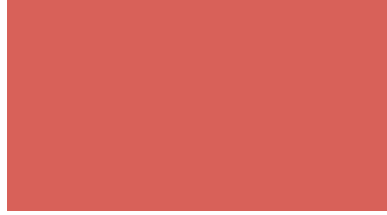


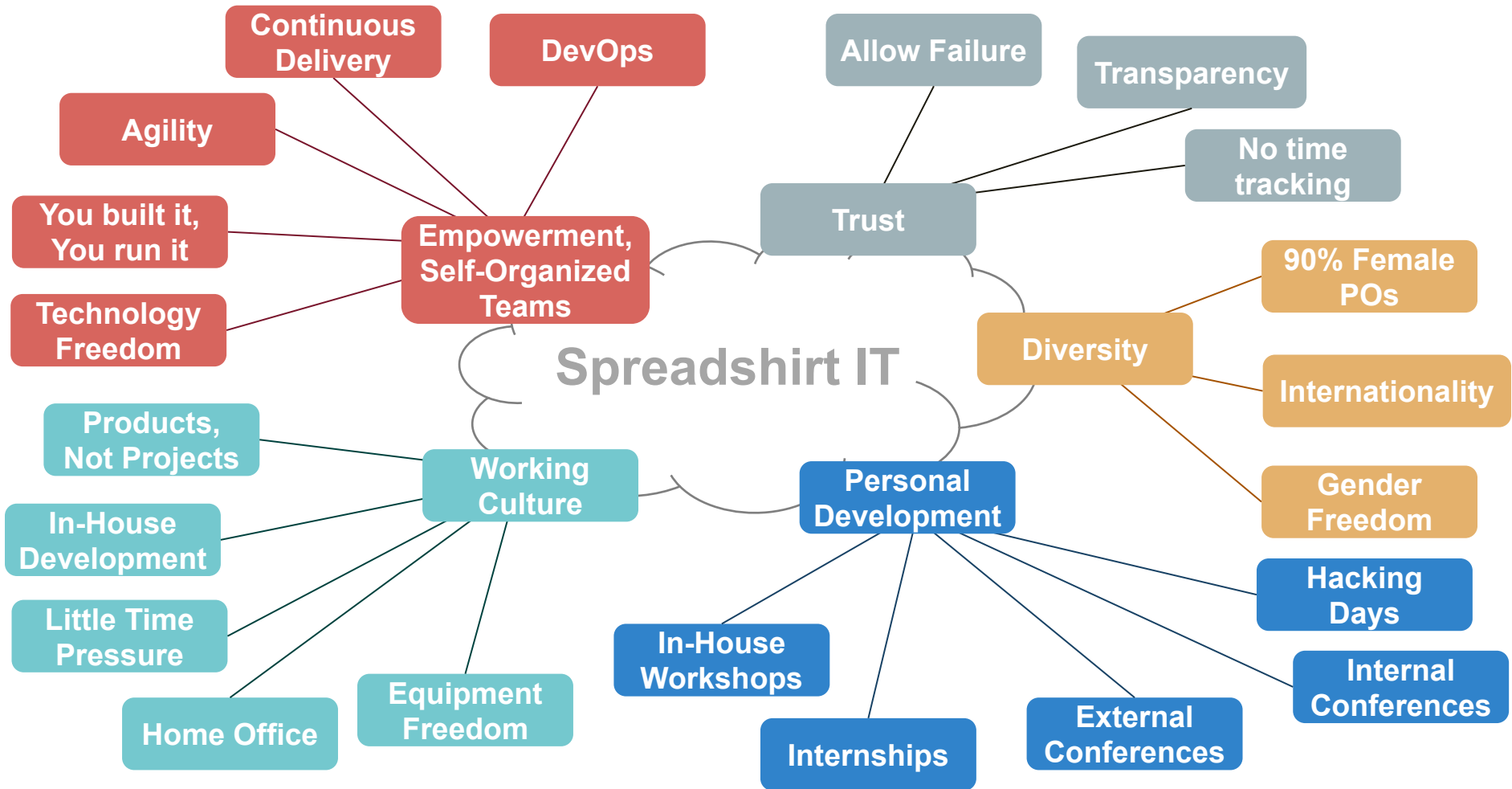
How to Mess Up Code Reviews

 @philipp_hauer, Spreadshirt

JUG Saxony Meetup, 21.01.2021

Spreadshirt

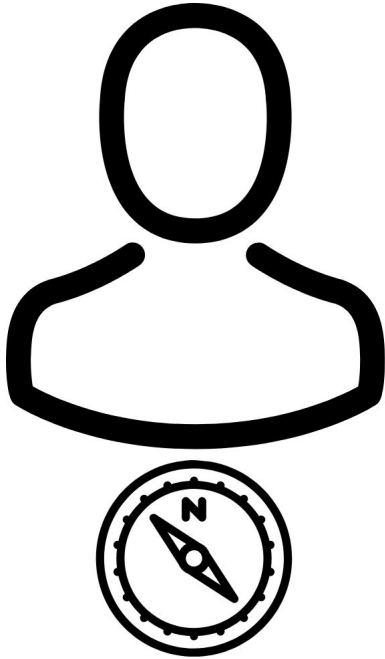




Conflicts due to Code Reviews?

