CST-361 Tools Install Guide

Note: Students need to have a reliable high-speed Internet connection for installation, and at least 8GB RAM to run this software.

Directions: This class will leverage the EclipseEE IDE and the Wildfly enterprise application server running with Oracle JDK 8. These tools will each be installed per the instructions in this Tools Install Guide. We will also be using GIT as a source code repository. Use the following steps to install each of the tools.

Oracle JDK 8 (Appendix A)

Download and install the Oracle JDK per the instructions in Appendix A.

You **must uninstall ALL non JDK 8 and **DO NOT** use **a version other than Wildfly 13.0****

EclipseEE IDE

Download and install the EclipseEE IDE:

- Download and install the EclipseEE IDE for your platform:
  - Select EclipseEE IDE link provided in Course Materials.
  - Click on the Eclipse icon under the Desktop IDEs section.
  - Click on the Other Packages button.
  - Download the Eclipse IDE for Enterprise Java Developers for your operating system.
  - Unzip or open the DMG downloaded file and copy the contents to a desired location where you install your tools.

Install Wildfly Server (Appendix B)

Start the EclipseEE IDE and create a default workspace as prompted.

- Click on the Servers tab and the click the new server link.
- Filter on JBoss in the server type. Select the JBoss AS, Wildfly & EAP Server Tools, click the Next button, select Accept Terms, and click the Finish button. You will be prompted to restart the EclipseEE IDE and you need to follow this step.
- Click again on the Servers tab and the click the new server link.
- Filter on Wildfly in the server type. Select the Wildfly 13 option, click the Next button, click the Next button, click the Download and Install Runtime link, follow the Wizard install instructions and make sure to browse and set the desired location for your tools for the JBoss Wildfly server, set the Home Directory where the JBoss Wildfly server was installed, and make sure the JavaSE01.8 Execution Environment is selected. Wait until the download and installation of the Wildfly server is complete. Once complete there should be a Wildlfy server listed in your Servers tab.

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- NOTE: if for some reason the Download and Install Runtime link does not work then you can manually download the Wildfly 13.0.0.Final server from the Wildfly link provided in Course Materials and in the EclipseEE New Server dialog simply set the Home Directory where the JBoss Wildfly server was installed.

Validate Environment and Tools (Appendix C)

- Start the EclipseEE IDE and create a default workspace as prompted.
- Select File->New->Dynamic Web Project menu options, name your project 'helloworld' (without the quotes), select the Wildfly 13.0 Runtime, Dynamic Web Module version of 4.0, and click the Next button twice, check the 'Generate web.xml deployment descriptor' option, and click the Finish button.
- Highlight the 'helloworld' project and right click on the project, select the New->Servlet menu options, in the Create Servlet dialog enter a Class name of 'HelloWorld' (without the quotes), and click the Finish button.
- Right click on the project and click on the Run on Server option, chose the Wildfly server, click the Finish button.
- Start the Wildfly server by selecting Wildfly server from your Servers tab, and click the the run icon.
- Use the internal EclipseEE browser or an external browser to access the application by going to the following URL and validate the following response was displayed back in the browser: http://localhost:8080/helloworld/HelloWorld

NOTE: In order to get auto-deployment to work properly, the EclipseEE IDE requires you to update the Wildfly configuration file. This can be done as follows:

- Go the Servers tab within your Project Workspace.
- Expand the Wildfly Server display the Filesets tree.
- Expand the Configuration File tree, right click on the standalone.xml file, and select the Edit File menu option. Select the Source tab in the editor.
- Locate the 'jboss:domain:deployment-scanner subsystem.
- Add the option auto-deploy-zipped="false" as an XML attribute to the deployment-scanner setting.
- Add the option auto-deploy-exploded="true" as an XML attribute to the deployment scanner setting. NOTE: be careful cutting and pasting text from a Word document into code or XML. You should paste into a plain text editor and validate no strange characters are being pasted into the code or XML. See screenshot below.
- Save changes and close the configuration file.

- Restart the Wildfly server.
- To validate this is working properly, start the Wildfly server. Make a change and save the change to one of the Java files in the project. You should see that the war file was redeployed by monitoring the Console tab.

NOTE: To install xhtml files, see Appendix B Below.

