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CS 320 Module 8 Journal

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08/25/2024

How Can I Ensure That My Code, Program, or Software Is Functional and Secure?

Ensuring that my code, program, or software is both functional and secure starts with a robust development process that includes comprehensive testing, code reviews, and adherence to best practices. I focus on writing clean, maintainable code that is easy to understand and modify. This involves using tools like OWASP Dependency-Check to identify and mitigate security vulnerabilities early in the development process. Regularly updating dependencies and keeping abreast of the latest security practices helps ensure that the software remains secure over time.

How Do I Interpret User Needs and Incorporate Them Into a Program?

Interpreting user needs and incorporating them into a program requires active communication with stakeholders. I make it a priority to listen to their requirements, ask clarifying questions, and translate those needs into technical specifications. This often involves creating user stories or use cases that capture the core functionalities and desired outcomes from the user's perspective. By maintaining a close relationship with the end-users, I can iterate on their feedback and ensure that the program evolves in line with their expectations.

How Do I Approach Designing Software?

When approaching software design, I begin by thoroughly understanding the problem domain. I break down the requirements into smaller, manageable components and choose the right tools and technologies that align with the project's goals. I aim to create a modular, scalable design that can adapt to future changes without significant rework. Throughout the design process, I prioritize security and performance, ensuring that the final product is not only functional but also robust and resilient against potential threats.

Incorporating these practices into my daily work ensures that I deliver high-quality software that meets user needs and stands the test of time. By staying engaged with the user base and continually refining my approach to security and design, I strive to create software that is both effective and trustworthy.