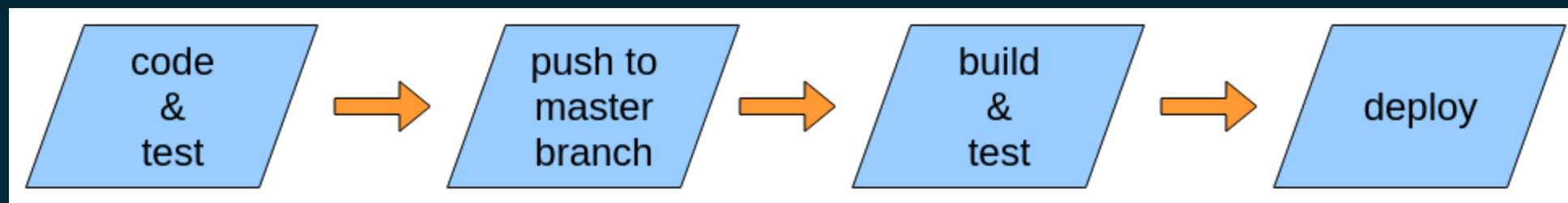


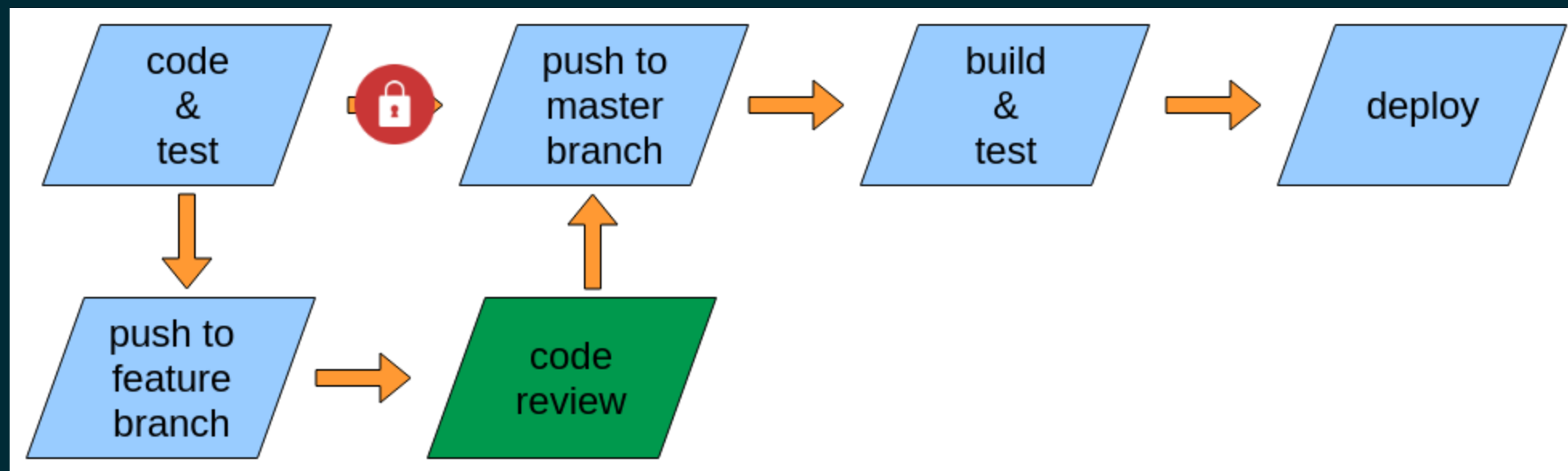
# **THE ANATOMY OF A CODE REVIEW**

**GUILHERME GARNIER**

# A TRADITIONAL CI PIPELINE



# ADDING CODE REVIEW



# WHAT'S A CODE REVIEW?

A tool to:

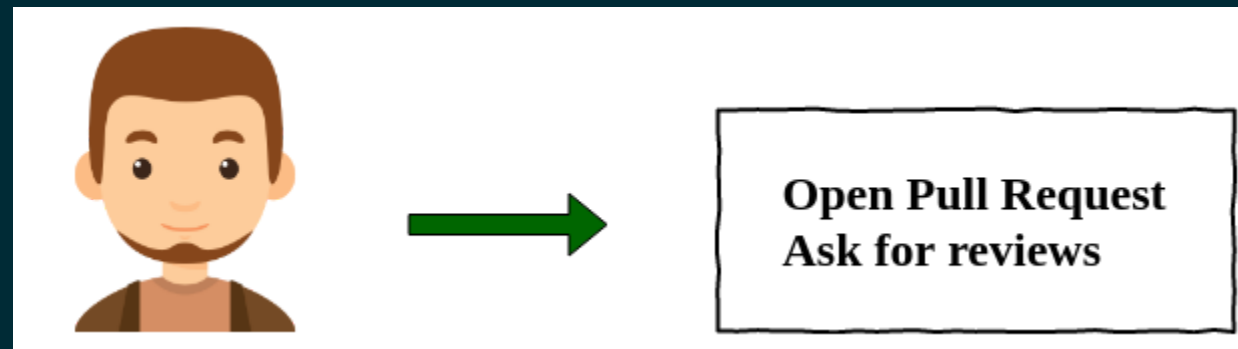
- improve code quality
- share knowledge about the project
- share knowledge about technologies, libraries, etc

