

Waukesha County Technical Institute

152-198 Distributed Java

Class 1 Plan and Assignments

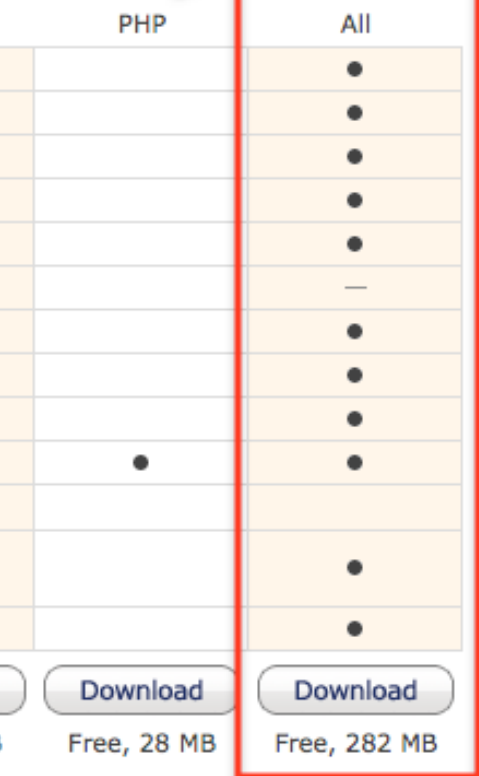
Discussion Activities:

- Welcome and Introductions
- About this Course: See Welcome1.pdf on Blackboard
- Course Syllabus
- **How to contact your instructor**
 - ✓ Email is preferred ... use your student email account only (college policy)
 - ✓ Identify yourself using your full name
 - ✓ Identify your class and class day of week (e.g. Monday Distributed Java) that's relevant to your question.
 - ✓ Be courteous, professional and provide details. Don't expect detailed troubleshooting of code via email. That's what labs are for. Don't email code. Use GitHub. Use professional communication, including spelling and grammar – no IM chat language, e.g., LOL
 - ✓ Always notify your instructor in advance, if possible, if you are going to be late or can't attend class (courtesy!)
 - ✓ **Your email will be ignored if you fail to follow this policy.**
 - ✓ **Missed classes or arriving late will result in lost points for the time missed – even if you have a good excuse. Remember, you still missed out on the class participation, lab and group activity.**
- **Review of Git and GitHub.** You should have a GitHub account from previous class work in Advanced Java. If you do not have one or cannot remember the one you have you must create a new one NOW. Your instructor will pass around a sheet where you will enter your real name and GitHub user name. Please print clearly and accurately! Remember, all course work (except for tests) MUST be pushed to GitHub by the due date to be counted.
- **What to do Immediately Upon Arriving to Class**
 - Startup your computer – it is STRONGLY recommended that you bring your own laptop and use that instead of our lab computers.
 - Log in to Blackboard
 - Lesson Plans, samples and other supplemental material: **everything you need, for every class, will be posted in advance under “Course Materials” on Blackboard. This includes assignments and due dates. Please read carefully.**
 - Check your grades and let your instructor know if there are any issues.
 - Open the Java SE API in your web browser:
<http://docs.oracle.com/javase/8/docs/api/>

- Open the Java EE API in your web browser:
<http://docs.oracle.com/javaee/7/api/>
- Start Netbeans and load any sample programs or assignments planned for the current class
- WCTC printing procedures. **Print any material required for a class BEFORE you get to class.** Using class time for this is wasteful and will not be tolerated.
- **Software Tools Used in this Class: MUST DO IN THIS ORDER:**
 1. Unless you already have the latest version of JDK 8.0 (Update 144 as of this writing) or later installed you must first download and install the latest version of Java JDK 8 (note this is the JDK, not the JRE. DO NOT USE JRE). Get it here:
(<http://www.oracle.com/technetwork/java/javase/downloads/index.html>).
To install just run the installer. Note that you do not need to remove older versions of the JDK. Multiple JDK installs can coexist on the same machine. But the environment variable described below must point to the one you are going to use.
 2. Next you should set up a Java System environment variable. See this YouTube video if you need help: <http://youtu.be/1cFtHjbNeEc> . Note: on Apple Macs the installer will set this automatically.
 3. Next, after first installing and configuring the JDK then install the Netbeans IDE (If you have previous version of Netbeans, please uninstall that first): <http://www.netbeans.org> – download version 8.2, get the ALL configuration. Using this for homework is mandatory. No programming assignments will be accepted if not in Netbeans project format. When you run the installation wizard look for a button labeled “Options” or “Customize”. Click it and make sure both Glassfish 4 and Tomcat are selected.

NOTE: if you have an older version of Netbeans, please uninstall it and all of its components first, before installing this new version.

NetBeans IDE Download Bundles



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IB	Download Free, 178 MB	Download Free, 85 MB	Download Free, 33 MB	Download Free, 28 MB	Download Free, 282 MB

Just run the installer wizard and accept all default values. Once installed, start the program to verify it works. Next, go to Tools > Plugins and check for updates. You may need to do this several times until there are no more updates to install. Always keep current with updates.

4. Make sure you download and install JUnit when asked.
5. Now you're done! Start Netbeans and verify it works.
6. Finally, verify everything has been installed correctly. If anything is not installed correctly, uninstall Netbeans and start over, re-reading the directions above.
 - Goto the "Tools > Servers" menu in Netbeans. A dialog box will open. Make sure both Glassfish and Tomcat appear as servers that are installed.

- **Introduction to Client-server communication on the Web: requests and responses:**

1. See <http://bit.glassfish.wctc.edu/Jee7Tutorials>
2. Client is usually your web browser
3. Server is the web application server, or the web server. Discuss differences between *web servers* and *web application servers*.
4. Demonstrate what happens with your web pages if you don't have a web server.

5. Client makes a request for a page. Server responds by executing server side code if any, weaving the results into the html on that page if necessary, and sending back the html to the client.
6. The client (web browser) interprets this code and draws the screen that you see.
7. All web applications, whether written in ASP.Net, PHP, Java, Ruby on Rails or others, work the same way.

Lab Activities:

- Demos:
 - Samples of commercial web apps written in Java and other languages
 - Time-permitting ... sample for next class: “FirstWebApp”

Textbook Chapters (and other resources) covered:

- Java SE API (v1.8): <http://docs.oracle.com/javase/8/docs/api/>
- Java EE v1.7 tutorial: <https://docs.oracle.com/javaee/7/tutorial/>
- Java EE API (v1.7): <http://docs.oracle.com/javaee/7/api/>

Preparation Work for Next Class – 2 points for completing work on time.

- Prepare your homework environment by getting software installed and your GitHub account ready to use by next class.
- In your text book: read the **Introduction** thoroughly and carefully, there will be quiz.
- In your text book skim over Chapter 1, pages 1-15. There is a HUGE amount of information here, but you do not need to absorb it all right now. The intent is to just give you a feel for the broad capabilities of the Java Enterprise Edition. However, you must choose one topic found in this reading material that interests you enough to research it and make a brief, 5 minute presentation to the class. The presentation will be due next class, but you must declare your topic at our next class.
- Create your resume using HTML and some CSS, and bring the code to class. You will demo this code to your instructor. Use the Netbeans project wizard to create a “Java Web” project of type “Web Application”. You will be given a home page named “index.jsp” – use this as your home page and create the necessary html and css. If you need more pages, use the “New...” wizard in Netbeans to do so. When done, make sure your project is Git enabled and push it to your GitHub account.