

code smells


“not in my house” - Hakeem Olajuwon



Peter Zberg, 13.03.2023



About me

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- CSS Insurance (<https://www.css.ch>)
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What is a code smell?

Definition

- “a code smell is any characteristic in the source code of a program that possibly indicates a deeper problem” - Wikipedia
- popularised by Kent Beck in the late 90s
- Made really popular by Martin Fowler’s Book “Refactoring: Improving the Design of Existing Code”

What is a code smell?

Types

- Bloaters
 - code, methods and classes that have increased to such enormous proportions that they are hard to work with
- Object-Orientation Abusers
 - object-oriented programming done wrong
- Change Preventers
 - if you need to change something in one place in your code, you have to make many changes in other places too.

What is a code smell?

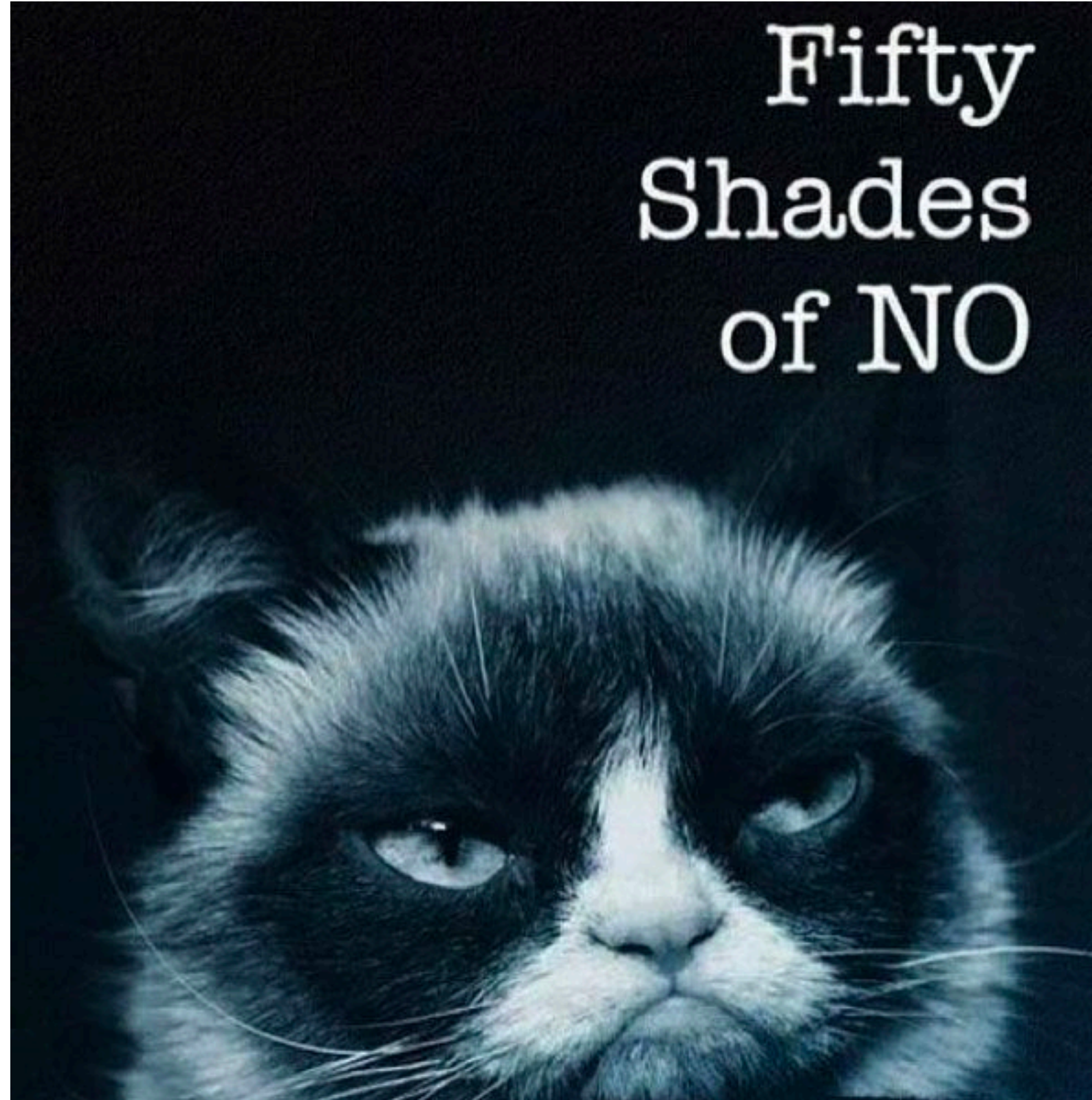
Types

- Dispensables
 - useless code (comments, dead code, ...)
- Couplers
 - these smells contribute to excessive coupling between classes or show what happens if coupling is replaced by excessive delegation

more about code smells: <https://sourcemaking.com/refactoring/smells>

Do we want code smells?

Fifty
Shades
of NO



How to prevent code smells?

