Southern New Hampshire University

CS-499-T4251 Computer Science Capstone

2-1 Journal: What Makes a Productive Code Review?

Priscilla Gomes-DaCosta

3/12/23

Code review is computer source code systematic examination, where peers look at your code and offer feedback with the intention of identifying security flaws related to features and design where traditional ways of testing may fail. Source code is audited to verify proper security and logical controls are present, working as expected, and being invoked at the right places. Code review can help determining mitigation techniques to remedy security flaws, while allowing companies to assure developers are following secure development techniques, combining human effort and technology support. Catching errors before they’re introduced into production, resulting in a cheaper and easier bug fixes, while maintaining a level of consistency in design and implementation, building the confidence of stakeholders, a different perspective in recognizing problems.

Code reviews should be done promptly, and it should judge whether the implementation includes bugs. Best practice steps include checking for functional requirements, while taking in consideration any side effects to any changes, concurrency to ensure the code is thread-safe, while ensuring the code is readable, maintainable, flexible, handling error and exception properly. Coding standards keeps the code consistent and simple making projects easier to be worked on by a group of developers.

References

*Code review guidelines*. (2013, January 8). CodeProject - For those who code. https://www.codeproject.com/Articles/524235/Codeplusreviewplusguidelines

OWASP Foundation, the Open Source Foundation for Application Security | OWASP Foundation. https://owasp.org/www-project-code-review-guide/assets/OWASP\_Code\_Review\_Guide\_v2.pdf

SPK Blog Post. (2022, July 10). *Software engineering best practices: Code reviews – Part 1*. SPK and Associates. https://www.spkaa.com/blog/software-engineering-best-practices-code-reviews-part-1