**CS 1632 - DELIVERABLE 6: Static Analysis of the Sieve of Eratosthenes**

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<https://github.com/znaeb/bug-fodder>

/src/Sieve.java

/test/SieveTest.java

Summary:

For this deliverable I ran findbugs and checkstyle from the findbugs and checkstyle NetBeans plugins from the SQE set of plugins (Software Quality Environment). In addition to that I also ran checkstyle from the command-line (following the example given).

There was a difference between running checkstyle from the command-line and running it from the plugin. Although both used the same input file, the plugin had far more issues that it found, especially with regards to tabs and spaces. After I changed those tabs and spaces, according to how the plugin told me to do so, the command-line run of checkstyle showed no change (I.E. it didn’t detect it as an error originally, and it didn’t view the changes as being erroneous).

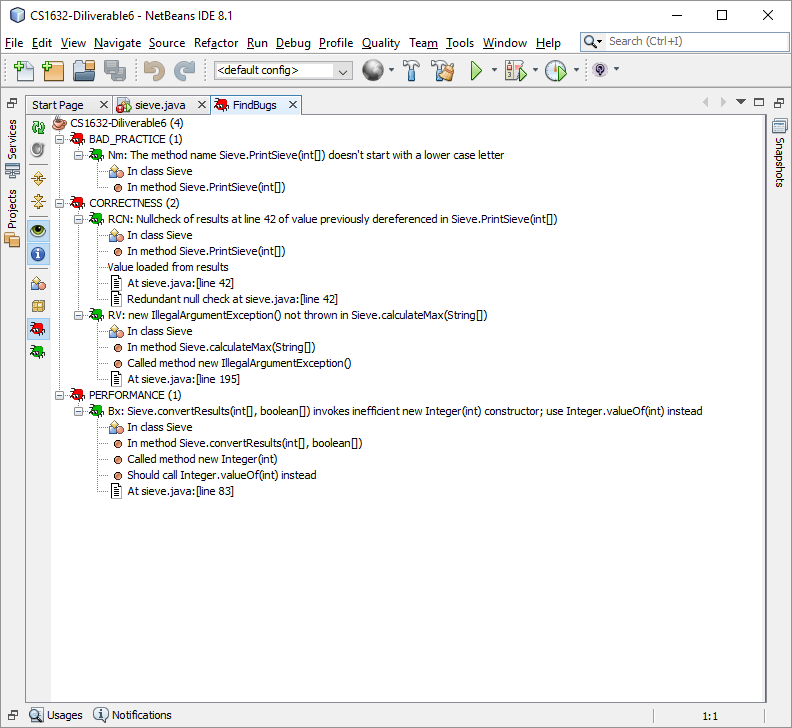
As such, I decided to err on the side of believing there are some issues with the command-line run of checkstyle. There was one annoying naming issue, which was found by both the checkstyle plugin and in the command line, and it reguired that the first two characters be the same as each other (this was one of the Laboon changes).

With regards to findbugs, there were a few issues. In the function that calculates max, an exception was not thrown, it was just kind of declared. This was a relatively quick fix, however there was another issue I found, that involved quite a bit of fiddling around.

