

## Chapter 9 - Unit Tests

### Test Driven Development

#### The Three Laws of TDD

- **First Law** You may not write production code until you have written a failing unit test.
- **Second Law** You may not write more of a unit tests than is sufficient to fail, and not comipling is failing.
- **Third Law** You may not write more production code than is sufficient to pass the currently failing tests.

#### Clean Tests

If you don't keep your tests clean, you will lose them.

The readability it's very important to keep clean your tests.

#### One Assert per test

It's recomendable maintain only one asserts per tests, because this helps to maintain each tests easy to understand.

#### Single concept per Test

This rule will help you to keep short functions.

- **Write one test per each concept that you need to verify**

#### F.I.R.S.T

- **Fast** Test should be fast.
- **Independent** Test should not depend on each other.
- **Repeatable** Test Should be repeatable in any environment.
- **Self-Validating** Test should have a boolean output. either they pass or fail.
- **Timely** Unit tests should be written just before the production code that makes them pass. If you write tests after the production code, then you may find the production code to be hard to test.