

---

---

# Test Driven Development

Dipping your toe into tests first

PHP London - Thursday 7th March 2019

Mark Bradley  
@braddle

---

---

# What?

---

---

# What is TDD?

Writing test before code

Using test to design the application

Not just unit tests

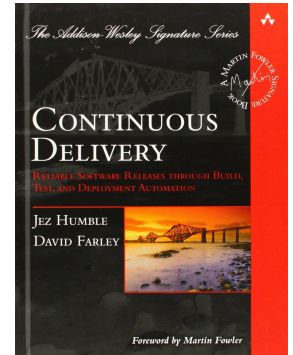
---

# Why?

---

---

# Why I do use TDD?



---

# Boring

---

# Tests are hard to write

# Easy to start skipping test





---

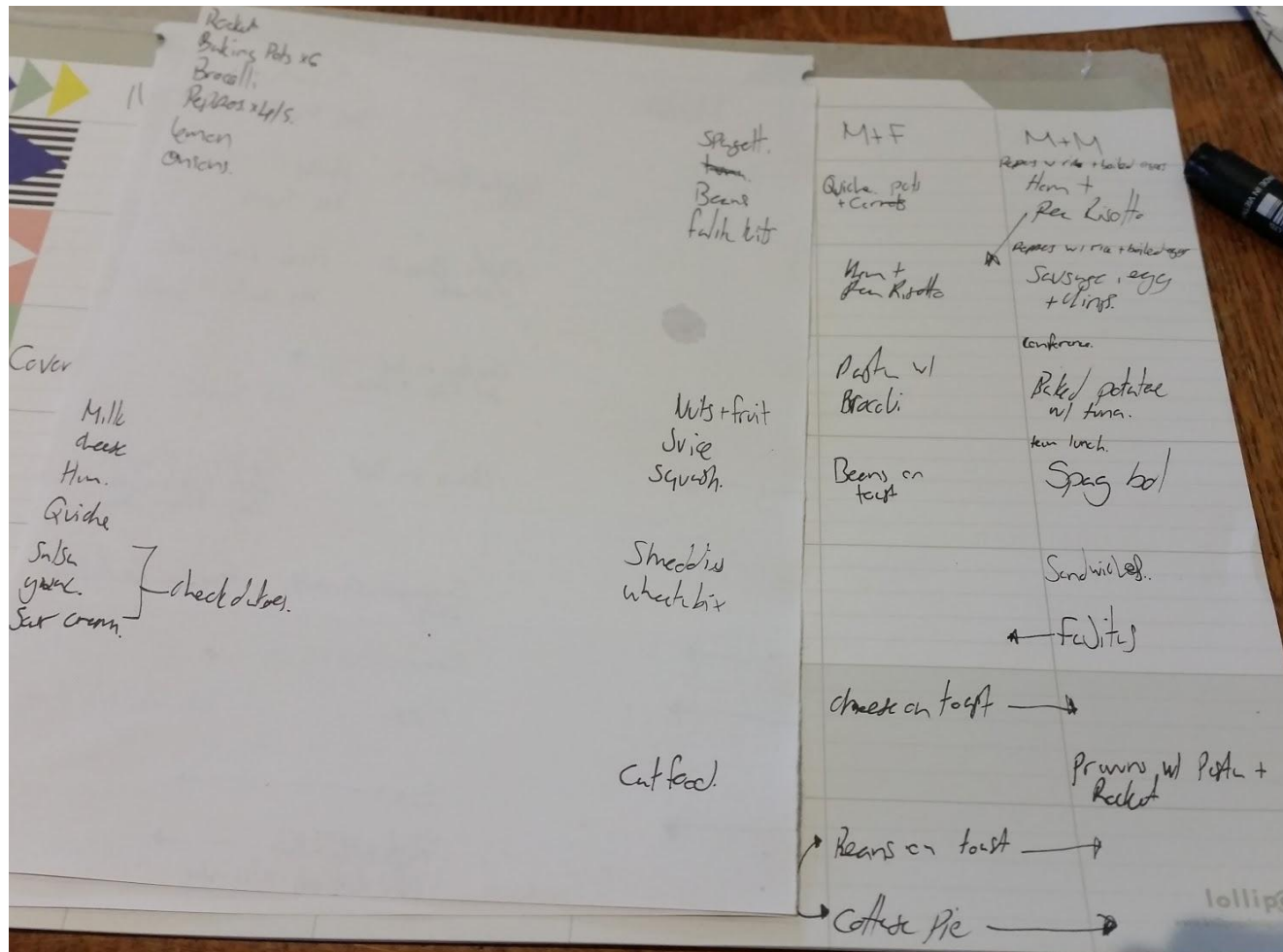
# Fun!

