Evaluation of Modern Code Review in a Research Environment

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Continuous Analysis of Many CAMeras

Vertically Integrated Projects

Motivation

- There is a consistent difficulty in merging features.

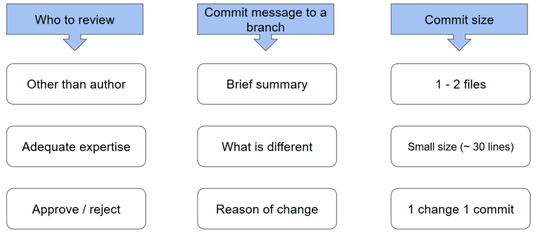


Figure 1: Proper pull request procedure

- A workshop teaching proper code review techniques would help mitigate these issues.

Figure 2: Code reviewer responsibilities

Objectives

- To train researchers on how to properly review code

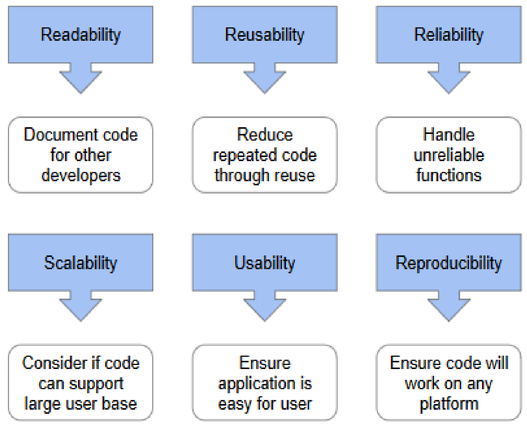


Figure 3: Proper code review ideology

Methods

- Organize the workshop into seven categories.

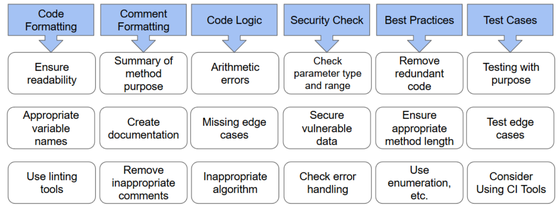
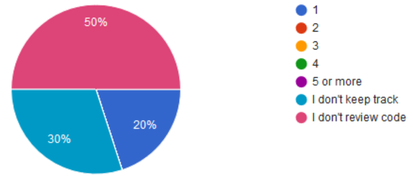


Figure 4: Code review checklist

- Survey the participants on their prior knowledge of code review.
- Use the feedback from the survey to design next workshop.

Results

How many code review sessions do you typically have per week?



Approximate how long you spend preforming a code review per review session? (on average)

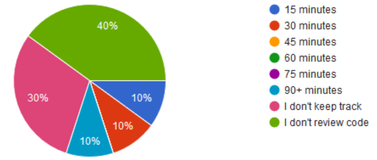


Figure 5: Survey results

- Many participants do not review code regularly or do not keep track of important metrics while reviewing.
- Several answers indicate that there is no uniform process for reviewing code.

Figure 6: March CAM2 Workshop Attendees

Conclusions

- Most of the research teams do not have a proper code review routine.
- There is currently no standard reviewing technique that members must abide by.
- Based on observations during the workshop, the attendees appeared to be learning new skills

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