

Test First Teaching



& Test Driven Development

Humans Aren't Perfect

- ▶ Mistakes
- ▶ Unforeseen Collisions
- ▶ Bugs, Bugs, Bugs!

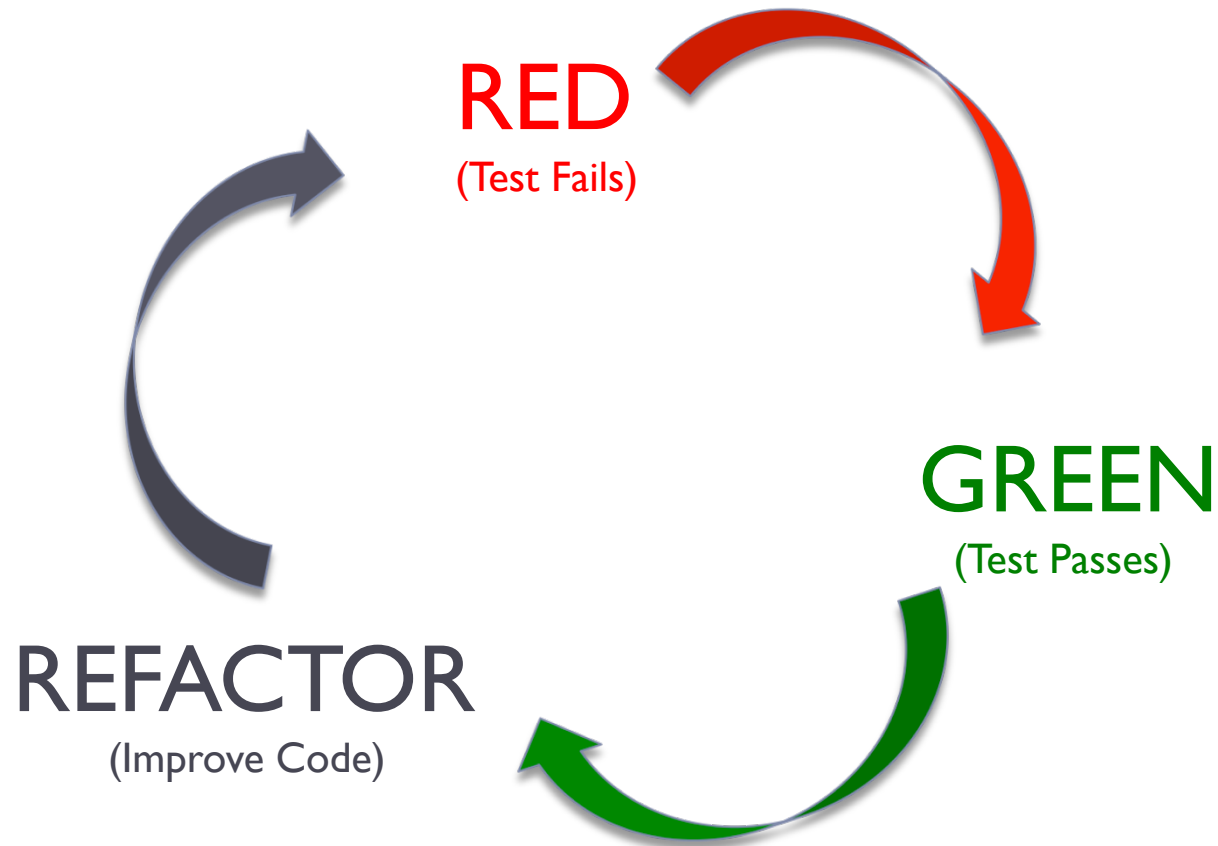


Testing: A Solution to Human Error

- ▶ Tests live together in a folder inside of your codebase
- ▶ Every time you add a feature, run the tests
- ▶ You can see if your new code broke any old code



Test Driven Development: TDD



Why TDD?

- ▶ **Design**

- ▶ Tests specify what behavior is desired of the code. To write a test, the programmer needs to think through how the code will implement a behavior. This leads to a well thought out code design.

- ▶ **Project management**

- ▶ A tight testing/code-writing cycle often leads to writing less wasted code.

- ▶ **Creation of tests**

- ▶ Programmers who don't use TDD often see tests as a chore to do as an afterthought, sometimes leading to tests not getting created.



Test First Teaching: TFT

- ▶ Teacher writes the test
- ▶ Student runs the test & watches it fail
- ▶ Student writes the code to make it pass

