

# CS304 Software Engineering: Do and Don't for GitHub-OSS Fixit

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Slides adapted from cs427 (UIUC) and cs304( SUSTech)

# Questions about the project

How to join GitHub classroom?

A You do not need to join GitHub classroom now. Invitation link will be available for each assignment/project.

Can the group members for the final project register for different lab sessions?

A It is not recommended for selecting different lab sessions because (1) you may need to discuss with your group members during certain lab sessions, and (2) you will need to present together during final presentation

Can I choose different language?

A You should use Java (projects with mixture of Java and other languages is fine) because most tools introduced in class do not support other languages

# Selection of issues

- The class project is a group assignment. **Each group could have only 4-6 members.**
- **Detailed instructions have been uploaded to Sakai**
- **Do not choose an open issue that has pull requests**

Wiki Security Insights

Cache.asMap() interface makes it possible to map NULL values into the cache New issue

#5342

Open pontusp opened this issue on 3 Dec 2020 · 2 comments · May be fixed by #5348

**pontusp** commented on 3 Dec 2020

Through the `asMap()` interface it is possible in certain situations to partially map NULL values into the `Cache` which results in an unpredictable state. When using `ConcurrentMap.compute` and `ConcurrentMap.computeIfPresent` it possible to remap a previous value to null rather than removing it, which I think would be the expected behaviour here.

Attached [CacheNullValueTest.java.zip](#) contains test cases that reproduces this problem, tested on 30.0-jre

**ben-manes** commented on 4 Dec 2020 · edited

The test case is confusing because it passes due to asserting the invalid behavior. I suspect that the Guava team would prefer to have a failing test to iterate against.

The compute methods are not a good fit with Guava's design, so the implementation has quirks and performance issues. I don't think those methods are commonly used, so they are likely not fully robust.

Can you try `Caffeine`? I believe my migration of your test passes, but flipping assertions leads me a little unsure. The builder is almost identical but since `async` is enabled by default, you'd need to specify `Caffeine.executor(Runnable::run)` to mirror Guava.

**netdtpb** added `P3` `package=cache` `type=defect` labels on 5 Dec 2020

**ben-manes** linked a pull request that will close this issue on 5 Dec 2020

Fix compatibility between the cache compute methods and a load #5348 Open

Assignees  
No one assigned

Labels  
`P3` `package=cache` `type=defect`

Projects  
None yet

Milestone  
No milestone

Linked pull requests  
Successfully merging a pull request may close this issue.  
[Fix compatibility between the cache compute ...](#)

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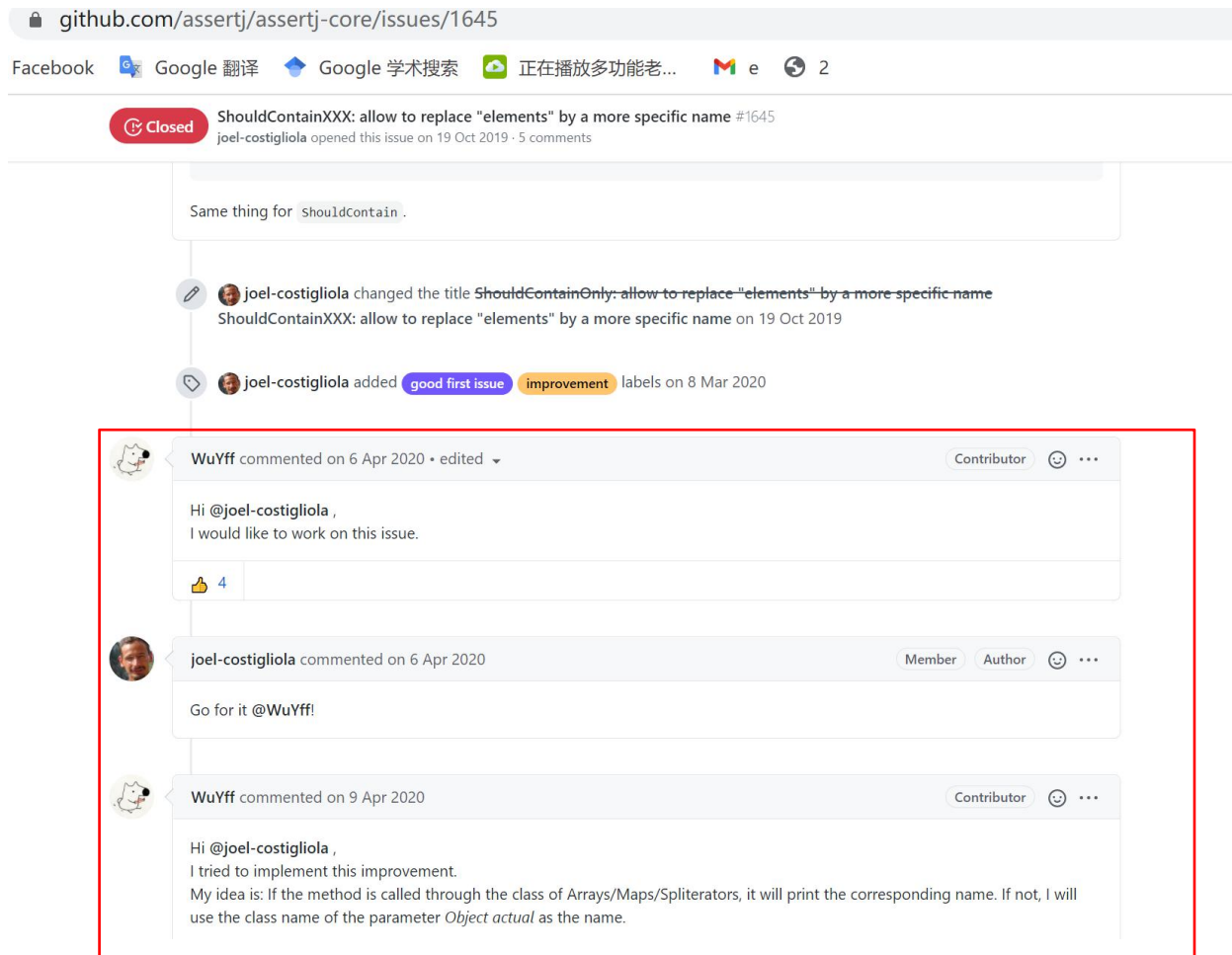
3 participants

[https://github.com/google/guava/i  
ssues](https://github.com/google/guava/issues)

open but has a  
linked pull request

# Communication with developers

- Get approval from developer about your intention to contribute



<https://github.com/assertj/assertj-core/issues/1645>


- Leave a comment saying "I would like to work on this issue"
- Tell developer your idea of the implementation to check if it matches the requirement


# Project Resources


## All Project Resources available in Sakai


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☐  [Video on "How to start working on open-source project from 0"](#)

☐  [如何参与 Apache 项目社区\(Chinese\).](#)

- Video on “How to start working on open-source project” is recommended