Test Driven Development

Dipping your toe into tests first

PHP Sussex - Wednesday 2nd October 2019

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@braddle
@testingAllThe

What?

What is TDD?

Writing test before code

Using test to design the application

Not just unit tests

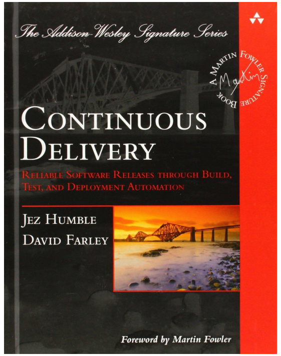
Why?

Why I do use TDD?

I DEPLOY ON FRIDAYS

(AND MAYBE YOU SHOULD TOO)

MICHIEL ROOK
@MICHIELTCS


The Addison-Wesley Signature Series

A Martin Fowler Signature Book

CONTINUOUS DELIVERY

RELIABLE SOFTWARE RELEASES THROUGH BUILD, TEST, AND DEPLOYMENT AUTOMATION

JEZ HUMBLE
DAVID FARLEY

Foreword by Martin Fowler

Boring

Tests are hard to write

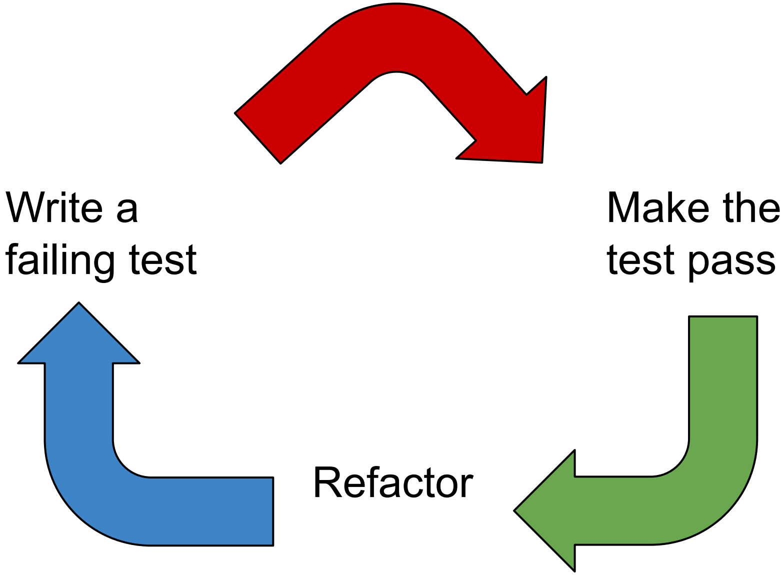
Easy to start skipping test

Fun!

Easy to write

You ~~don't~~ can't skip tests

TDD Cycle



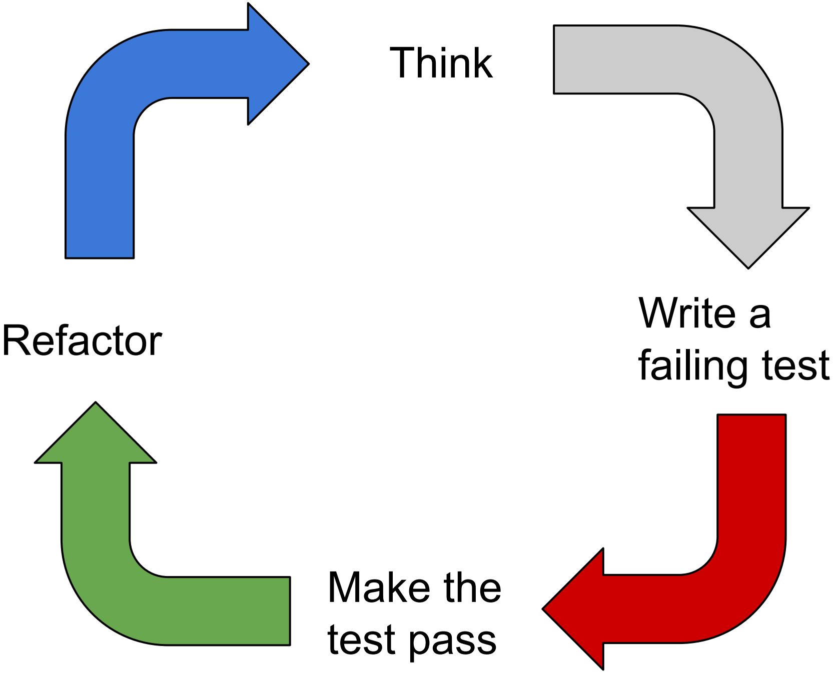
Write a failing test

Make the test pass

Refactor

Does it slow down development?