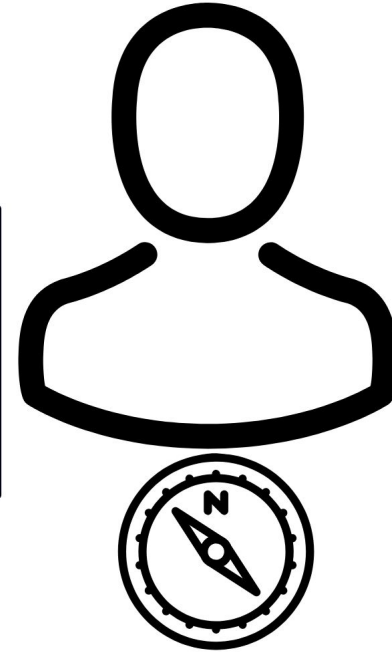
A Story of an Escalated Code Review...

Two Participants - Two Guidelines



Author

```
if (table.getVal  
table.getVal  
return table.g  
} else {  
return Optiona
```



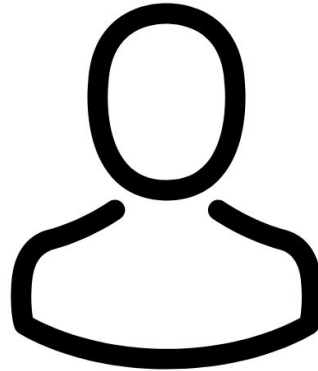
Reviewer

Guidelines for the Author

Be Humble

`NullPointerException`

ERROR!

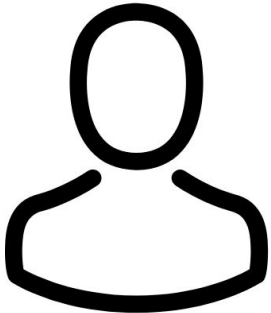


Human Being

Be Humble

I believe there is a mistake in your code.

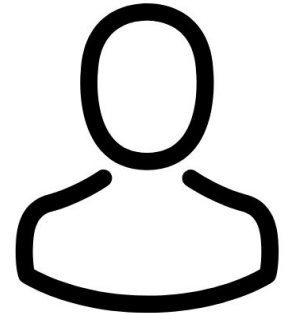
Oh, you are right!
Thank you for pointing me to it!



Reviewer

```
if (table.getVal  
    table.getVal  
    return table.g  
} else {  
    return Optional
```

