What is Test Driven Development (TDD)

Red, Green, Refactor

The red, green, refactor approach helps developers compartmentalize their focus into three phases:

Red — think about what you want to develop

Green — think about how to make your tests pass

Refactor — think about how to improve your existing implementation

The 5 Steps of TDD

1. **Write tests**
   Begin with writing tests, just enough to fail.
2. **Run the tests**
   Make sure that the new ones fail
3. **Write the "actual code"**
   Just enough to satisfy the tests.
4. **Run tests again**
   This time makes sure they all pass
5. **Refactor and repeat**
   Make changes to the code

LEVEL UP

©2022

TDD Tips & Tricks

- Avoid unit tests for trivial getters/setters

- Don't test language builtins

- Use a standard variable name for your instance under test; e.g., `testObj`

- Start with a testInitialize, that checks construction post-conditions

- Look very carefully at the dependencies and seams in your code - as you'll likely need to inject dependencies (Test doubles) so that your tests can run in isolation