

Software Engineering Methodology

Lecture 12 - Testing

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Topics

- Purpose of Testing
- Test Driven Development
- Behavioral Driven Design (BDD)

Software Testing...

- Is an empirical
- technical
- investigation
- conducted to provide stakeholders
- with *information*
- about the *quality*
- of the product or service under test

(Cem Kaner)

Test Driven Development

Repeat while employed

- Understand a requirement

- Write a test

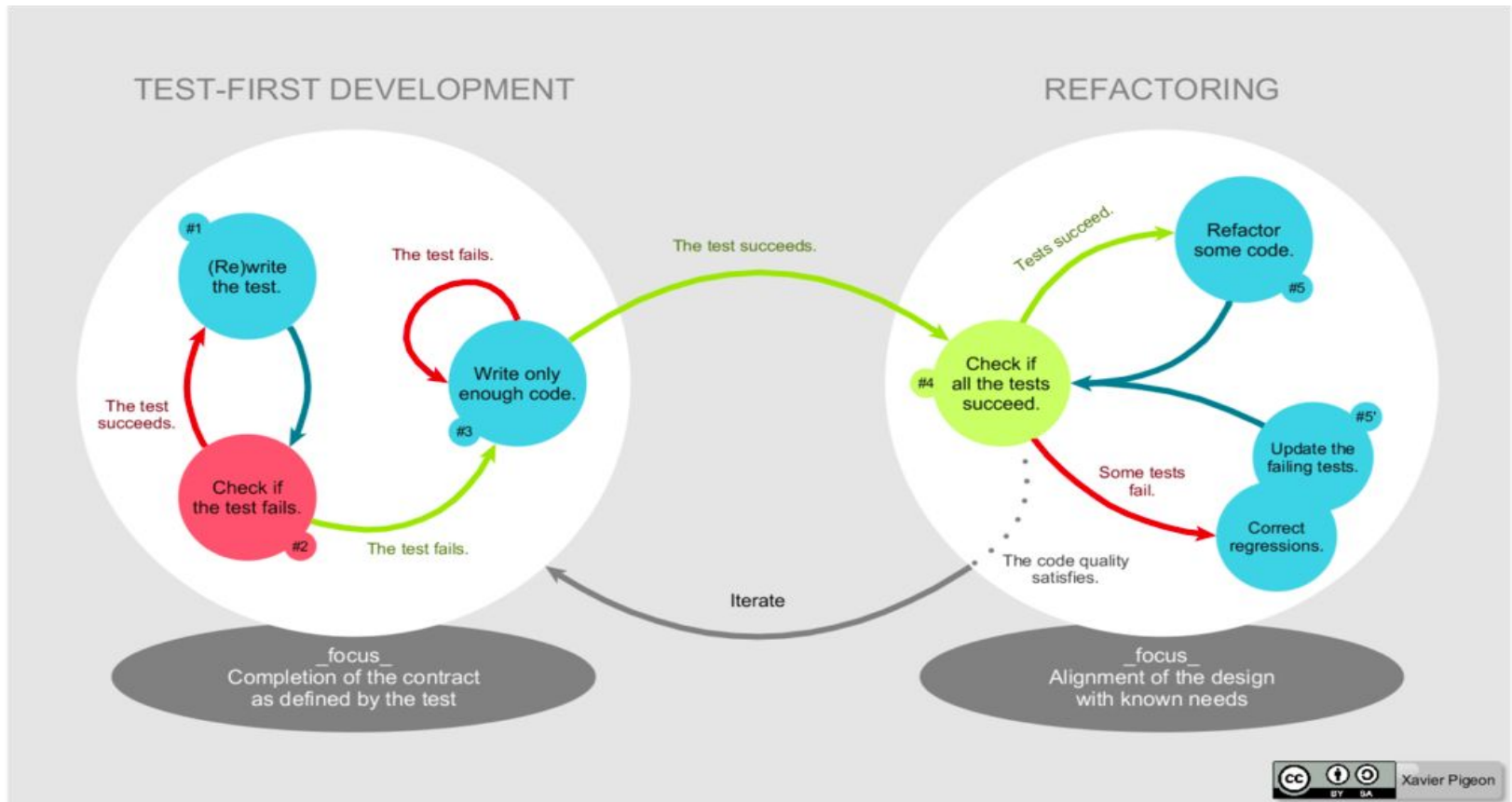
- Observe it fail ← permission to code

- Write code to make the test run

- Observe it working

- Repeat

The TDD Cycle



https://en.wikipedia.org/wiki/Test-driven_development

The Unittest Framework

Available under many languages

Unit test suites -- collections of tests

Unit tests -- individual tests

Framework to organize the tests

Python/Unittest -

<https://docs.python.org/3/library/unittest.html>

DEMO TIME

Python Requests

Used to make HTTP/HTTPS requests to web servers.

<http://docs.python-requests.org/en/master/>

WebDriver

Ability to connect to web GUI

Remotely operate a web browser

Can connect to lots of languages

<http://selenium-python.readthedocs.io/>

DEMO TIME