Buggy Code



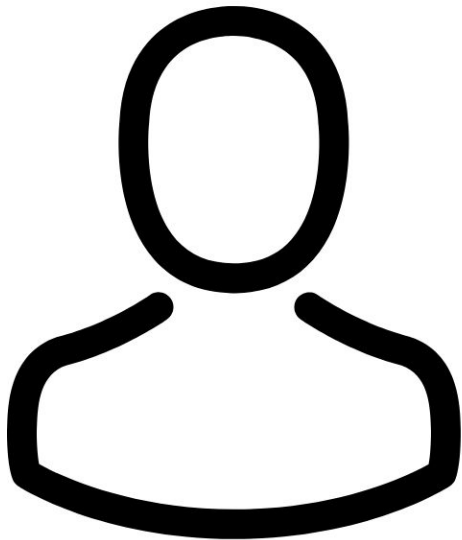
Author

Be Humble

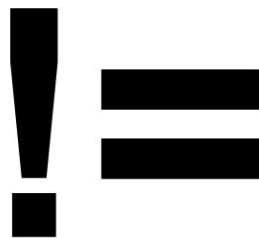
~~Mistakes~~

Opportunities to learn

You Are Not Your Code



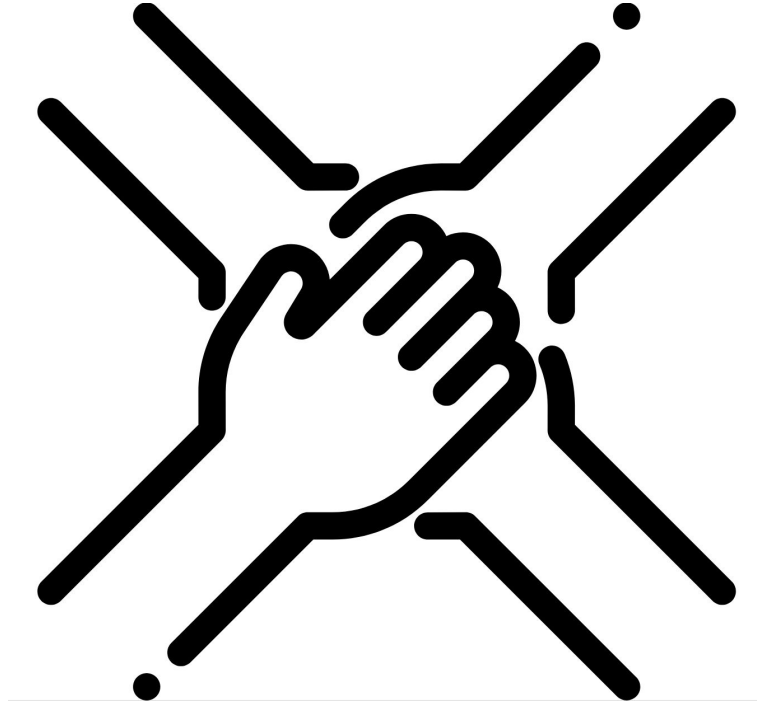
You



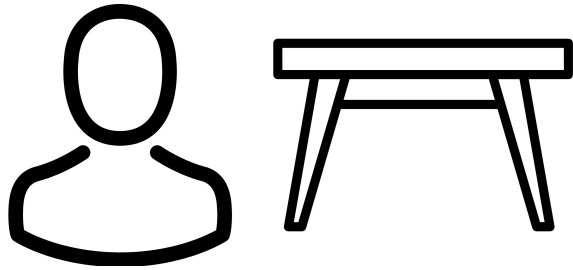
```
if (table.getVal  
    table.getVal  
    return table.g  
} else {  
    return Optiona
```

Your Code

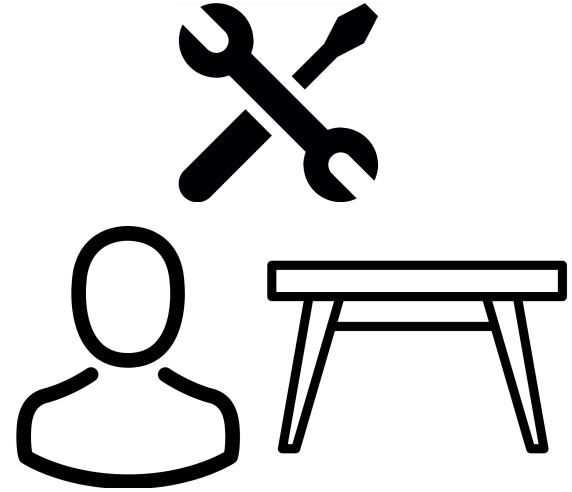
You Are On the Same Side



Mind the IKEA Effect



€

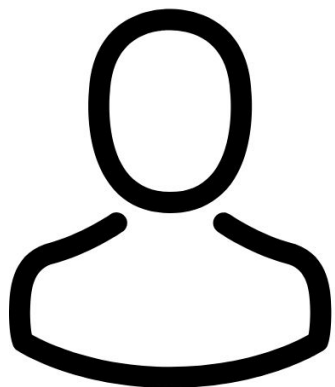


€€

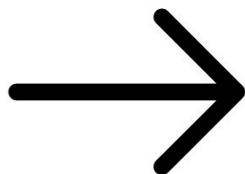
```
if (article.state == State.INACTIVE) {  
}
```

```
boolean articleIsOutOfStock =  
    article.state == State.INACTIVE;  
if (articleIsOutOfStock) {  
}
```

New Perspectives On Your Code

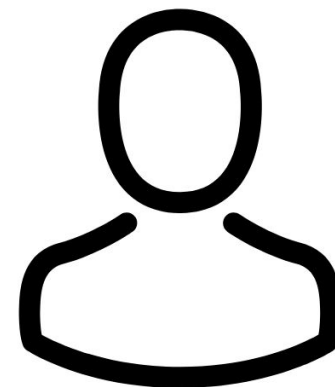
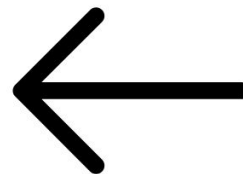