TDD Cycle

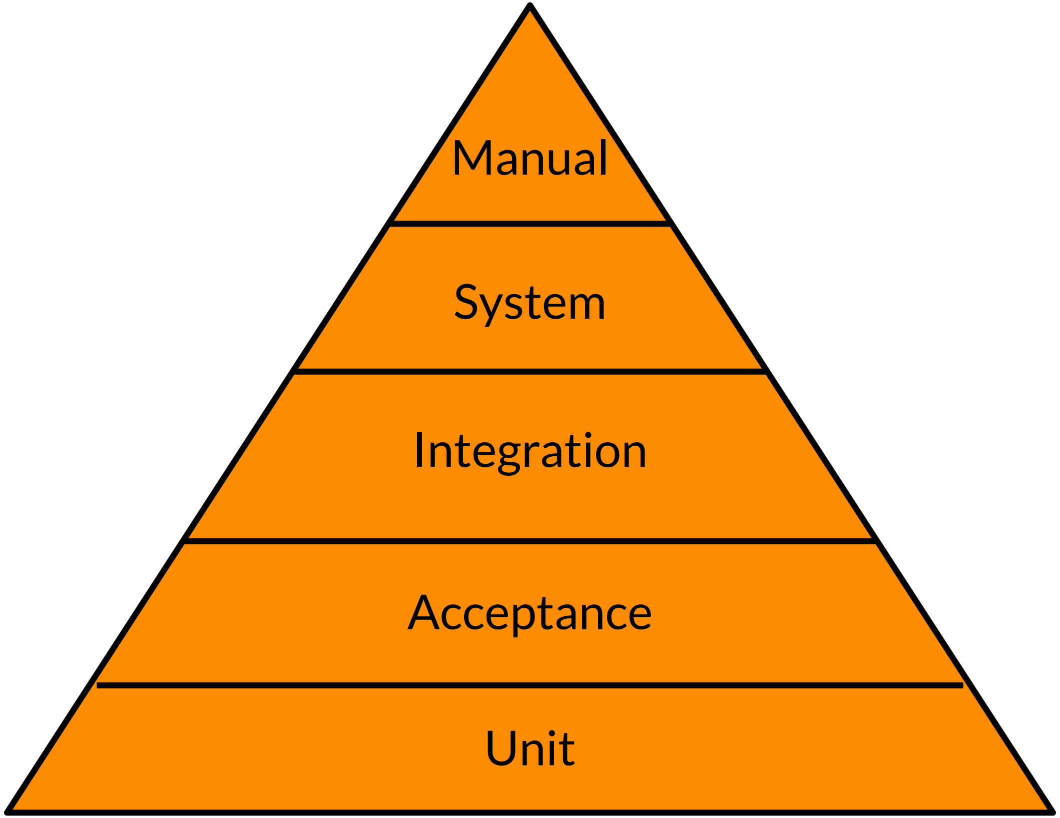


3 Rules of TDD

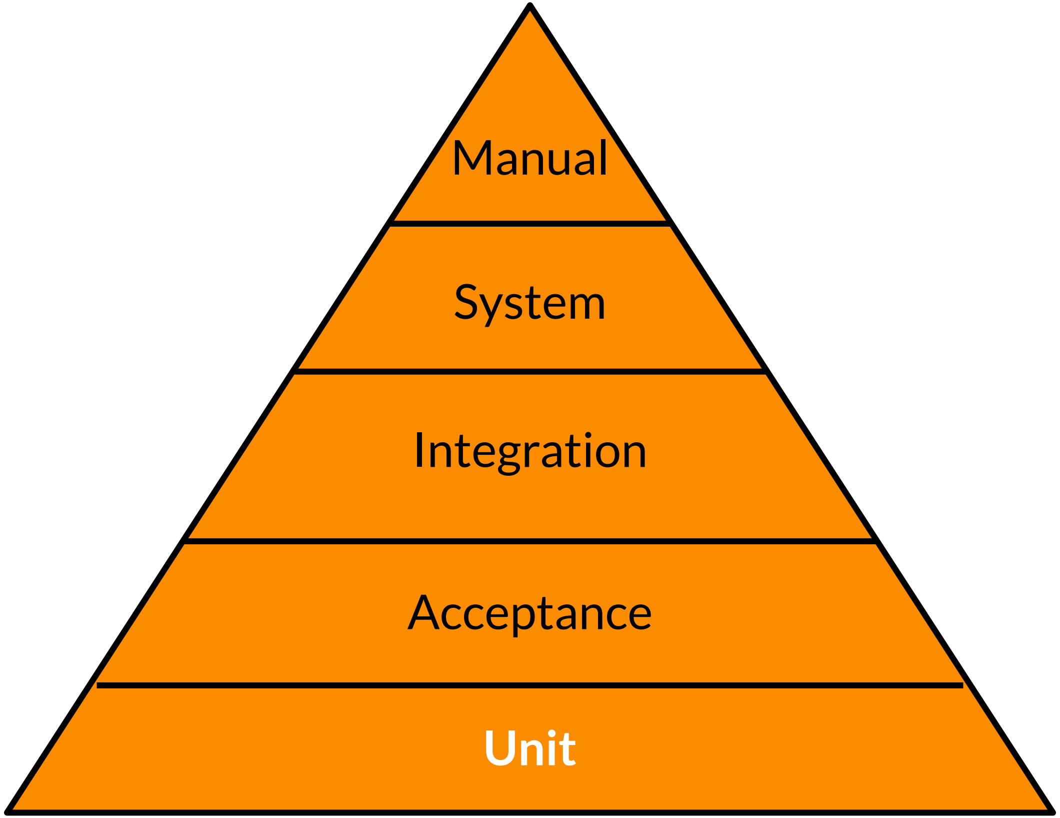
1. Write no production code until you write a failing test.
2. Do not write more of a test than to make the test fail (compilation error are test failure).
3. Do not write more production code than is enough to make the test pass.