# CODE REVIEW WORKFLOW

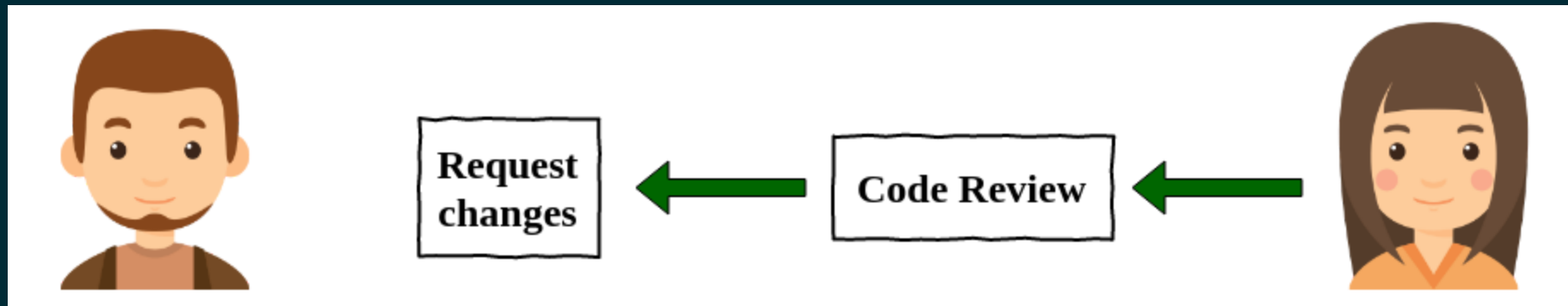


```
git checkout -b bugfix-branch  
# implement code & tests  
git commit  
git push
```