Author



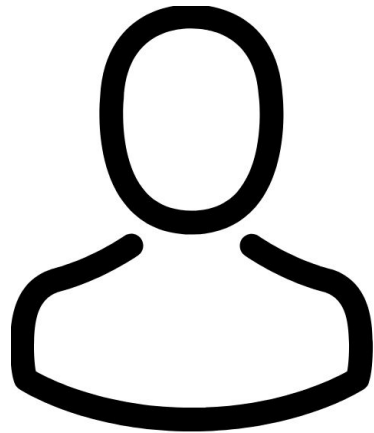
```
if (table.getVal  
    table.getVal  
    return table.g  
} else {  
    return Optiona
```

Code

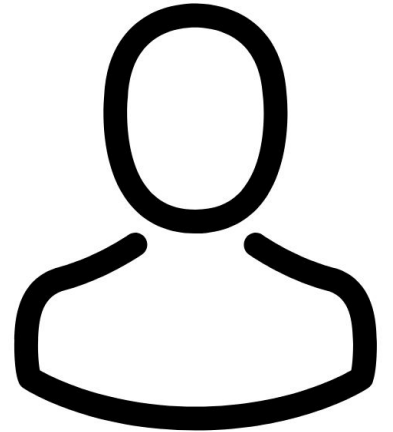


Reviewer

Exchange of Best Practices and Experiences



Author



Reviewer

Guidelines for the Reviewer

“You are writing cryptic code.”

“It’s hard **for me** to grasp
what’s going on in this code.”

Use I-Messages

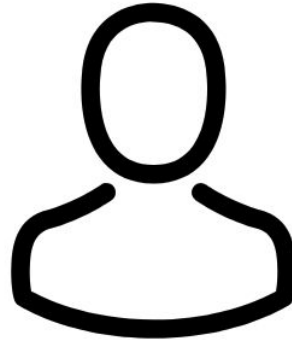
I suggest ...

I think ...

I believe ...

I would ...

It's hard **for me** to ...



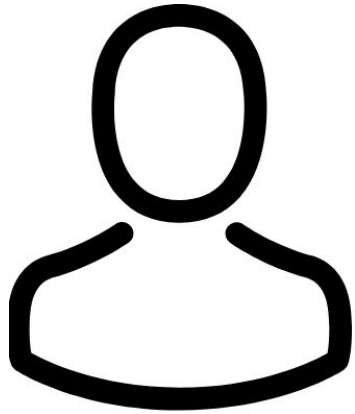
Reviewer

For me, this seems like ...

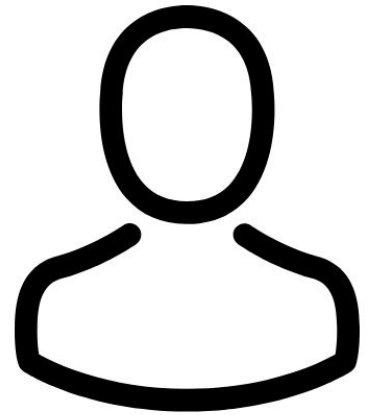
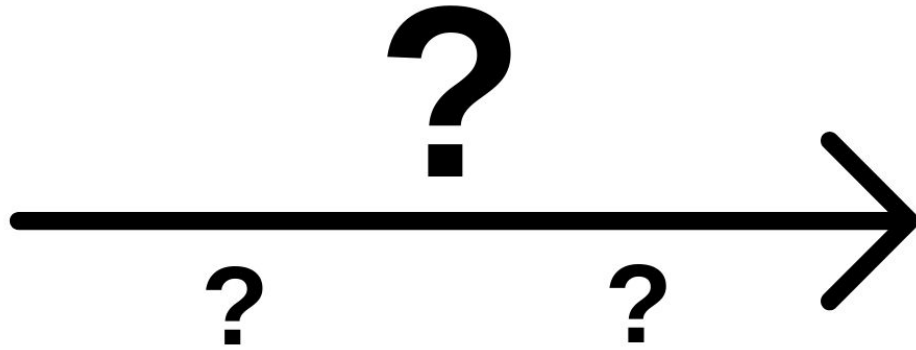
“This variable should have the name 'userId'.”

“What do you think about the name 'userId' for this variable?”