- Uncle Bob

Testing Pyramid



Unit Tests


Manual

System

Integration

Acceptance

Unit

Unit Tests

Targeted

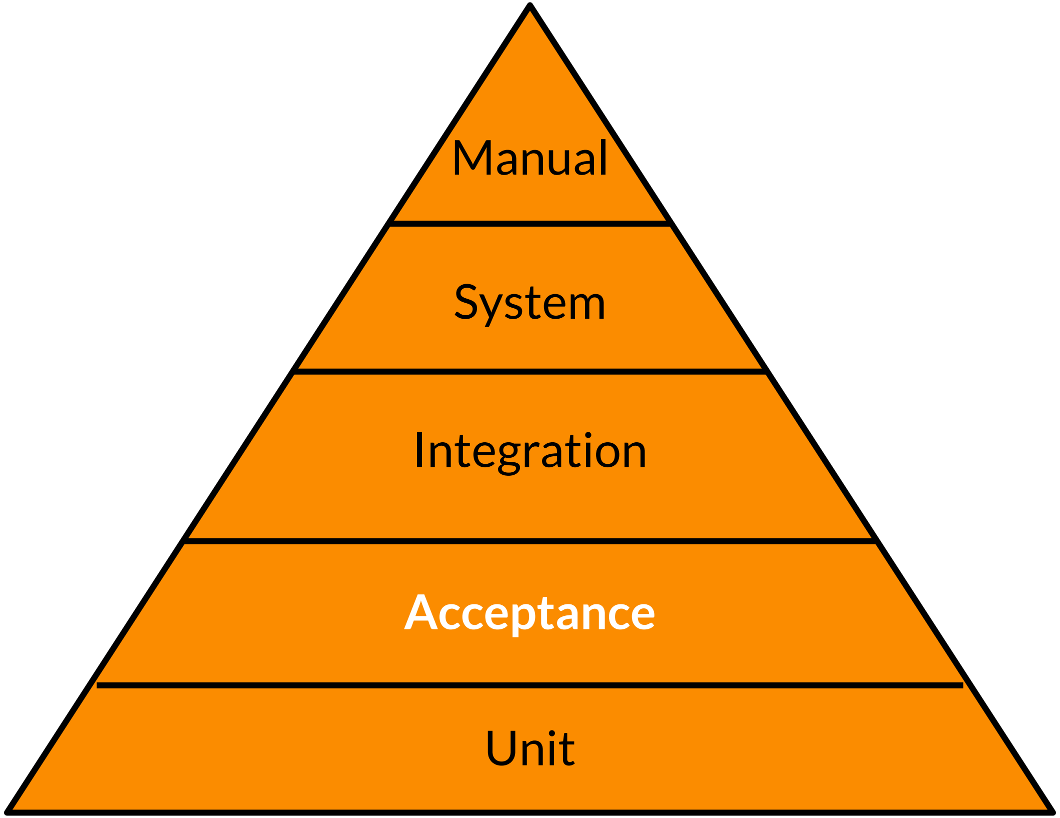
Isolated

Repeatable & predictable

Fast

100% Code Coverage

Acceptance Tests