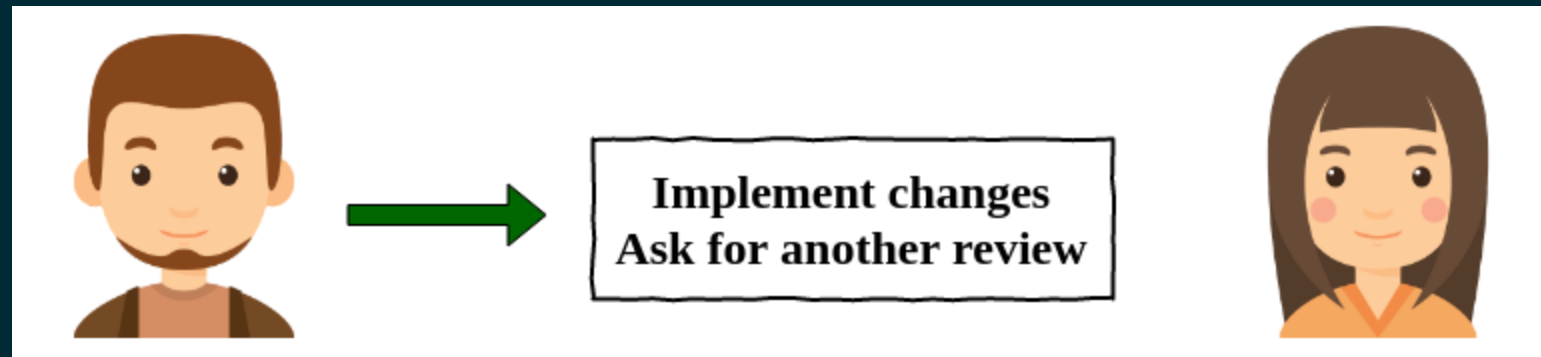
# CODE REVIEW WORKFLOW



# CODE REVIEW WORKFLOW

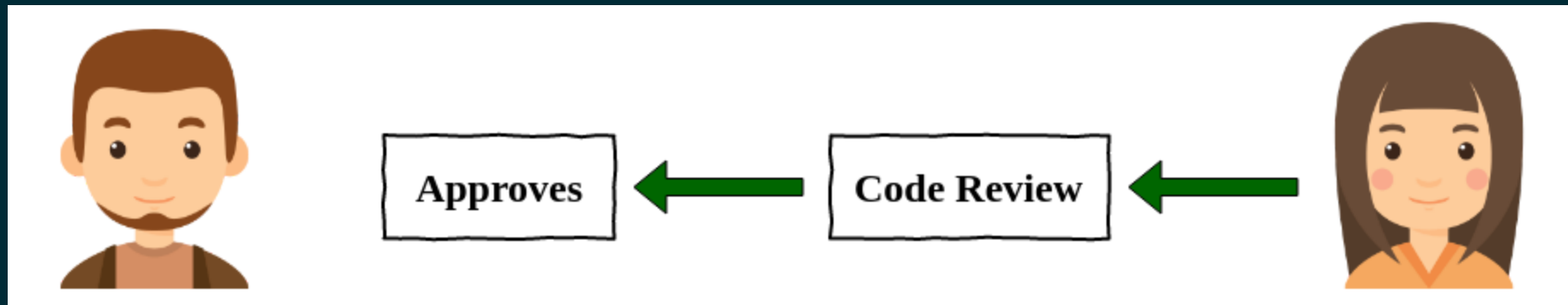


# CODE REVIEW WORKFLOW

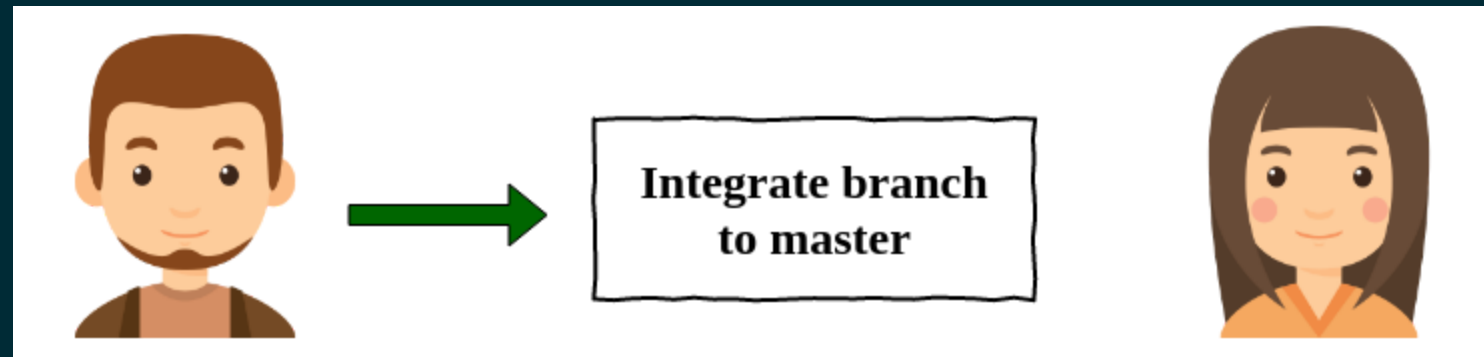




# CODE REVIEW WORKFLOW



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# CODE REVIEW CHECKLIST

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# CODE REVIEW CHECKLIST

- Does the code do what it's supposed to do?
- Is it bug free?
- Is it expressive?
- Is it scalable?
- Does it follow the projects conventions and standards?
- Is it well tested? Does it handle corner cases?

# BENEFITS

- to the code author
- to the reviewer
- to the team

# BENEFITS TO THE CODE AUTHOR

# BENEFITS TO THE CODE AUTHOR

- Learn about the project

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- Learn about the project
- Learn about the technologies involved

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- Learn about the project
- Learn about the technologies involved
- Learn other ways to solve problems

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- Learn about the project
- Learn about the technologies involved
- Learn other ways to solve problems
- Learn to accept critics

# **BENEFITS TO THE REVIEWER**



# BENEFITS TO THE REVIEWER

- Learn about the changes

# BENEFITS TO THE REVIEWER

- Learn about the changes
- Learn about the project

# BENEFITS TO THE REVIEWER

- Learn about the changes
- Learn about the project
- Learn about the technologies involved

# BENEFITS TO THE REVIEWER

- Learn about the changes
- Learn about the project
- Learn about the technologies involved
- Develop a critical view of someone else's code

# BENEFITS TO THE TEAM

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- Shared code ownership

# BENEFITS TO THE TEAM

- Shared code ownership
- Helps keeping standards

# STARTING CODE REVIEWS

Each PR should be a cohesive unit

- easier to get context
- easier to revert, if needed



# STARTING CODE REVIEWS

Readability is very important

- make you code/test/docs as clear as possible
- add context do your PR description (images, link to issues)

# STARTING CODE REVIEWS



Make PRs as small as possible




Classic, right?



