**PuNit Research**

**Research into Analysing a Java File?**

* Can read the java file using BufferedReader
  + Could compare java file against test file by looping through and checking for method name conventions

<https://docs.oracle.com/javase/8/docs/api/java/io/BufferedReader.html>

* For compilation test testing using a process to compile the program

<https://www.digitalocean.com/community/tutorials/compile-run-java-program-another-java-program>

* For compilation test could use javaCompiler – the application we create will provide programmatic access to the compiler and allow us to compile a java file

<https://docs.oracle.com/javase/8/docs/api/javax/tools/JavaCompiler.html>

* Using processing commands could see if the program animates by purely running it with no errors

**How to Check if the Input File Name is Correct?**

* Could use regex
* Checkers using readline()
  + Could split string up of file name up to check bits
* Check input file types
  + Args[0] = \*\*\*\*\*\*.java
  + Args[0] = \*\*\*\*\*\*.pde
  + Args[0] = folder
  + Args[1] = \*\*\*\*\*\*.txt

<http://www.java2s.com/example/java-utility-method/is-file-name-valid-index-0.html>

**Existing Automated Tools?**

<https://www.softwaretestinghelp.com/java-testing-tools/>

<https://techbeacon.com/app-dev-testing/most-popular-java-tools-every-phase-development>

* Processing command line functionality
  + Could create a java program to run the export program to convert it easily or java program to run it
  + Commands for:
    - Exporting
    - Running
    - Builds/ compiles it
    - Runs it in presentation mode

<https://github.com/processing/processing/wiki/Command-Line>

* Junit

<https://junit.org/junit5/>

<https://www.softwaretestinghelp.com/selenium-junit-framework-selenium-tutorial-11/>

<https://discourse.processing.org/t/junit-tests-with-processing-in-eclipse/2426>

<https://forum.processing.org/two/discussion/22589/testing-unit-testing-tdd-with-processing-development-gsoc.html>

<https://forum.processing.org/two/discussion/20354/testing-processing-code-program.html>

* Java performance and load testing tools - Apache JMeter
  + Performance testing down the track

<https://www.softwaretestinghelp.com/jmeter-tutorials/>

* XMLUnit

<https://www.xmlunit.org/>