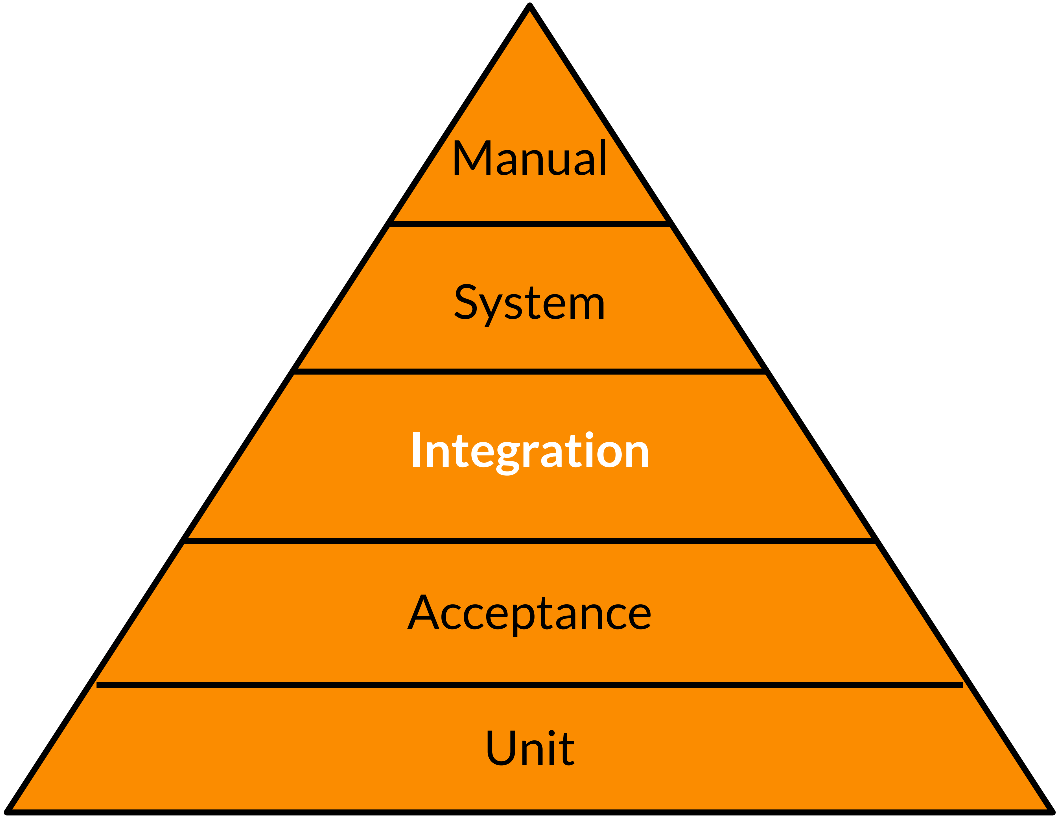
Acceptance Tests

Ensure Business requirement are met

Define by Product Owners

50% Code Coverage

Integration Tests



Integration Tests

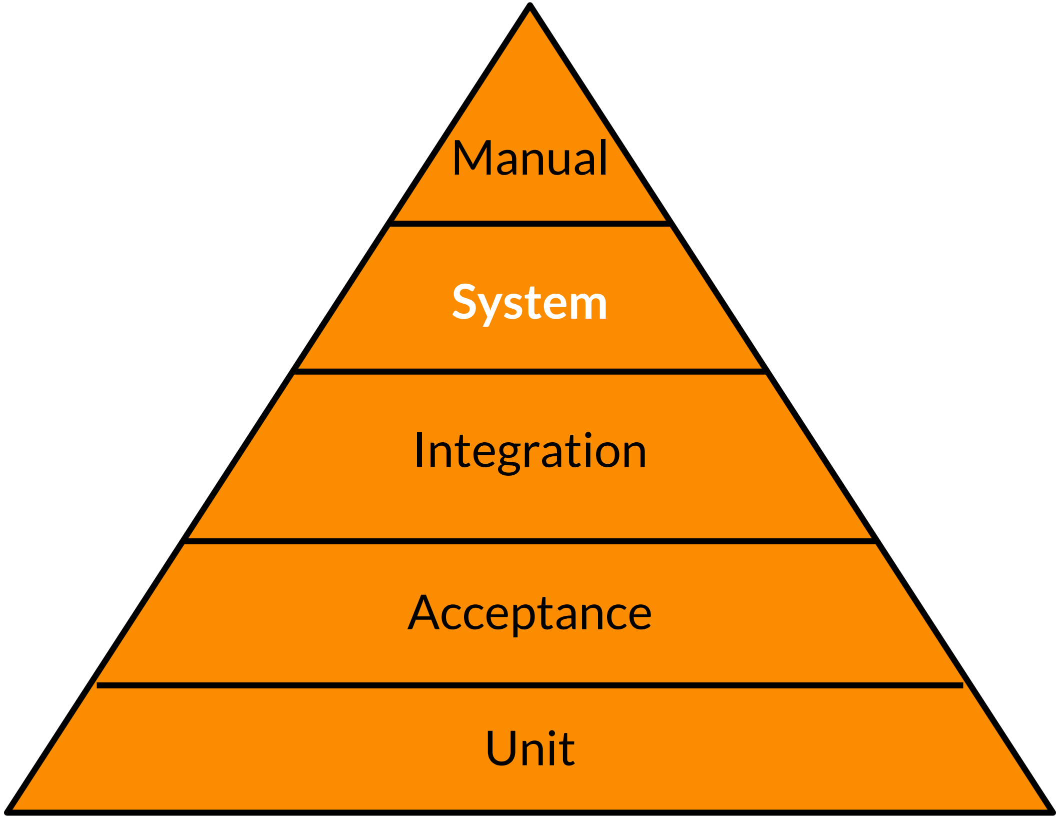
Tests a small number of units work together