Ask Questions Instead of Making Statements



Reviewer

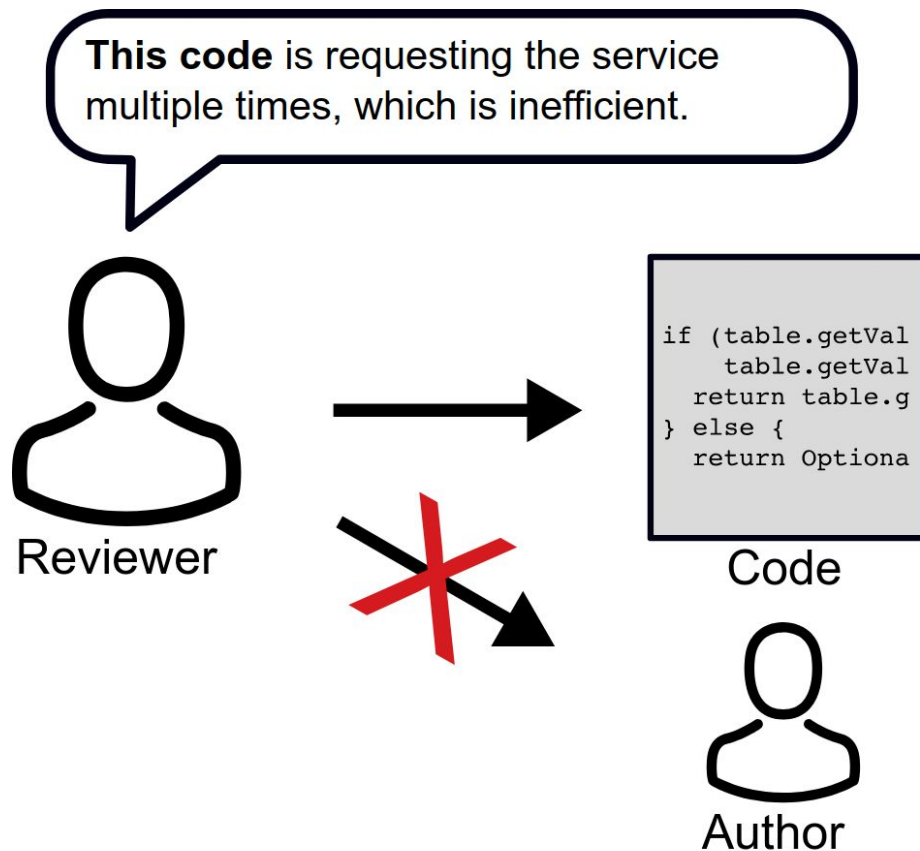


Author

“You’re requesting the service multiple times, which is inefficient.”

“This code is requesting the service multiple times, which is inefficient.”

Talk About the Code, Not the Coder

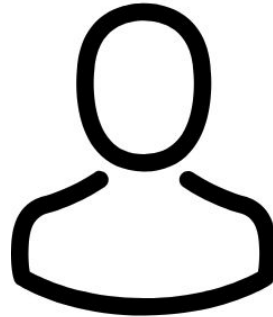


“You are sloppy when it comes
to writing tests.”

“I believe that you should
pay more attention to
writing tests.”

Refer to the Author's Behavior, Not Their Traits

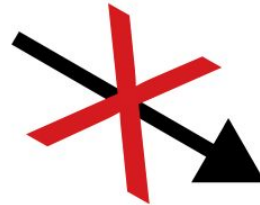
I believe that you should **pay more attention** to writing tests.



Reviewer



Behavior



But usually, it's not required to talk about the author at all!

Mind the OIR-Rule of Giving Feedback

Observation “This method has 100 lines.”

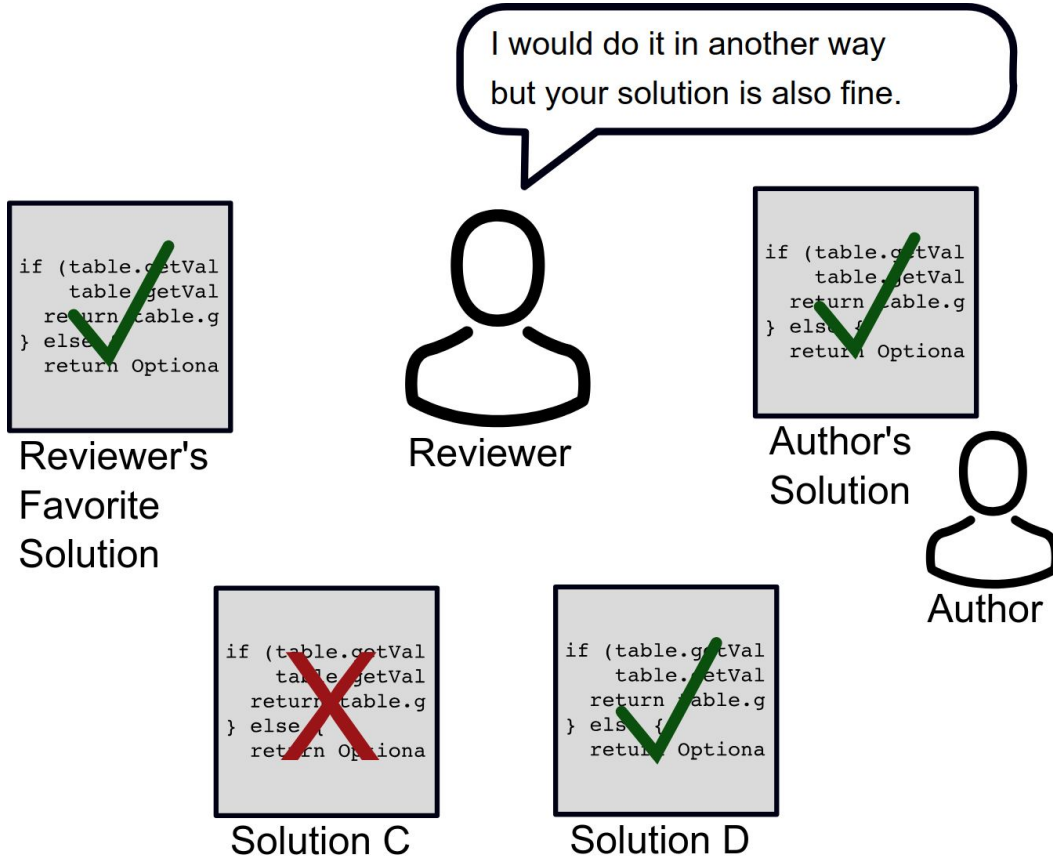
Impact “This makes it hard for me to grasp the essential logic of this method.”