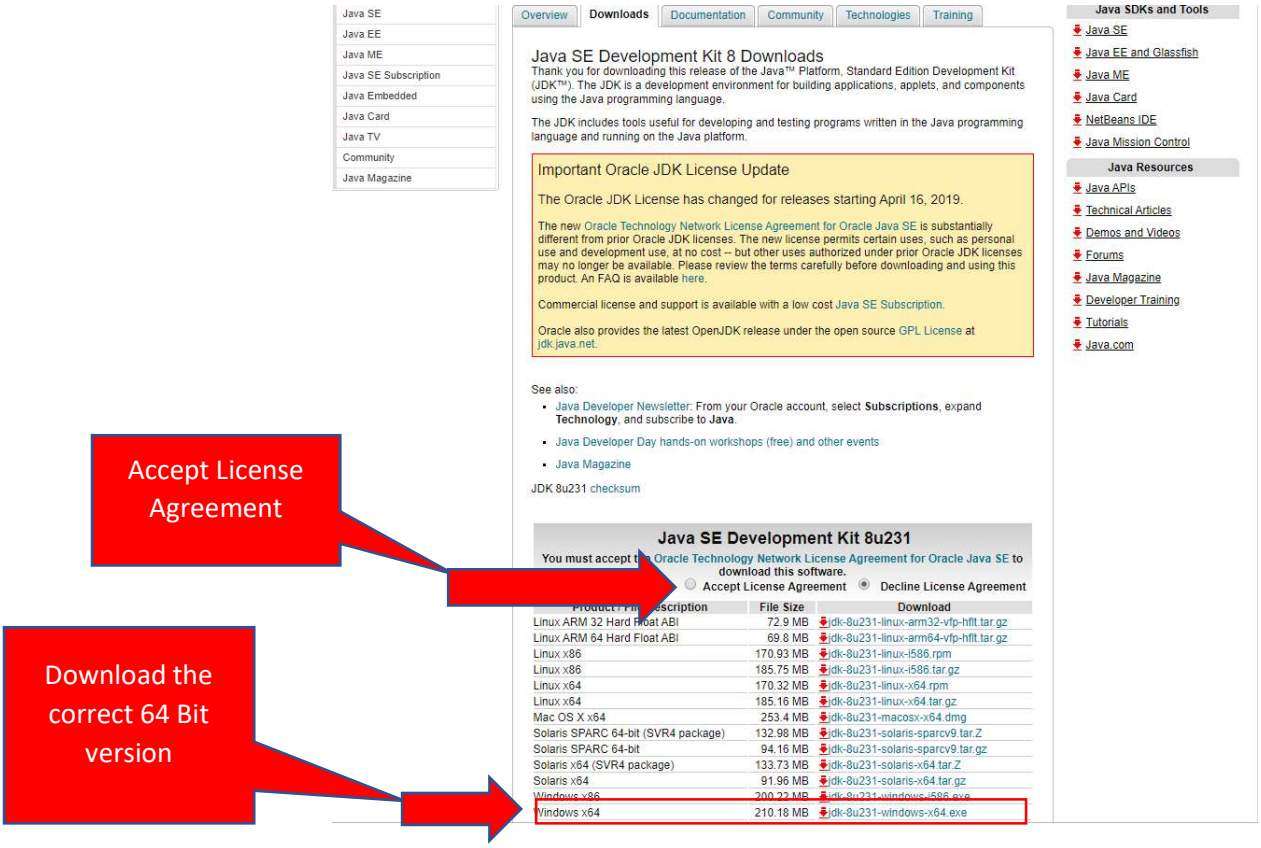
Install GIT Client

The SourceTree GIT Client will be used for this class. Access to, and additional information for resources, may be found on the Course Materials Support page in the Student Success Center.

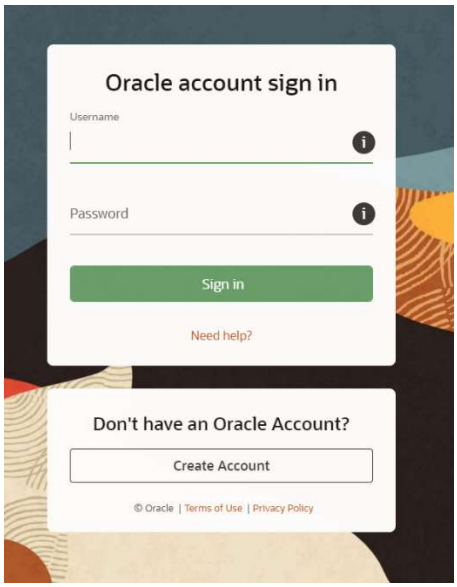
Be sure to download or update to the version specified by your instructor.

