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Discussion 7.1

Web 340

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[Since code is a process where errors can occur frequently, testing is an important step. Test-driven development (TDD) is a development life cycle in which tests are written before implementation[Chapsas]. As explained by Nick Chaspas, there can be three nodes, for example, the fail node, pass node and refactor node. The first node tests for a specific behavior or requirement in the program. Writing the minimal amount of code, the second node (pass) aims at writing sufficient code for the test scenario to pass. When the test passes, refactor the code when applicable to make it cleaner and readable. This cycle is repeated until tests are passed.](https://seanmcgary.com/posts/how-to-structure-a-nodejs-express-project)

TDD focuses on unit testing and the process can be automated. In this methodology, a single test can be written even before the application is made. The value of TDD provides clarity and direction while writing classes and methods that involve scope. There is also more focus on building code that can pass other tests like unit testing. The key is to write code that is driven by tests[Govender].

For example, starting the application we start with the red (fail) step. We can check if a class, file, or value exists in the application even before having created the file. Since the first step fails as it should, we create our file and begin writing as minimal code as possible. In this second (passing) step, we may write just an empty function and check if the test passed[Galvanize]. Within refactoring the function, we clean up the code and correct any design patterns we may aiming for.

Reference List

Chaspas Nick. "Test Driven Development (TDD) – Tutorial for Beginners." YouTube. 5 September 2019.

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Govender Reval. "What is Test Driven Development (TDD) Tutorial. YouTube. 8 August 2016.

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