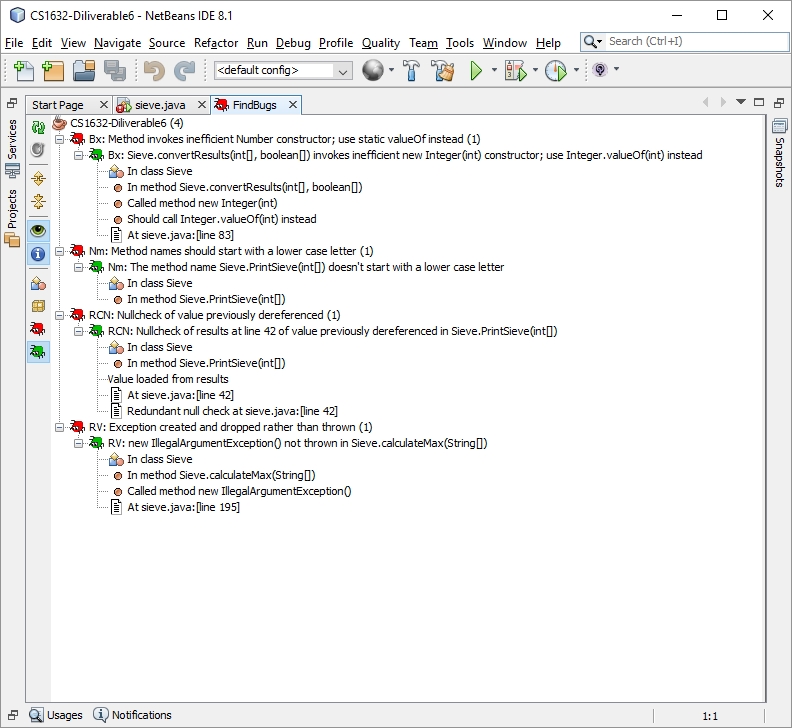
When the user input the number 1 as the input, it printed the empty array, but didn’t print “BLANK”. I needed to manually set the Boolean representing one to false, because it wouldn’t get caught otherwise, and change the starting location of several loops and the values in some “if-statements” by one, because originally one was in fact included in the array as being prime, but it was skipped over. This led to the issue that when the array only had one in it, it saw that the array wasn’t empty, so it didn’t print “BLANK”, but it ignored the one, so it didn’t print any numbers either, and only printed the “<” used for formatting.

I had a few issues regarding pushing to GitHub after changing the file’s name, so there are several commits that seem to be going a bit back and forth, but I believe the issues have been resolved.

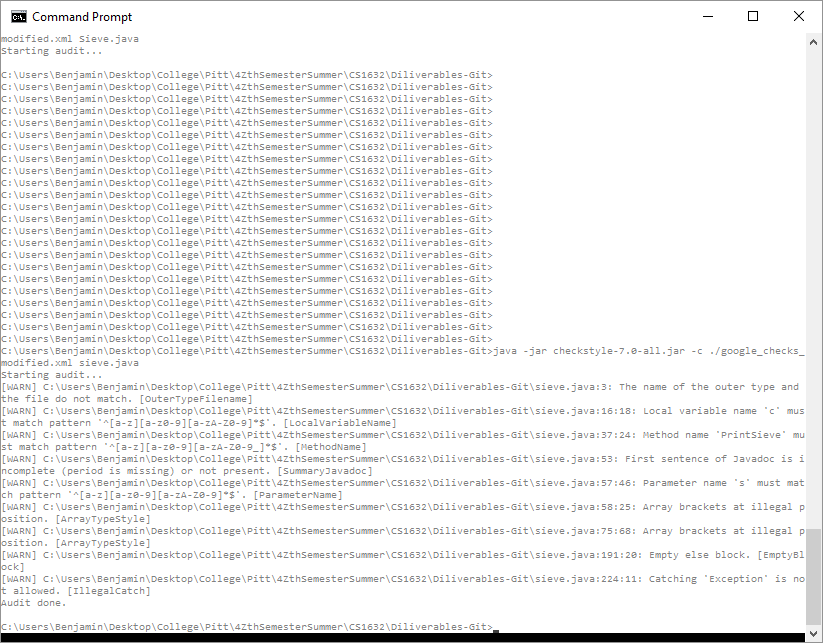
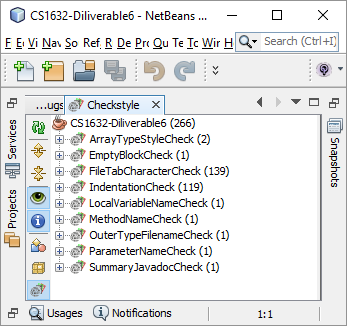
Findbugs Results Image:



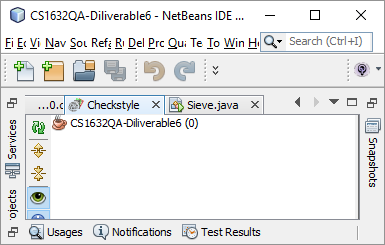
Findbugs reorganized:



Check Style:



CheckStyle after changes:





findBugs after changes:

