CS499 Capstone

2-1 Journal

What makes a productive code review?

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**What is code review?**

Essentially, a code review is an evaluation of a coding project to analyze where it can be improved for functionality. This is done during the development phase of a project. This is a great way to improve on code and fix any errors that undermined the functionality of the previous code.

**Why is it an important practice for computer science professionals?**

As I prepare for my role as a commissioned officer in the Air Force, I thought about how code reviews would be essential in my work. I think of how could this open vulnerability in our system? Or is this code secure enough for the US military? This is an important practice for professionals as it keeps code secure and allows it to be updated as needed.

**What are some code review best practices that you read about in the resources that are crucial to include in a code review? Include when a code review should occur in the development process with a rationale as to why.**

When performing a code review, it is best to focus on functionality, code structure, and how well the code tests. “A successful peer review strategy requires balance between strictly documented processes and a non-threatening, collaborative environment. Highly regimented peer reviews can stifle productivity, yet lackadaisical processes are often ineffective” (*Best Practices for Peer Code Review*, n.d.). A review should be flexible and rely on feedback to improve and be consistent. It’s about having clarity and what best matches the checklist.

**What software have you chosen to use to record your code review?**

I have chosen to use my iPhone to record my code reviews, as I used my dad’s Windows to complete my work. I am not sure how to record videos on it yet, so I may switch to using the computer itself to record. I have a MacBook and was unable to complete some of my coding assignments with it do to it being incompatible with coursework.

**Describe your approach to creating an outline or writing a script for your code review for each of the three categories that you will be reviewing, based on the rubric as well as the code review checklist.**

My first step is to understand the purpose of the code I want to enhance and research methods to best suit my needs. I want to ensure my code is clear and functional, with space for added features if needed in the future. I also need to run tests to make sure errors are handled correctly, to ensure the code is functioning as I need it to. I would also add in comment to give a brief description of what was updated so I can keep track of my code. These would also make sure that my loops and branches are enclosed. I need to ensure my code’s functionality first and foremost, with additional time to test and review each section for the best outcome.

Reference:

*Best Practices for Peer code Review*. (n.d.). smartbear.com. https://smartbear.com/learn/code-review/best-practices-for-peer-code-review/