Week 12 Research

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TDD primarily focuses on testing at the unit level. Developers write tests for individual units of code (e.g., functions or methods) before implementing the corresponding code. The goal is to ensure that each unit functions as expected and that any changes or additions to the codebase don't introduce regressions. BDD has a broader focus that extends beyond unit testing. It emphasizes collaboration between developers, QA (Quality Assurance) professionals, and non-technical stakeholders (such as product owners). BDD scenarios are often written in a natural language that describes the expected behavior of the system from an end-user perspective. While TDD is more focused on unit testing and is developer-centric, BDD takes a broader approach, emphasizing collaboration between different roles and providing a way to express system behavior in a human-readable format. Both methodologies aim to improve code quality and reduce defects but target different aspects of the development process.

Avoiding the inclusion of credentials in plaintext in your code is a security best practice for several reasons. Storing sensitive information, such as usernames and passwords, directly in source code exposes these credentials to potential security risks. If an unauthorized person gains access to your source code, they could easily extract and misuse these credentials. Many compliance standards (such as HIPAA) and security best practices explicitly recommend avoiding the storage of sensitive information, like credentials, in plaintext within the codebase. To address these concerns, a common practice is to store credentials in secure configuration files, environment variables, or use specialized credential management solutions. This separation of credentials from the code helps enhance security, maintainability, and compliance with security standards. Additionally, it allows for more flexible and secure deployment processes, such as continuous integration/continuous deployment pipelines.

<https://testrigor.com/blog/tdd-vs-bdd-whats-the-difference-between-tdd-and-bdd/>

<https://www.theserverside.com/feature/How-to-remove-plain-text-passwords-for-a-secure-Java-code-base>