Test the integration points of you application

10% Code Coverage

twitter.com/ThePracticalDev

System || End to End Tests



System (End to End) Tests

Flows through you application, usually a few core journeys

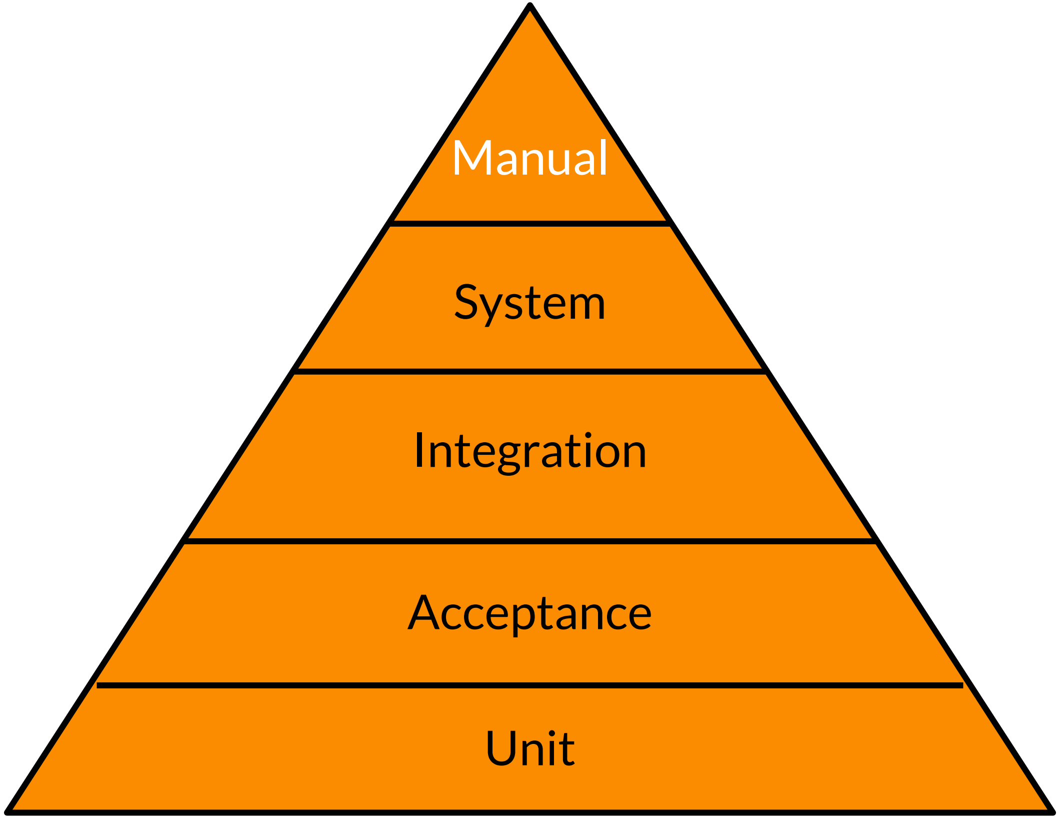
Uses all really services (Database, Email, …)

May interact with many different parts of you app in a single test

May require some seeding of external services

5% Code Coverage

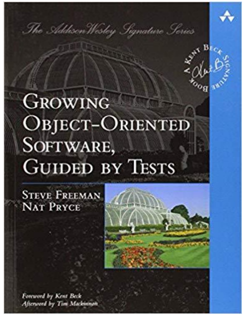
Manual Tests

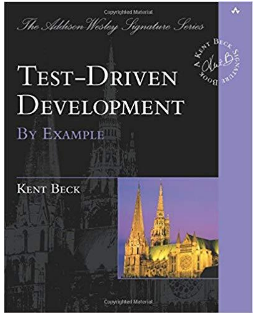


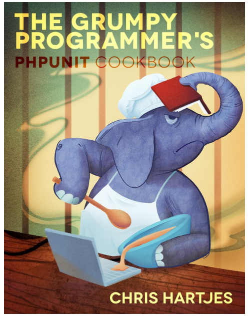
Lets Mob Program

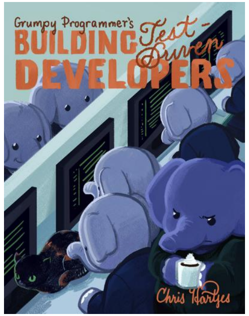
Practise Make Perfect

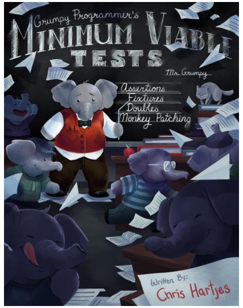
Resources


The Addison Wesley Signature Series
A Kent Beck Signature Book
Growing Object-Oriented Software, Guided by Tests
Steve Freeman
Nat Pryce
Foreword by Kent Beck
Afterword by Tim Mackinnon


The Addison Wesley Signature Series
A Kent Beck Signature Book
Test-Driven Development
By Example
Kent Beck


The Grumpy Programmer's
PHPUnit Cookbook
Chris Hartjes


Grumpy Programmer's
Building Test-Driven Developers
Chris Hartjes


Grumpy Programmer's
Minimum Viable Tests
Mr. Grumpy
Assertions
Fixtures
Doubles
Monkey Patching
Written By:
Chris Hartjes

Questions

Feedback

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Slide Deck: [Link]

Code: https://github.com/braddle/php-sussex-october-2019

Thank you