Request “I suggest extracting the low-level-details into subroutines and give them expressive names.”

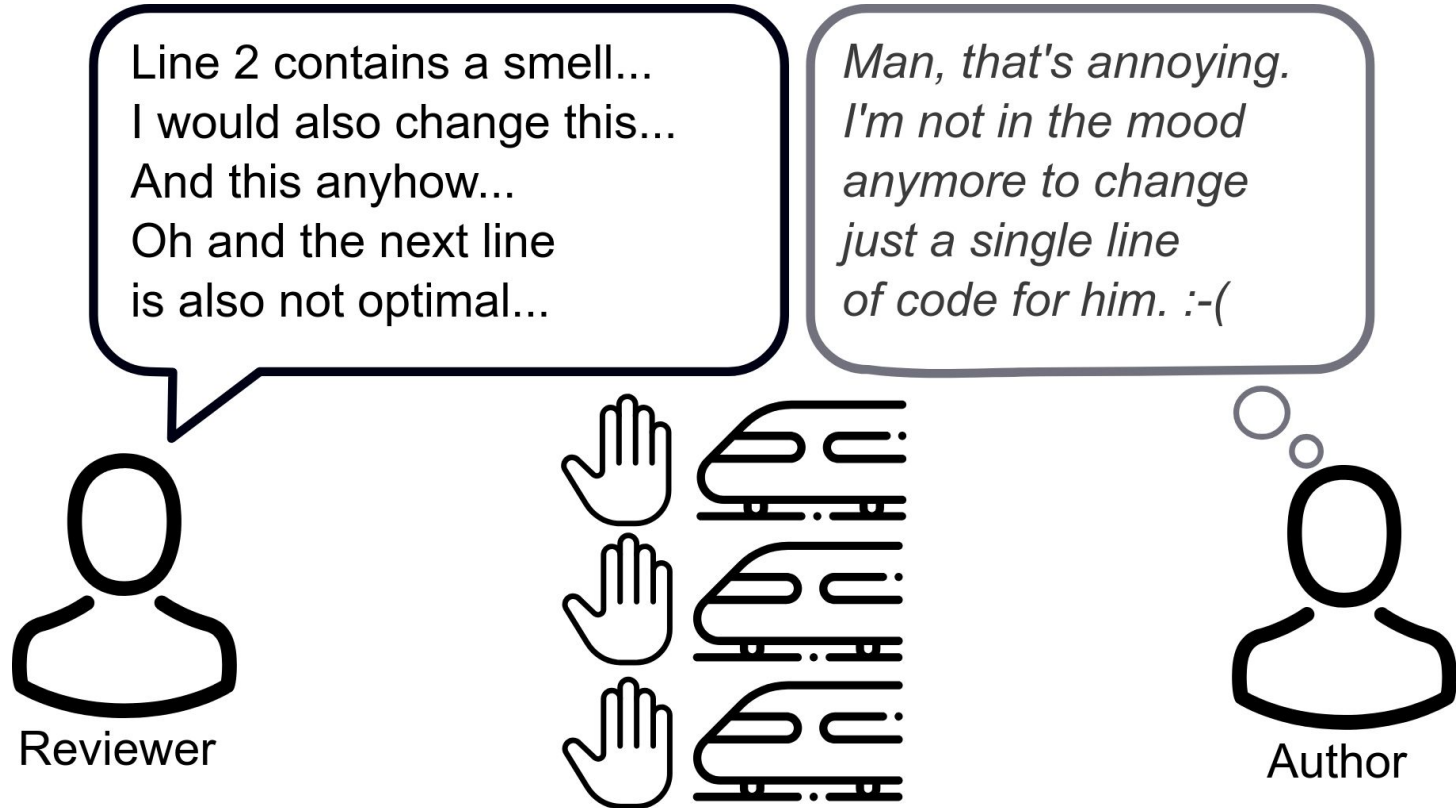
“I always use fixed timestamps in tests and you should too.”

