Discussion 7.1  
WEB-340  
Test-Driven Development (TDD)

***What is TDD?***

TDD, or Test-Driven Development is a technique for developing code. In general, it uses a method where you write the test before you write the program.

***Why is TDD important and what value does it add?***

The reason this is so important is because it allows you to write the minimum code necessary to meet you tests’ expectations without adding too much clutter to the program. Responding only to test failures ensures working code that isn’t broken and also minimal.

***What does red-green-refactor mean?***

Red-green-refactor means going through a testing process through those steps:

* Red:
  + Write a test that will fail.
* Green:
  + Respond to each test with minimal code JUST to pass that error.
* Refactor:
  + After tests are all green (or passing), inspect code and make changes to existing code (to do the exact same thing), and rerun test to ensure passing. If not passing, restart process until working. After tests for that function all work, continue to next net of code and run the whole process over again.

***Source:***

1. <https://www.youtube.com/watch?v=QCif_-r8eK4> 1
2. <https://www.youtube.com/watch?v=Y5XIjXcWaK8> 2