



TDD

Learning TDD for the first time

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Agenda

Background

What is TDD?

TDD - Rules and guidelines

TDD - Advantages

TDD – Disadvantages

TDD – Personal takeaways



Background

- Worked with IT for 20 years
- My first experience with TDD
- Some experience with automated testing, depending on the project.
- Keen on learning more



What is TDD

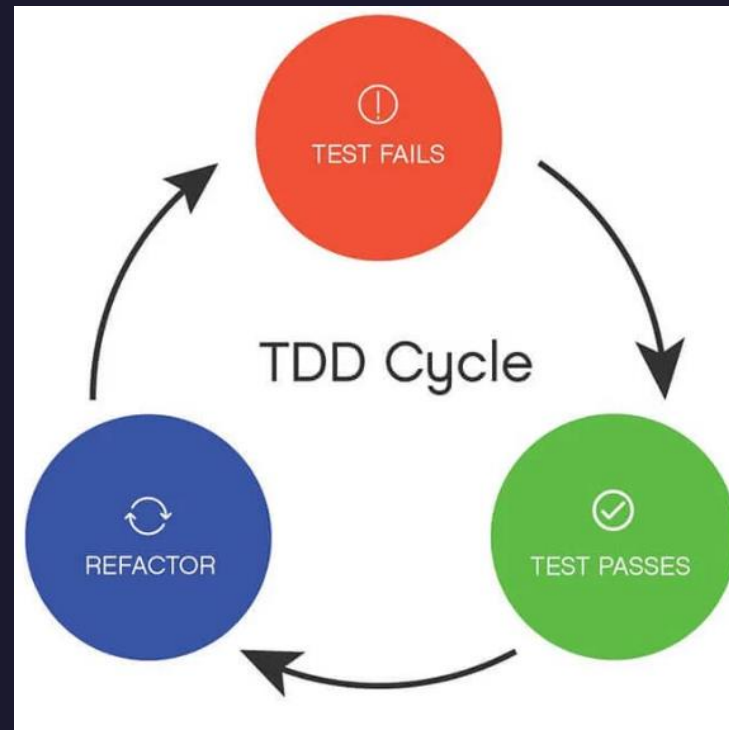
Test-driven development (TDD) is a software development process relying on software requirements being converted to test cases before software is fully developed, and tracking all software development by repeatedly testing the software against all test cases.

TDD – Rules and guidelines

TDD – Rules and guidelines

The TDD basic idea relies on working in a cycle (known as TDD-cycle). The cycle consists of 3 stages:

1. Creating a test (RED – test fails)
2. Adding a code required to pass the test (GREEN – test passes)
3. Refactoring (BLUE)



TDD – Rules and guidelines

TWO RULES OF TDD (BY KENT BECK)

1. Don't write a line of new code unless you first have a failing automated test
2. Eliminate duplication

Rule of three:

Extract duplication only when you see it for the third time!

THE THREE LAWS OF TDD BY UNCLE BOB

1. You are not allowed to write any production code unless it is to make a failing unit test pass
2. You are not allowed to write any more of a unit test that is sufficient to fail, and compilation failures are failures
3. You are not allowed to write any more production code that is sufficient to pass the one failing the unit test

TDD – Rules and guidelines

- Test behaviour – NOT implementation
 - Try to find the most basic behaviour
- Walking backwards
 - Start with assertions, then more and more specific tests
- Commit and refactor often!

TDD – Advantages

- Higher quality applications in less time
- Creates a set of regression tests (find and fix issues quicker)
- Less time debugging
- Continuous delivery – trust the code

TDD – Disadvantages

- Requires considerable skill to be used successfully
- Can be time consuming, at least initially
- Many legacy systems are hard to test



Personal takeaways

- First time doing any sort of Mob programming. Both fun and challenging.
- In addition to learning about TDD, I also learnt about good coding practices in general.
- Great to have some tools to help breaking things down.
- Keen on trying some of the methods I have learned in my day to day work.
- Good help and clear explanations by the instructors along the way.

Thank You

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