip.`**
  - To download, go to: https://tomcat.apache.org/download-80.cgi

  - On that page, go to the "Binary Distributions" section for Tomcat 8.5, and download the "core" zip file for the current version (e.g. apache-tomcat-8.5.33.zip).

- **7-zip** (open source zip utility)**:** http://www.7-zip.org/

- **Adobe Acrobat Reader**: http://get.adobe.com/reader/