Appendix A

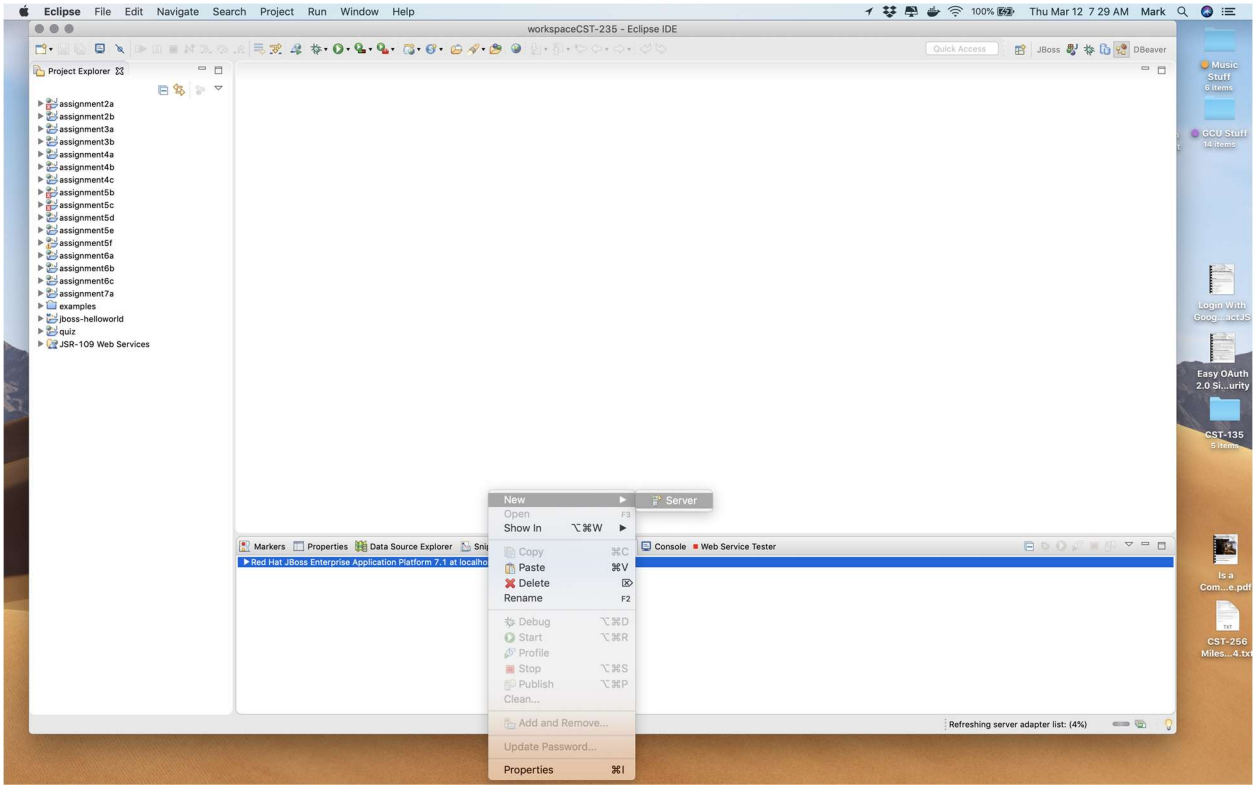
1. Go to https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html to download the JDK.
2. Select the appropriate install.

