

Code Review

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The idea

Have developers do a manual inspection of the code written by others

The benefit of code review

- Improves the **reliability, maintainability** and **readability** of the code
- Improves the **best practices** and **expertise** of the team members

Code review process

1. As a team, **define the code review strategy**
 - ➔ identify what to look for during the code review
 - ➔ Identify who is going to review what
2. Individually, **inspect the code**
 - ➔ identify what needs to be fixed and provide specific feedback
3. As a team, **debrief about the code review outcome**
 - ➔ identify general recommendations for the team
 - ➔ refine the code review strategy

Good practices for code review

- Have a checklist of things to review
- Review 200 loc per session (400 max)
- Review should take around 1h per session
- Take a long break between sessions
- Write down things that need to be fixed plus feedback/recommendations for the other developer

What to look for in the code review?

- Readability and Maintainability
- Code design
- Functionality
- Testing

Readability and Maintainability

- Can I understand the code reading it?
- Is the documentation good enough?
- How is the coding style?
- Do we follow appropriate naming conventions?
- Do we have bad copy'n paste of code?
- Do we use constants whenever it is possible?

Design

- Does the code corresponds to our original design?
- Does the code follows the SOLID principles?
- Can we better structure the code using design patterns?

Functionality

- Can I understand what the code does?
- Does the code do what it is supposed to do?
- Is there some dead code or unnecessary debug statements?
- Do we handle the exceptions and errors correctly?

Testing

- Can I understand what the tests do?
- Do I understand the tests results?
- Do we have a good test coverage?