- Know the rules
 - upfront
 - “best”
- Know someone that knows the rules
 - Code reviewer
 - Maybe senior developer?
- Know **something** that knows the rules
 - automatic code reviewer and preventer
 - Hint / Guidance

How to prevent code smells?

SCM

- enforce code review (= enforce PR)
 - only PRs are allowed to merge into 'main' branch
 - run integrations on PRs
 - need reviewers to approve PR
 - ie. you do not have a mob
 - have regulatory reasons (two-man-rule)

=> code gets reviewed by someone else

=> **Integrations!**

How to prevent code smells?

Sonar

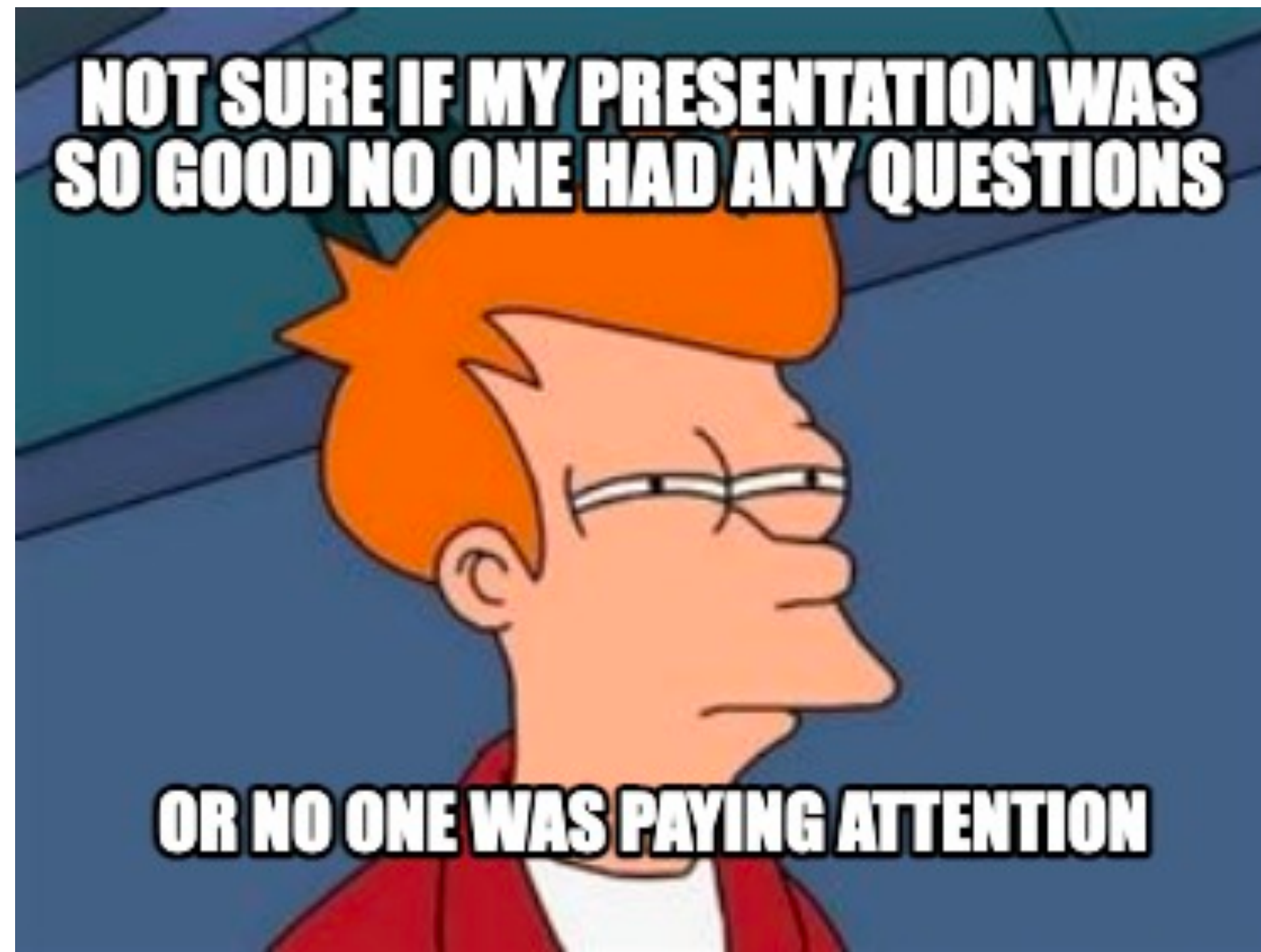
- SonarCloud
 - static code analysis
 - free for open source projects
- Well integrated in Github
 - Pull Request
- Quality-Gates and Rules

Demo

Wrap up

- Code smells are bad
 - Identify them as early as possible
 - use help
 - tools
 - IDE
 - Sonar

Thank you! Any questions?



Links

- Code smells: <https://sourcemaking.com/refactoring/smells>
- Sonar: <https://www.sonarsource.com/>
- Github: <https://github.com/>