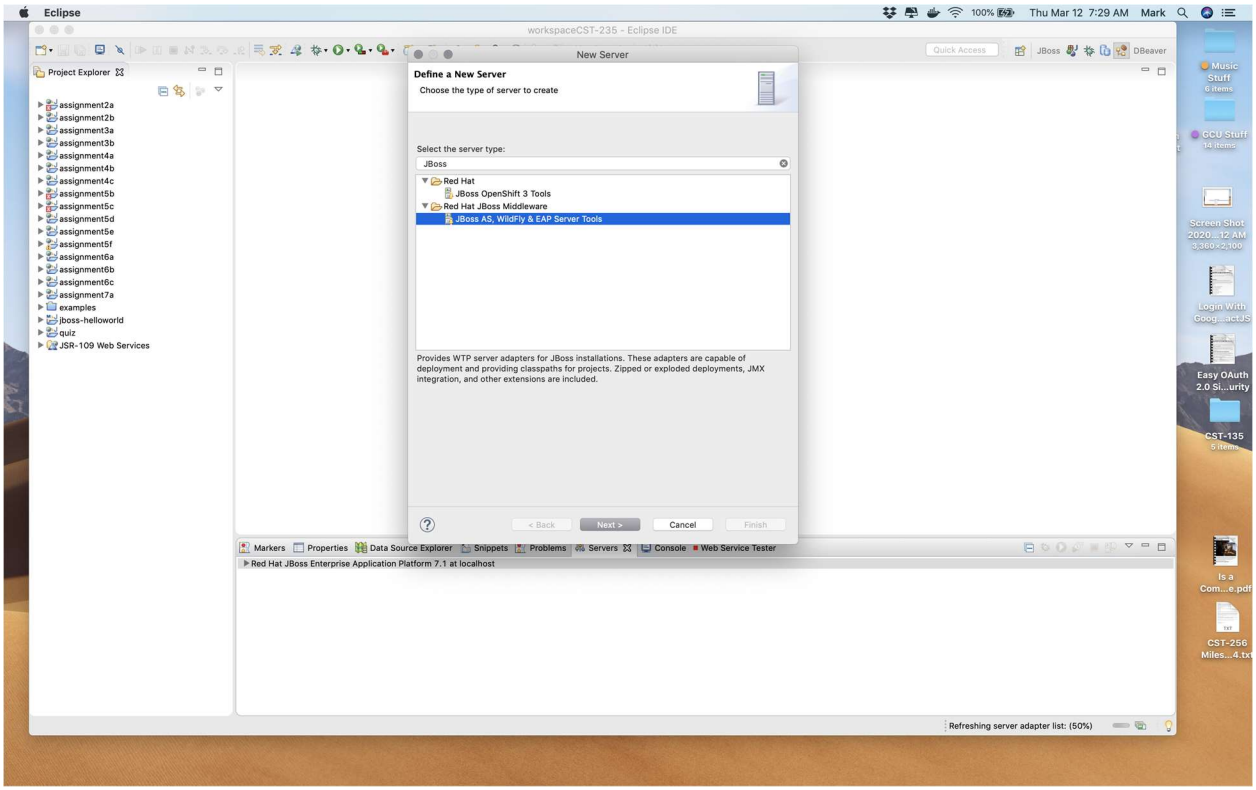


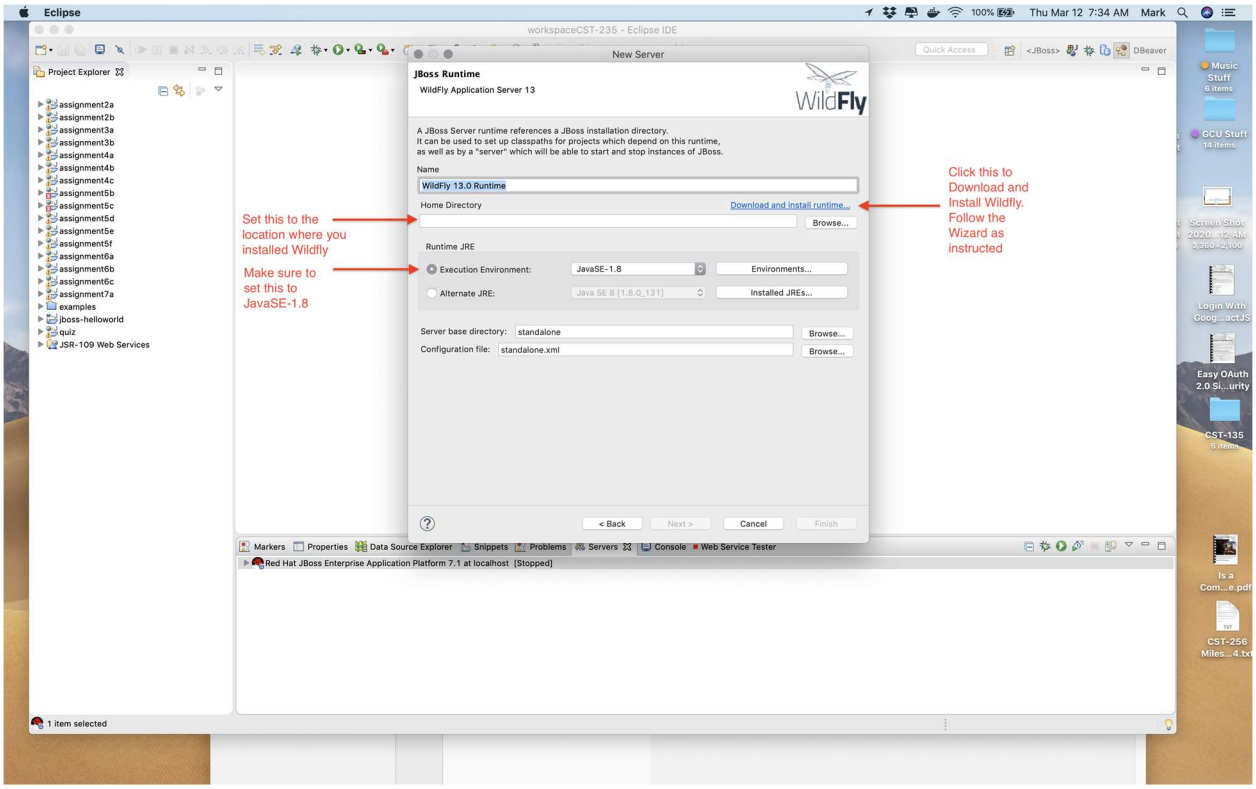
3. Register with Oracle and download.



APPENDIX B

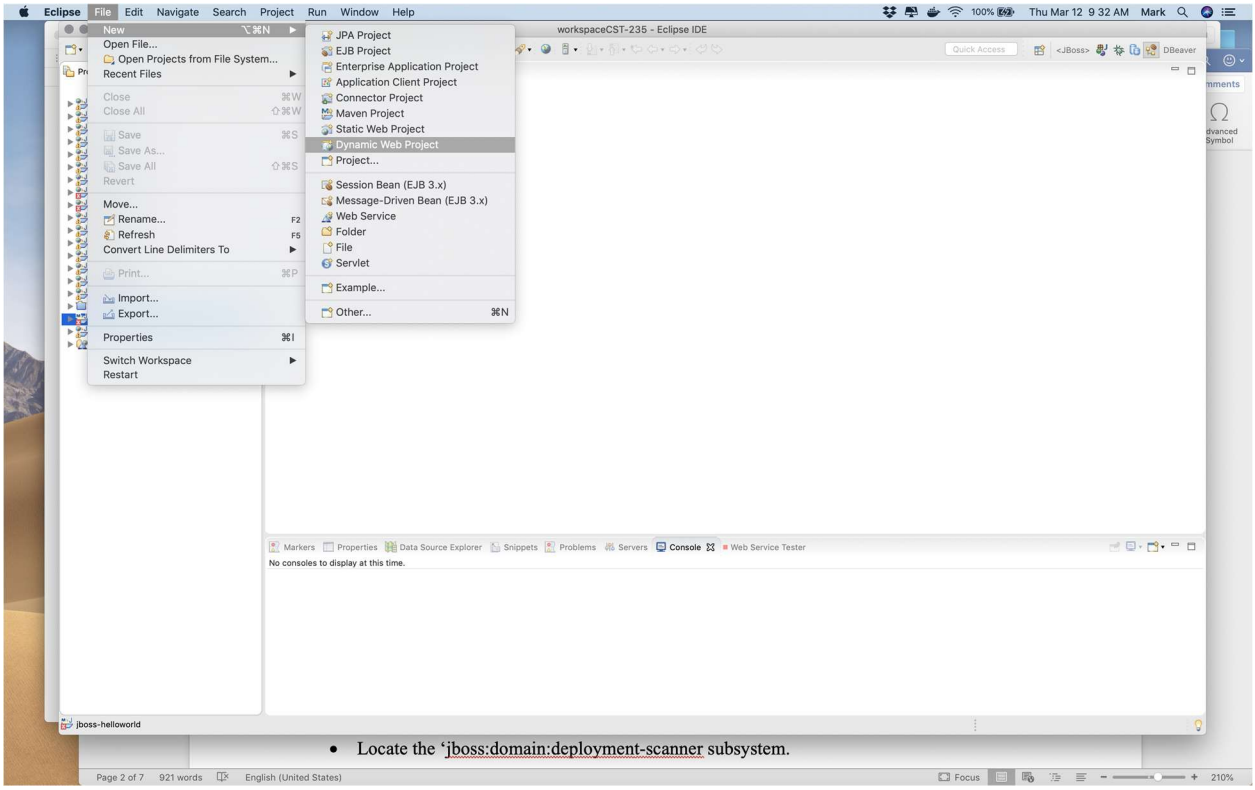

Eclipse File Edit Navigate Search Project Run Window Help
workspaceCST-235 - Eclipse IDE
Project Explorer
assignment2a
assignment2b
assignment3a
assignment3b
assignment4a
assignment4b
assignment4c
assignment5b
assignment5c
assignment5d
assignment5e
assignment5f
assignment6a
assignment6b
assignment6c
assignment7a
examples
jboss-helloworld
quiz
JSR-109 Web Services
New
Open
Show In
Copy
Paste
Delete
Rename
Debug
Start
Profile
Stop
Publish
Clean...
Add and Remove...
Update Password...
Properties
Server
Markers
Properties
Data Source Explorer
Console
Web Service Tester
Red Hat JBoss Enterprise Application Platform 7.1 at localho
Refreshing server adapter list: (4%)