“I would always use fixed timestamps in tests for better reproducibility but in this simple test, using the current timestamp is also ok.”

Accept That There Are Different Solutions

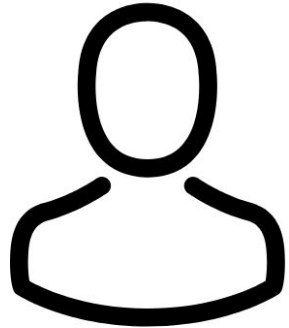


Don't Jump in Front of Every Train



Praise

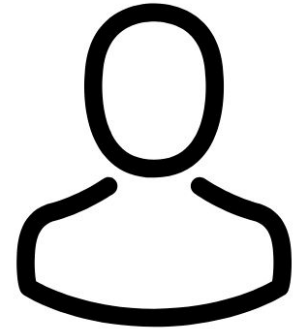
Well done!
I have no remarks.



Reviewer



Thanks! :-)



Author

“Most of your code looks good, but the method `calc()` is too big.”

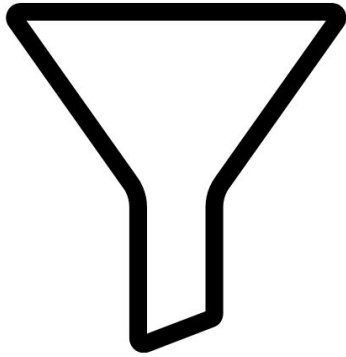
“I really like the class `ProductController`, Tim. It has a clear single responsibility, is coherent, and contains nicely named methods. Good Job!

Despite this, I spotted the method `calc()` which is too big for me.”

Guidelines for the Reviewer: Three Filters

Contribution: April Wensel, Compassionate Code Reviews

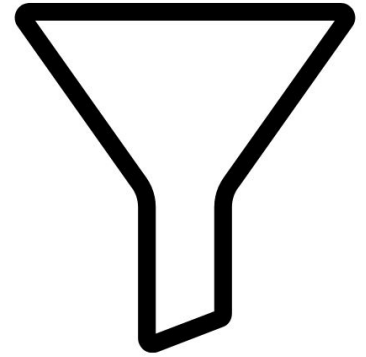
Filters for Code Reviews Like a Human



Is it True?



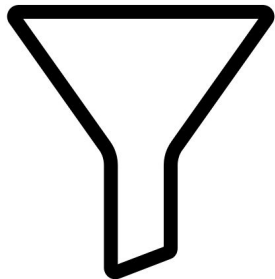
Is it Necessary?



Is it Kind?

“You should use getter and setter here. This code is wrong.”

“According to the Java style guide...”



“I've often seen..”

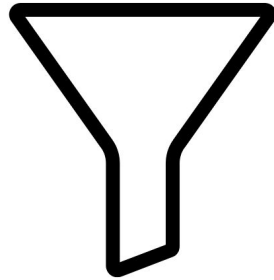
**Your Opinion
!= Truth**

Is it True?

“Did you consider to use getter and setter?”

“In this case, I would recommend to use getter and setter, because...”

“There is a space missing here.”



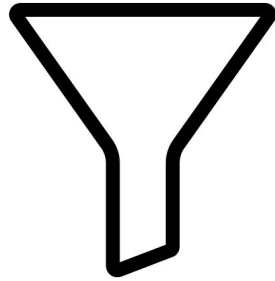
Is it Necessary?

“This code sends a chill down my spine, but I see your intention”



Is it Necessary?

“We should refactor this whole package”



Is it Necessary?

“Let's discuss the refactoring in a dedicated meeting.”

“This factory is badly over-engineered. The trivial solution is to just use the constructor”



Is it Kind?

No
Shaming!

“This factory feels complicated to me. Have you considered to use the constructor instead?”

Code Reviews: Face-to-Face or Online?

Do We Have a Choice?

100 % Remote Company?
Pandemic?

