

Automated Static Analysis with SpotBugs

OBJECTIVES

- Static Analysis using SpotBugs
- That's it :-)

USING SEG3103_PLAYGROUND

- Create **/lab07** directory
 - Extract **Calculator.zip**
 - Compile and run the application
 - Commit code before making changes

SpotBugs



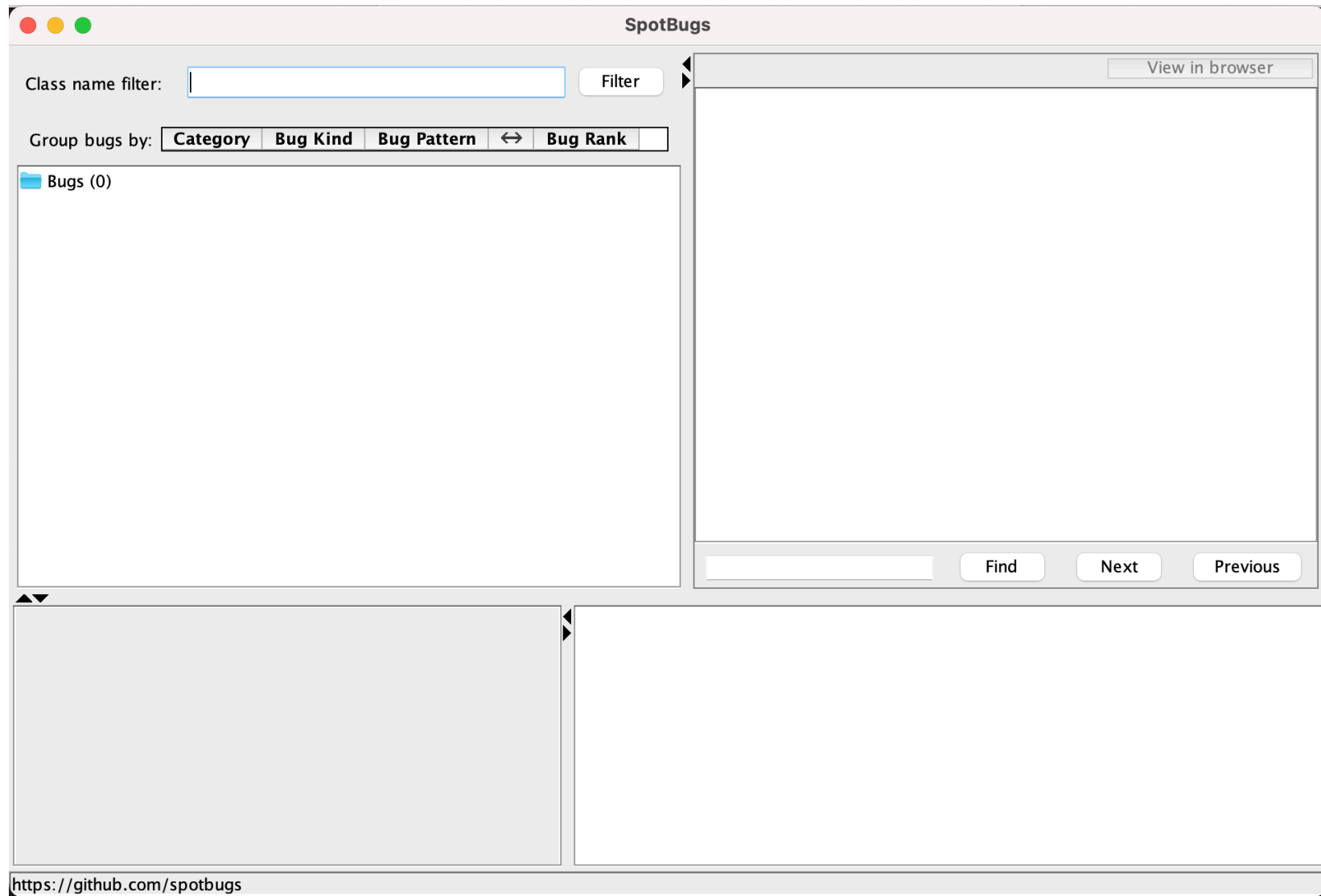
Find bugs in Java Programs

SpotBugs is a program which uses static analysis to look for bugs in Java code. It is free software, distributed under the terms of the [GNU Lesser General Public License](#).

SpotBugs is a fork of [FindBugs](#) (which is now an abandoned project), carrying on from the point where it left off with support of its community. Please check [the official manual](#) for details.

SpotBugs requires JRE (or JDK) 1.8.0 or later to run. However, it can analyze programs compiled for any version of Java, from 1.0 to 1.9.

<https://spotbugs.github.io>



```
java -jar ./lib/spotbugs/lib/spotbugs.jar
```

New Project

Project name
Calculator

Classpath for analysis (jar, ear, war, zip, or directory) [Help](#)
/Users/afoward/sin/courses/_/seg3x03_internal/lab07_template/calculator/dist
Add Remove

Auxiliary classpath (optional; classes referenced by analysis classpath) [Help](#)

Add Remove

Source directories (optional; used when browsing found bugs) [Help](#)
/Users/afoward/sin/courses/_/seg3x03_internal/lab07_template/calculator/src
Add Remove Wizard

Cancel Analyze

- ▶ Create a SpotBugs project and link to your calculator project
- ▶ Make sure you compile the project first!!!

SPOTBUGS ANALYSIS

- Run the analysis
- For each identified issue, do one of the following (you must do at least one of each)
 - Fixing the *bugs*, or
 - Briefly describing how you would fix the code, or
 - In your own words, describe what the bug
- Re-run the analysis and confirm the bugs you fixed are no longer identifier

SUBMISSION

- All work should be written under
 - **seg3103_playground/lab07**
- Provide your analysis of SpotBugs including
 - Screenshots of SpotBugs
 - The applications running
 - Your analysis of the results (including code changes)