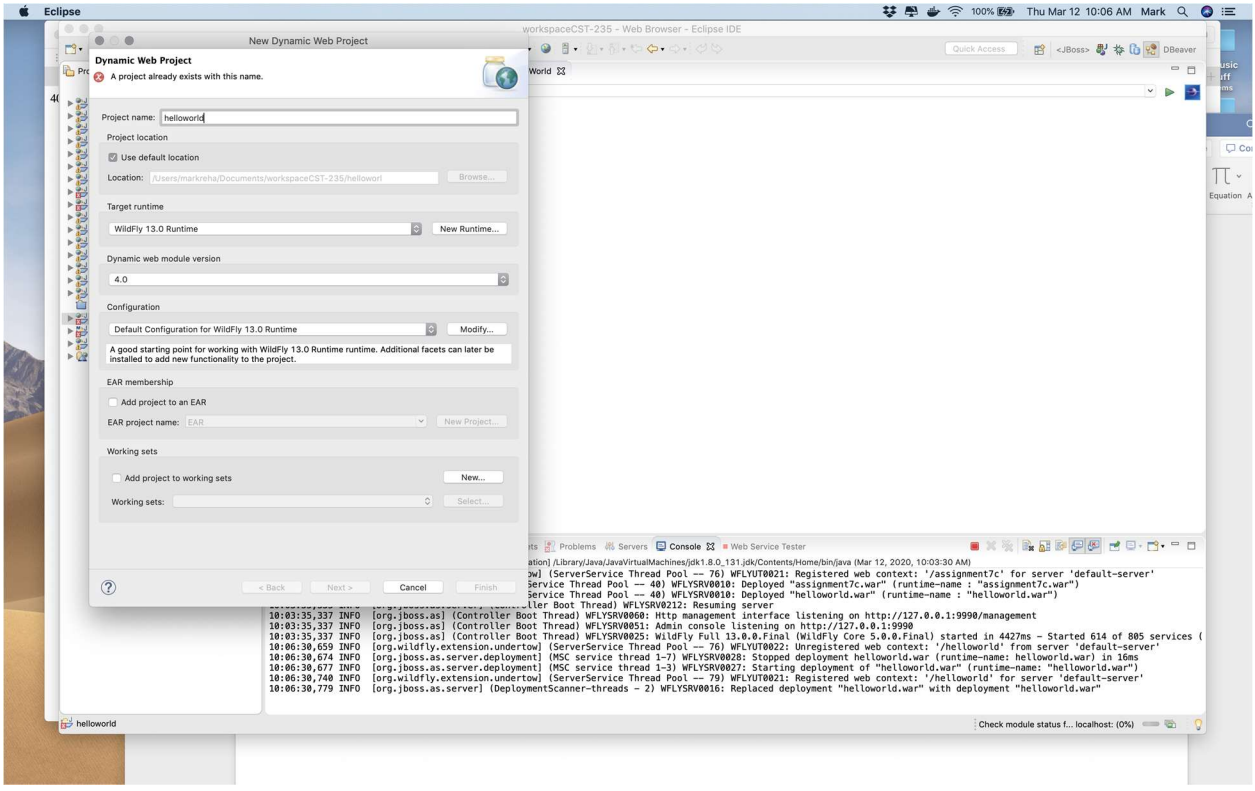

Eclipse
workspaceCST-235 - Eclipse IDE
New Server
Define a New Server
Choose the type of server to create
Select the server type:
JBoss
Red Hat
JBoss OpenShift 3 Tools
Red Hat JBoss Middleware
JBoss AS, WildFly & EAP Server Tools
Provides WTP server adapters for JBoss installations. These adapters are capable of deployment and providing classpaths for projects. Zipped or exploded deployments, JMX integration, and other extensions are included.
< Back
Next >
Cancel
Finish
Markers
Properties
Data Source Explorer
Snippets
Problems
Servers
Console
Web Service Tester
Red Hat JBoss Enterprise Application Platform 7.1 at localhost
Refreshing server adapter list: (50%)

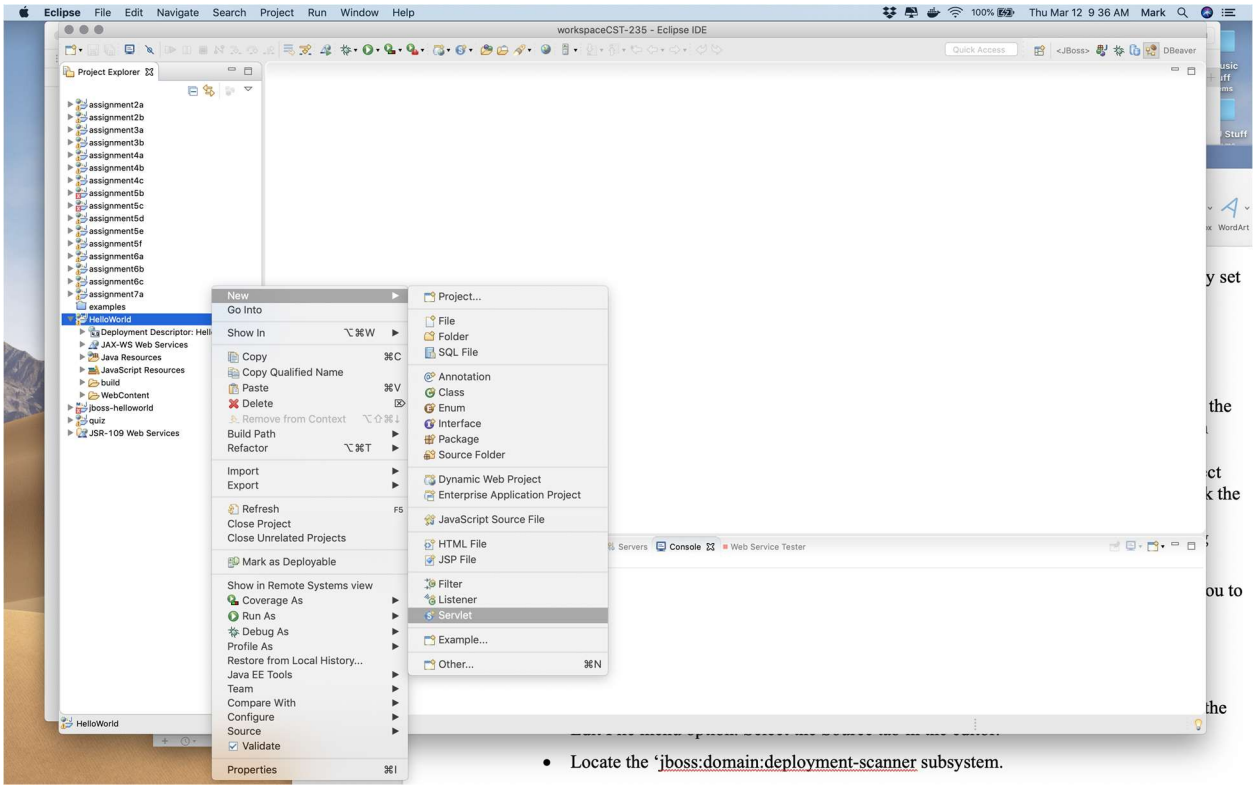
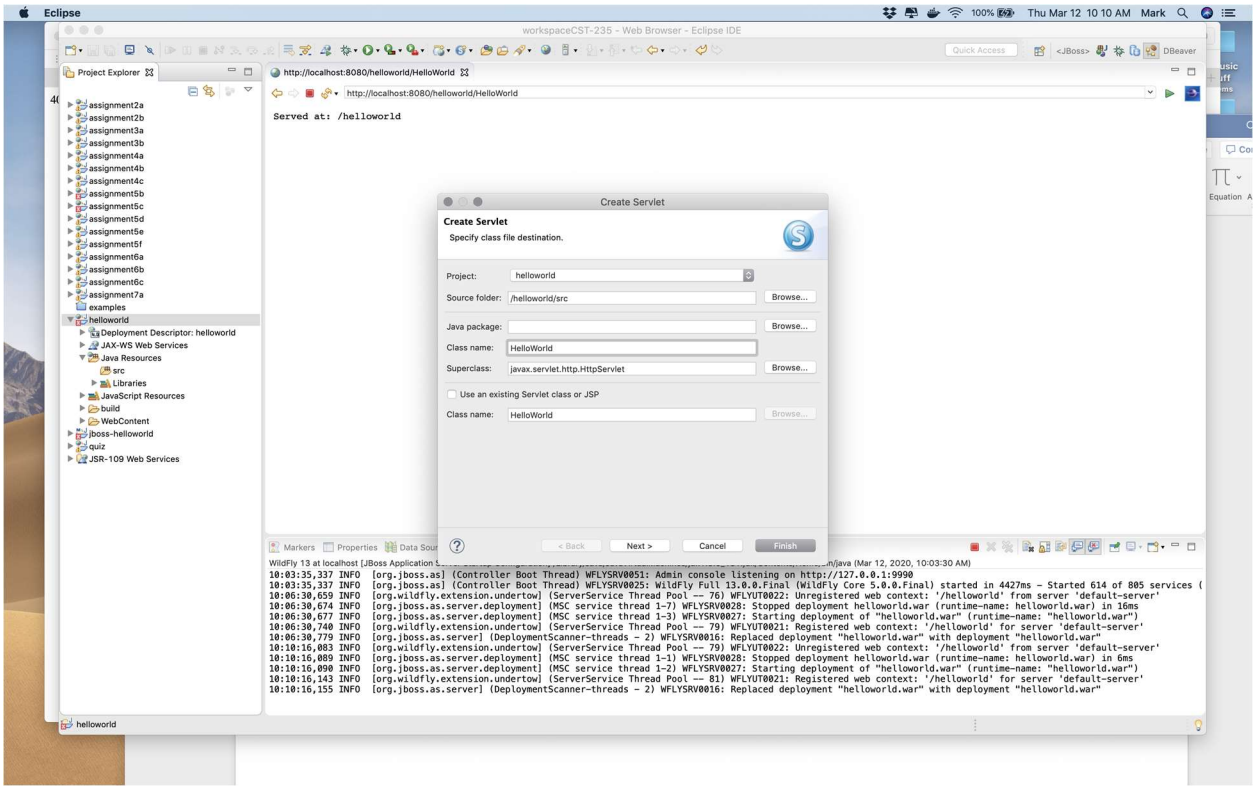



```
<subsystem xmlns="urn:jboss:domain:deployment-scanner:2.0">
    <deployment-scanner path="deployments" relative-to="jboss.server.base.dir" scan-interval="5000" auto-deploy-zipped="false" auto-deploy-exploded="true" runtime-fa
</subsystem>
```

