

# Work Completed

## Installation of (Eclipse,Maven,Git,JUnit)

- Eclipse (**V. 2018-09 EE**)
  - Eclipse IDE 2018-09 R Packages:  
<https://www.eclipse.org/downloads/packages/release/2018-09/r>
  - Eclipse IDE for Java EE Developers
  - I used this version because at the time of creation, TestNG did not have a plugin for the most current versions of Eclipse.
- Maven
  - Create Maven Project (**maven-archetype-quickstart 1.1**) through Eclipse
- Git
  - Setup Github Account: <https://github.com/>
  - Git download: <https://git-scm.com/downloads>
- JUnit (**V. 4.12**)
  - Maven Dependency: <https://mvnrepository.com/artifact/junit/junit/4.12>

This video includes how to setup Git and clone the repository to the Github account. How to set up a Maven project in Eclipse and how to add the JUnit dependencies. How to create some tests for JUnit.

### Video for Installation and short examples

- Eclipse,Maven,Git, JUnit: <https://youtu.be/ymFM2A7fx0Q>
  - Pre-existing code: none (all was done in video)
  - Finished code: '1-JunitDemo'
- Junit Running Tests/Test Suite: <https://youtu.be/g86TsdMU81k>
  - Pre-existing code: '2 - JUnitTestSuite'
  - Finished code: '2 - JUnitTestSuite2Completed'

## Log4j Installation and Examples

- Log4j (**V. 1.2.17**)
  - Apache Log4j zip:<http://logging.apache.org/log4j/1.2/download.html>
  - Properties file is made during the video (code is also in the description)

This video includes the installation for Log4j and includes how to create a properties file for Log4j and how to create logs.

### Video for Log4j Installation and examples

- Log4j Installation/Examples: <https://youtu.be/YcJ-rVy7SJ8>

- Pre-existing code: none (all was done in video)
- Finished code: '3-Log4jDemoCompleted'

## TestNG Installation and Examples

- TestNG (**Plugin from Eclipse V. 2018-09 EE**)
  - On Eclipse go to the Help tab and select Eclipse Marketplace
    - In the search bar type in 'TestNG' and Install 'TestNG for Eclipse'

This video includes the installation for TestNG and running tests with annotations. TestNG installation and annotation example.

Video for TestNG installation and examples:

- TestNG Installation/Examples: <https://youtu.be/OetwU63I9QQ>
  - Pre-existing code: none (all was done in video)
  - Finished code: '4-TestNGDemoCompleted'

## Selenium Installation and Examples

- Selenium
  - Selenium Standalone Server (**V. 3.141.59**)
  - Selenium Client & WebDriver Language Bindings (**V. 3.141.59**)
  - Mozilla Gecko Driver (**V. 0.24.0 (Latest)**)
  - <https://www.seleniumhq.org/download/>

Video for Installation and short examples

- Selenium Installation: <https://youtu.be/BuwsAwoyvOs>
  - Pre-existing code: none (all was done in video)
  - Finished code: '5-SeleniumInstallationCompleted'
- Selenium Examples: <https://youtu.be/r4KEqla0j4U>
  - Pre-Existing code: '5-SeleniumTestExercise'
  - Finished code: '5-SeleniumTestExerciseCompleted'

## Cucumber Installation and Examples

- Cucumber (**V. 4.4**)
  - Maven Dependency: <https://mvnrepository.com/artifact/io.cucumber/cucumber-java/4.4.0>
  - On Eclipse go to the Help tab and select Eclipse Marketplace
    - In the search bar type in 'cucumber' and Install 'Cucumber Eclipse Plugin'

Video for Installation and short examples

- Cucumber Installation: [https://youtu.be/tEw\\_HrCElBk](https://youtu.be/tEw_HrCElBk)
  - Pre-existing code: none (all was done in video)
  - Finished code: '6-CucumberInstallationCompleted'
- Cucumber Background / Example Tables: <https://youtu.be/mBZRRt-NXdc>
  - Pre-existing code: none (all was done in video)
  - Finished code: '6-CucumberBackgroundAndExampleTableCompleted'
- Cucumber Client/Server Example: <https://youtu.be/uBVMYjBNh-E>
  - Pre-existing code: '6-CucumberClientServer'
  - Finished code: '6-CucumberClientServerCompleted'
- Additional Server Example: <https://youtu.be/V2m6wbsKvLA>

## Threads, Race Condition, Deadlocks

Video for Threads, Race Condition, Deadlocks

- Threads, Race Condition, Deadlocks: <https://youtu.be/TSh6GT2t1cY>
- Additional Deadlock Example: <https://youtu.be/nF6jXmMAeL4>
- Pre-existing code / finished code: 'ThreadsExample'

## Difficulties in Handling Concurrency with Totem

Video for Concurrency with Totem

- Totem Overview and Concurrency Problem: <https://youtu.be/14neP4cM4eA>
- Pre-existing code / finished code: 'ThreadsExample'