Homework 4

Group 1

Names:

\* James Rodgers

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\*Napoleon de Mesa

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Question & Answers Page

List of the core functionality of the systems. 2

The relationship between major classes and interfaces. 2

Why you think those relations are good or not good. 2

Find instances of design patterns. Explain how they’re used? 2

If Java Streams or Lambdas have been used. If so, how? 2

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1. List of the core functionality of the systems.

The core functionality of LeakCanary library is to provide memory leak detection for

Android and Java.

1. The relationship between major classes and interfaces. Why you think those relations are good or not good.
2. Find instances of design patterns. Explain how they’re used.

* One instance of a design pattern used is the Flyweight Pattern. The flyweight pattern is used when you need to create many objects of a class. What this can do is to apply it to reduce the load on memory by sharing objects.
* Another instance of design pattern used is the Mediator Pattern. “Mediator design pattern is used to provide a centralized communication medium between different objects in a system. Mediator design pattern is very helpful in an enterprise application where multiple objects are interacting with each other. If the objects interact with each other directly, the system components are tightly-coupled with each other that makes maintainability cost higher and not flexible to extend easily.” - https://www.journaldev.com/1827/java-design-patterns-example-tutorial

1. If Java Streams or Lambdas have been used. If so, how?

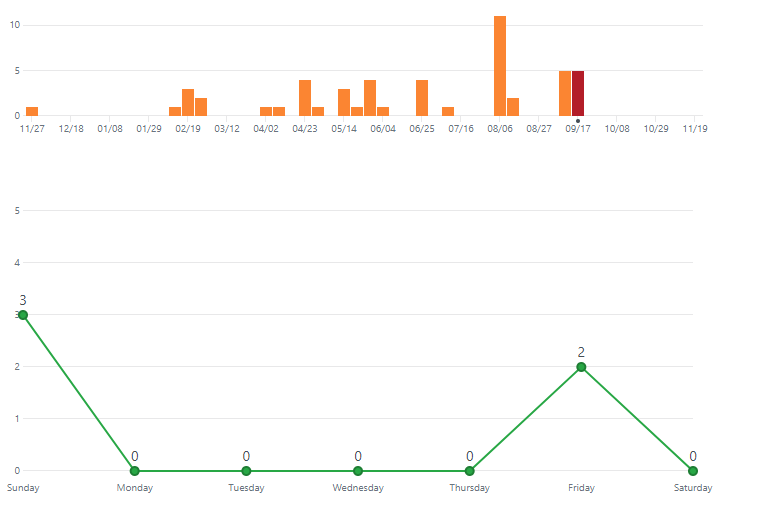
* Java 8 Streams were not used in the LeakCanary code.
* Java 8 SE Lambdas were not used in the LeakCanary code.

Appendix

Number of commits with terms “bug”, or “bugfix” in the commit message

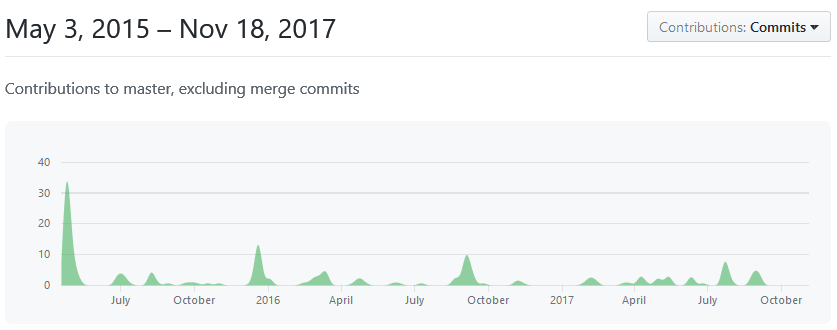
A graph to show the frequency of code commits.

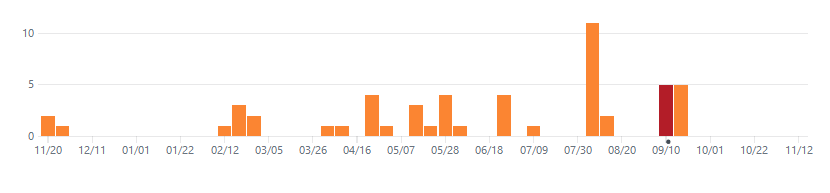




* The top graph shows the number of additional lines and deleted lines in the code in the past two years.
* The middle graph shows the number of commits done in the past year to the repository.
* The bottom graph shows the average number of commits a day that happened since the creation of the repository.

Graph to show the code growth over time





External dependencies

Number of passing test cases

The number of passing test cases that I counted were 17. I found and counted them in:

* + leakcanary/leakcanary-analyzer/src/test/java/com/squareup/leakcanary/
  + leakcanary/leakcanary-watcher/src/test/java/com/squareup/leakcanary/
  + leakcanary/leakcanary-sample/src/test/java/com/example/leakcanary/

Major code contributors

# Pierre-Yves Ricau is the main contributor who goes by Pyricau on GitHub.



# John Rodriguez is the second major code contributor who goes by Jrodbx on GitHub.



Both Pierre-Yves and John work at Square Inc. who has the copywrite license for this

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