Appendix C


Eclipse File Edit Navigate Search Project Run Window Help
New
Open File...
Open Projects from File System...
Recent Files
Close
Close All
Save
Save As...
Save All
Revert
Move...
Rename...
Refresh
Convert Line Delimiters To
Print...
Import...
Export...
Properties
Switch Workspace
Restart
JPA Project
EJB Project
Enterprise Application Project
Application Client Project
Connector Project
Maven Project
Static Web Project
Dynamic Web Project
Project...
Session Bean (EJB 3.x)
Message-Driven Bean (EJB 3.x)
Web Service
Folder
File
Servlet
Example...
Other...
workspaceCST-235 - Eclipse IDE
Markers Properties Data Source Explorer Snippets Problems Servers Console Web Service Tester
No consoles to display at this time.
jboss-helloworld
• Locate the 'jboss:domain:deployment-scanner subsystem.
Page 2 of 7 921 words English (United States)


Eclipse
New Dynamic Web Project
Dynamic Web Project
A project already exists with this name.
Project name: helloworld
Project location
Use default location
Location: /Users/markreha/Documents/workspaceCST-235/helloworl
Browse...
Target runtime
WildFly 13.0 Runtime
New Runtime...
Dynamic web module version
4.0
Configuration
Default Configuration for WildFly 13.0 Runtime
Modify...
A good starting point for working with WildFly 13.0 Runtime runtime. Additional facets can later be installed to add new functionality to the project.
EAR membership
Add project to an EAR
EAR project name: EAR
New Project...
Working sets
Add project to working sets
New...
Working sets:
Select...
< Back Next > Cancel Finish
workspaceCST-235 - Web Browser - Eclipse IDE
Problems Servers Console Web Service Tester
10:03:35,337 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0060: Http management interface listening on http://127.0.0.1:9990/management
10:03:35,337 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0051: Admin console listening on http://127.0.0.1:9990
10:03:35,337 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0025: WildFly Full 13.0.0.Final (WildFly Core 5.0.0.Final) started in 4427ms - Started 614 of 805 services (
10:06:30,659 INFO [org.wildfly.extension.undertow] (ServerService Thread Pool -- 76) WFLYUT0022: Unregistered web context: '/helloworld' from server 'default-server'
10:06:30,674 INFO [org.jboss.as.server.deployment] (MSC service thread 1-7) WFLYSRV0028: Stopped deployment helloworld.war (runtime-name: helloworld.war) in 16ms
10:06:30,677 INFO [org.jboss.as.server.deployment] (MSC service thread 1-3) WFLYSRV0027: Starting deployment of "helloworld.war" (runtime-name: "helloworld.war")
10:06:30,740 INFO [org.wildfly.extension.undertow] (ServerService Thread Pool -- 79) WFLYUT0021: Registered web context: '/helloworld' for server 'default-server'
10:06:30,779 INFO [org.jboss.as.server] (DeploymentScanner-threads - 2) WFLYSRV0016: Replaced deployment "helloworld.war" with deployment "helloworld.war"
helloworld



- Locate the 'jboss:domain:deployment-scanner subsystem.