# RECEIVING CODE REVIEWS


- Be humble and thankful
- Start discussions when needed

 felipemsantana approved these changes on Jun 5 [View changes](#)



etc/sites-enabled/www\_jusbrasil.conf Outdated  Hide resolved

|     |     |                      |  |
|-----|-----|----------------------|--|
| ... | ... | @@ -264,6 +264,11 @@ | server {   |
| 264 | 264 |                      | proxy_pass \$processos_upstream;                 |
| 265 | 265 |                      | }  |
| 266 | 266 |                      |  |
| 267 |     | +                    | location /topicos/\d+/.+/(historico organizar) { |

 felipemsantana (Felipe Matos Santana) on Jun 5  ...


Suggested change 

|   |   |
|---|---|
| - | location /topicos/\d+/.+/(historico organizar) {        |
| + | location /topicos/\d+/[a-z0-9]+/(historico organizar) { |

 ggarnier 29 days ago Author  ...

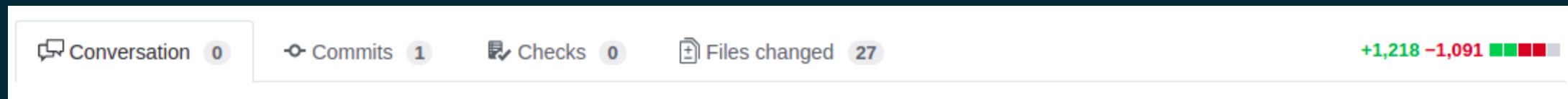
How about other characters in the slug, like in

`https://www.jusbrasil.com.br/topicos/26413176/dano-moral ?`

 1


# REVIEWING CODE REVIEWS

Take time to review, don't rush





# REVIEWING CODE REVIEWS

Watch for details

**cuducos** reviewed on Apr 30 [View changes](#)

scripts/merge\_topics/elasticsearch\_title\_topics.py Outdated  Hide resolved

|     |     |  |
|-----|-----|--|
| ... | ... | @@ -71,6 +74,7 @@ def main():                      |
| 71  | 74  | except Exception as e:                             |
| 72  | 75  | logger().error(e)                                  |
| 73  | 76  | finally:   |
|     | 77  | i += 1   |
| 74  | 78  | saved.append(line)                                 |
| 75  | 79  | + saved_file = open("lawsuit_cnj_title.json", "w") |

**cuducos** (Eduardo Cuducos) on Apr 30  ...


It think it's better to use a context manager (so it opens *and* closes the file):

```
with open("lawsuit_cnj_title.json", "w") as saved_file:  
    json.dump(saved, saved_file, indent=2)
```

 1

# REVIEWING CODE REVIEWS



Don't be limited to critics, recognize good decisions




**leogamas** (Leonardo Gamas) commented yesterday

+ 😊 ...

No description provided.

 Replace requirements with pipenv

✓ 795d3b2
















✓ **joctaTorres** approved these changes yesterday


View changes

**joctaTorres** (Jocã Torres) left a comment

+ 😊 ...



✓✓✓✓✓



✓ **EvertonTomalok** approved these changes 22 hours ago

View changes

**EvertonTomalok** (Everton Tomalok) left a comment

+ 😊 ...

The sacred monster also called as "Leo". 👍

test/components/copy-content-trigger.js

Outdated

Hide resolved

```
126 +  
127 + // eslint-disable-next-line max-len  
128 + it('should not return viewer modalData if user can\'t use feature but lo  
129 +   const root1 = { root: { document: { viewerCanUseFeature: false }, view
```



marciovicente (Márcio Vicente) 9 days ago



+ 😊 ...

root1 ??



# REVIEWING CODE REVIEWS

In case of doubt, ask

 **ggarnier** approved these changes 22 days ago [View changes](#)

src/components/topic-law-reference/index.jsx

2223

}


= topic;

2324

25

+

const anchor = [referenceLawAnchor, lawAnchor].join('');

 **ggarnier** 22 days ago + 😊 ...  
I think this would be a little clearer:

Suggested change ⓘ

25


-


const anchor = [referenceLawAnchor, lawAnchor].join('');

25

+

const anchor = referenceLawAnchor + lawAnchor;

 **marciovicente** (Márcio Vicente) 22 days ago Author + 😊 ...  
'https://foo.com' + null will result https://full.comnull

 1



# COMMON PROBLEMS AND CONCERNS

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- Won't this slow me down?

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# COMMON PROBLEMS AND CONCERNS

- Won't this slow me down?
- How to handle large pull requests?
- How many reviewers do I need?
- Do I need code reviews if I pair program?
- When not to use code reviews?

# LINKS

- <https://blog.guilhermegarnier.com/2018/05/the-anatomy-of-a-code-review/>
- <https://speakerdeck.com/asendecka/anatomy-of-a-code-review>
- <https://pagefault.blog/2018/04/08/why-junior-devs-should-review-seniors-commits/>

# THANK YOU!

<https://blog.guilhermegarnier.com>

 @gpgarnier

Slides: <https://blog.guilhermegarnier.com/talk-code-review/>