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WHEN YOU START A NEW GROUP PROJECT



It's new opportunity. You feel like a hero!

It's gonna be the best project!!

BUT MOST OF THE TIME IT ENDS UP LIKE ...







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THE MORE THE DEVELOPERS, THE MORE THE CODE STARTS LOOKING LIKE A FRUIT SALAD

- Your peers (or you) may introduce bugs that go unnoticed
- The requirements are not fulfilled

Everyone uses a different coding style

Bad coding practices



WHAT IS A CODE REVIEW?

The different methods of code review ☆



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"Code review is systematic examination of computer source code.

It is intended to find and fix mistakes overlooked in the initial development phase.

It improves both the overall quality of software and the developers' skills"







TERMINOLOGY

□ Reviewer : A person who reviews the code

It helps developers to maintain consistency between design and implementation "styles" across many team members and between

design and implementation of features.

Code review is the most commonly used procedure for validating the

various projects on which the company is working.

When a developer is finished working on an issue, another developer looks over the code and considers questions like:

- □ Are there any obvious logic errors in the code?
- □ Looking at the requirements, are all cases fully implemented?
- □ Does the new code conform to existing style guidelines?
- Has the developer used good coding standards?

BENEFITS TO THE CODE AUTHOR

- Learn about details of the project he has missed
- Find out his mistakes pointed out by the reviewer
- Learn other ways to solve problems
- Learn about good coding standards and team coding guidelines
- Learn to accept critics

BENEFITS TO THE REVIEWER

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

BENEFITS TO THE TEAM

- □ Shared code ownership
- Helps keeping standards



HOW DO YOU DO A CODE REVIEW

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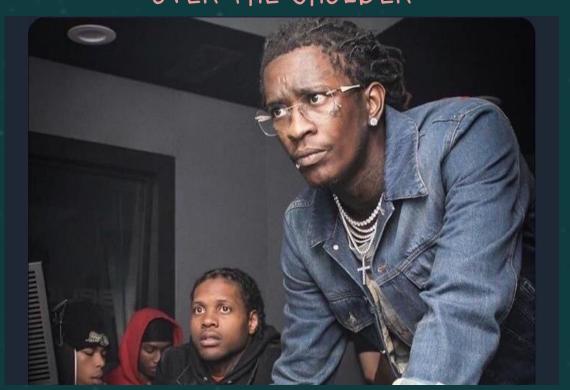
FORMAL CODE REVIEW MEETINGS



FORMAL CODE REVIEW MEETINGS

- A sit down
- Everyone looks at the code
- Need to get prepared in advance
- People bring up issues that need to be fixed before you can go ahead with commit

OVER THE SHOLDER



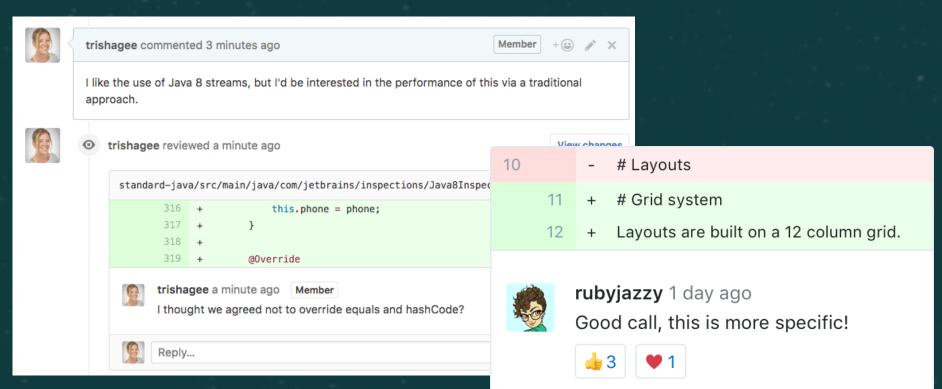
E-MAIL PASS AROUND



PAIR PROGRAMMING



TOOL ASSISTED REVIEWS





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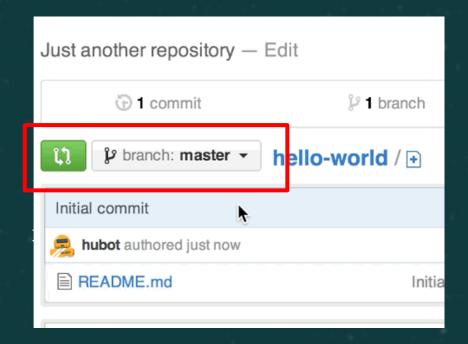
"PULL REQUESTS"

Git Terminology: PULL REQUESTS

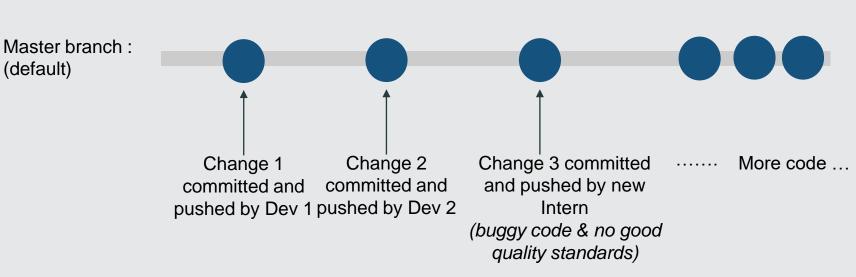
- Pull requests let you tell others about changes you've made to the project in a repository on GitHub.
- These changes are in a branch of it's own.
- Once a pull request is opened, you can discuss and review the potential changes with collaborators and add follow-up commits before your changes are merged into the main branch.

Git Terminology : BRANCHES

- Whether you realize it or not, you have already been working with Branches.
- Whenever you initialize a Git repo, it by default creates a branch called 'master' inside the repo.
- This is the main branch of your repo and should contain only the most final versions of your code.
- Basically, this branch is the most stable of all branches



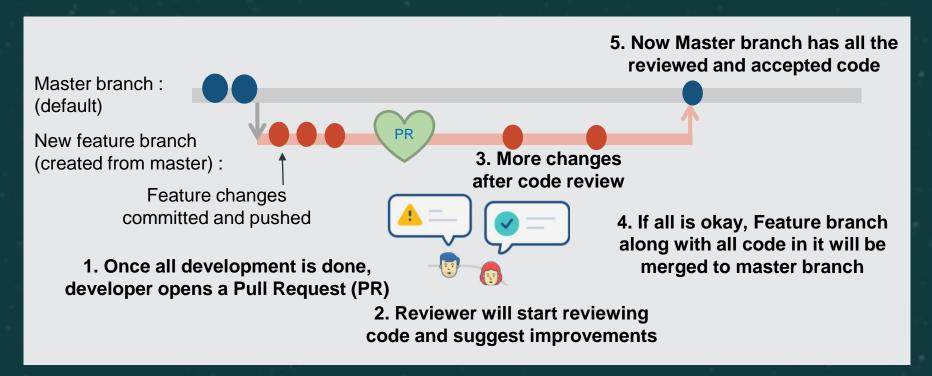
NORMAL GIT WORKFLOW



Master branch has code which is not up to the standards and if sent into production could result in errors and pissing off customers!

CHANGING THE WORKFLOW TO ALLOW CODE REVIEWS TO HAPPEN (USING PULL REQUESTS)

WORKFLOW WITH PULL REQUESTS



REFERENCES

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- https://www.atlassian.com/agile/software-development/code-reviews