Communication Channels in Face-To-Face Code Reviews



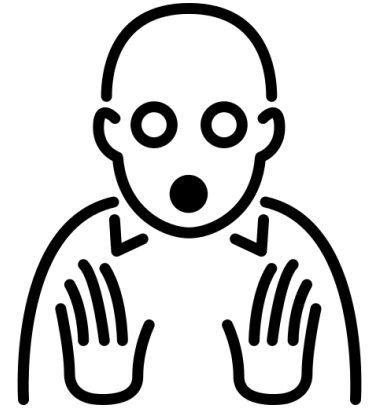
Word



Sound



Gestures



Facial
Expressions

Poor Communication Bandwidth in Online Code Reviews



Word



Sound



Gestures



Facial
Expressions

Misunderstandings

Time-Consuming

Conflict Potential

Aspects to Keep in Mind

Face-to-Face

- **High Communication Bandwidth**
 - Less misunderstandings
 - Fast
- Synchronous
 - Interruptions, less focused time
 - Common time slot required
- **Socialising**

Online

- Poor Communication Bandwidth
 - Misunderstandings, conflict potential
 - Time-consuming (written, more ping pong),
- **Written and asynchronous**
 - Less interruptions, more focused time
 - No common time slot required
- **Documentation of discussions**

Tips for Online Code Reviews

- Switch to a short video chat for more complex or longer discussions
- It matters **how** you say something. Choose your words wisely.
 - Mind the guidelines
 - Three filters

Tips for Online Code Reviews: Add Emojis

- Effect of emojis is proven by science
- Effects:
 - Strengthen positive content
 - Weaken negative content
- Contribution of emojis in communication:
 - Make intent *readable* and understandable
 - Relationship care (make appreciation *visible*)



Monica A. Riordan: Emojis as Tools for Emotion Work: Communicating Affect in Text Messages. In: Journal of Language and Social Psychology. Michael Beißwenger, Steffen Pappert: Handeln mit Emojis. Grundriss einer Linguistik kleiner Bildzeichen in der WhatsApp-Kommunikation. UVRP, Duisburg 2019, ISBN 978-3-95605-069-5.

Michael Beißwenger, Steffen Pappert: Small Talk mit Bildzeichen. Der Beitrag von Emojis zur digitalen Alltagskommunikation. In: Zeitschrift für Literaturwissenschaft und Linguistik. Band 50, Nr. 1, 11. April 2017, ISSN 0049-8653, S. 89–114, doi:10.1007/s41244-020-00160-5.



Conclusion

The Human Aspects

Same side

Be humble

I-Messages

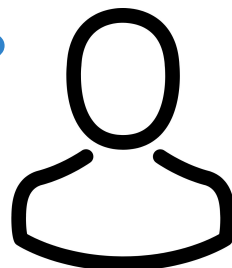
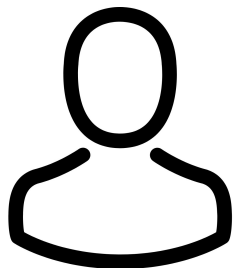
Asks Questions

You != Your Code

True?
Necessary?
Kind?

Talk about the code

New perspective



Talk about the behavior

Author

Reviewer

Mindset

Phrasing & Mindset

Accept different solutions

Mind the IKEA effect

OIR-Rule

Don't jump in front of every train

Be thankful

Knowledge exchange

Praise!

This Talk as a Blog Post

Philipp Hauer's Blog

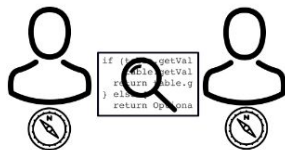
Java Ecosystem, Kotlin, Distributed Systems, Sociology of Software Development



Code Review Guidelines for Humans

POSTED ON JUL 31, 2018. UPDATED ON SEP 23, 2019

Code reviews are powerful means to improve the code quality, establish best practices and to spread knowledge. However, code reviews can come to nothing or harm interpersonal relations when they are done wrong. Hence, it's important to pay attention to the human aspects of code reviews. Code reviews require a certain mindset and phrasing techniques to be successful. This post provides both the author and the reviewer with a compass for navigating through a constructive, effective and respectful code review.



TL;DR

You !=

Be humble

True?

I-Messages

Ask Questions

TL;DR

Code Reviews Guidelines For the Author

Be Humble

You Are Not Your Code

You Are on the Same Side

Mind the IKEA Effect

New Perspectives On Your Code

Exchange of Best Practices and

Experiences

Code Reviews Guidelines For the Reviewer

Use I-Messages

Talk About the Code, Not the Coder

Ask Questions

Refer to the Author's Behavior, Not Their Attributes

Mind the OIR-Rule of Giving Feedback

Accept That There Are Different Solutions

Don't Jump in Front of Every Train

Praise

The Code Review Cheat Sheet

Rules For the Author

Rules For the Reviewer

Further Reading

<https://phauer.com/2018/code-review-guidelines/>

Do you have any
questions?

Thank you!