---

# Easy to write

—

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



---

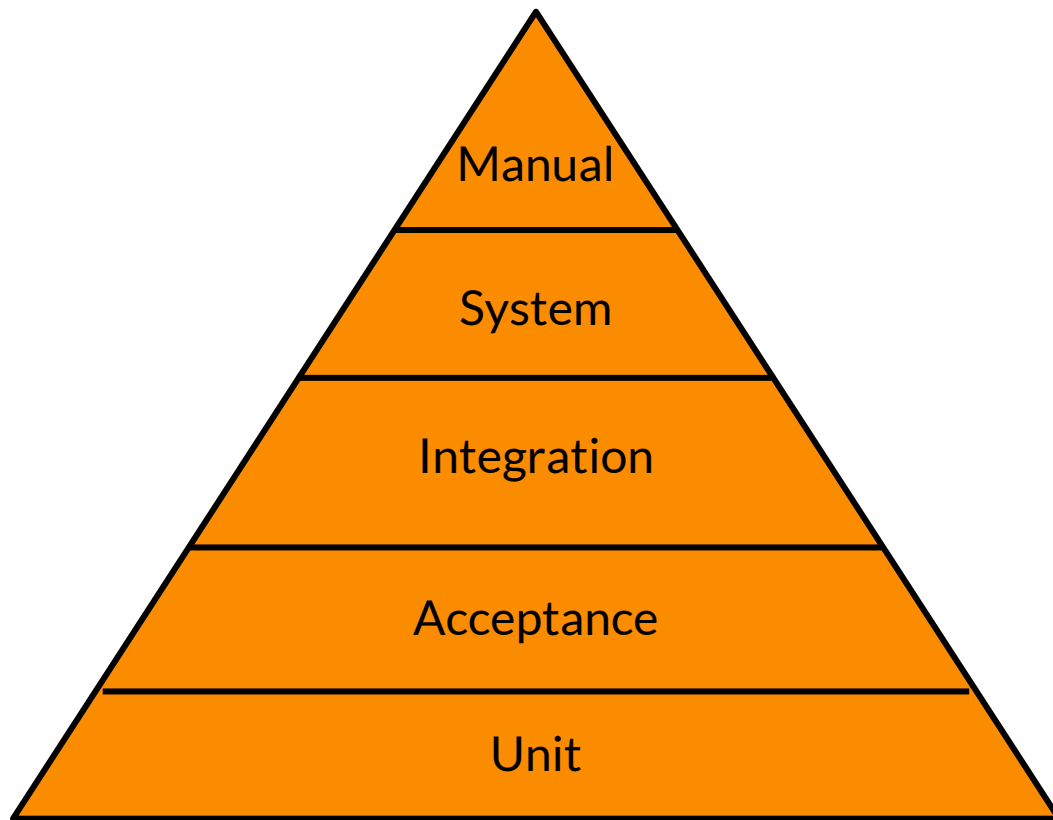
# Does it slow down development?

---

# How

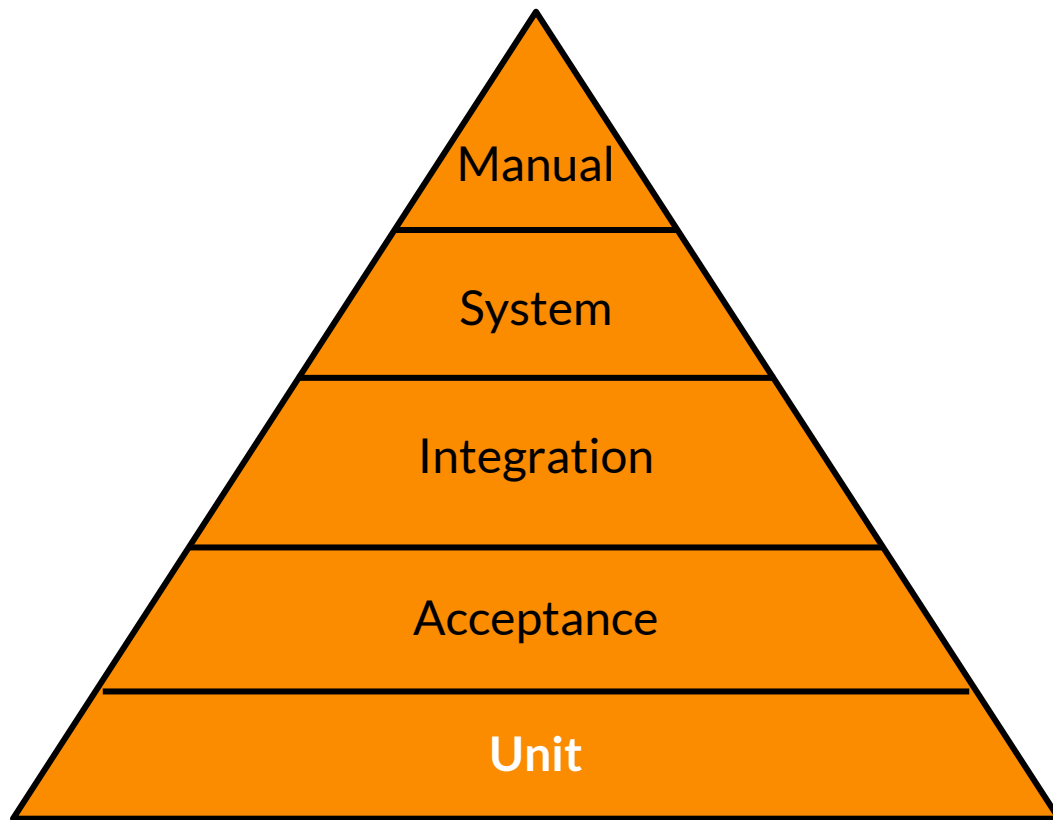
---

# Testing Pyramid





# Unit Tests



---

---

# Unit Tests

Targeted

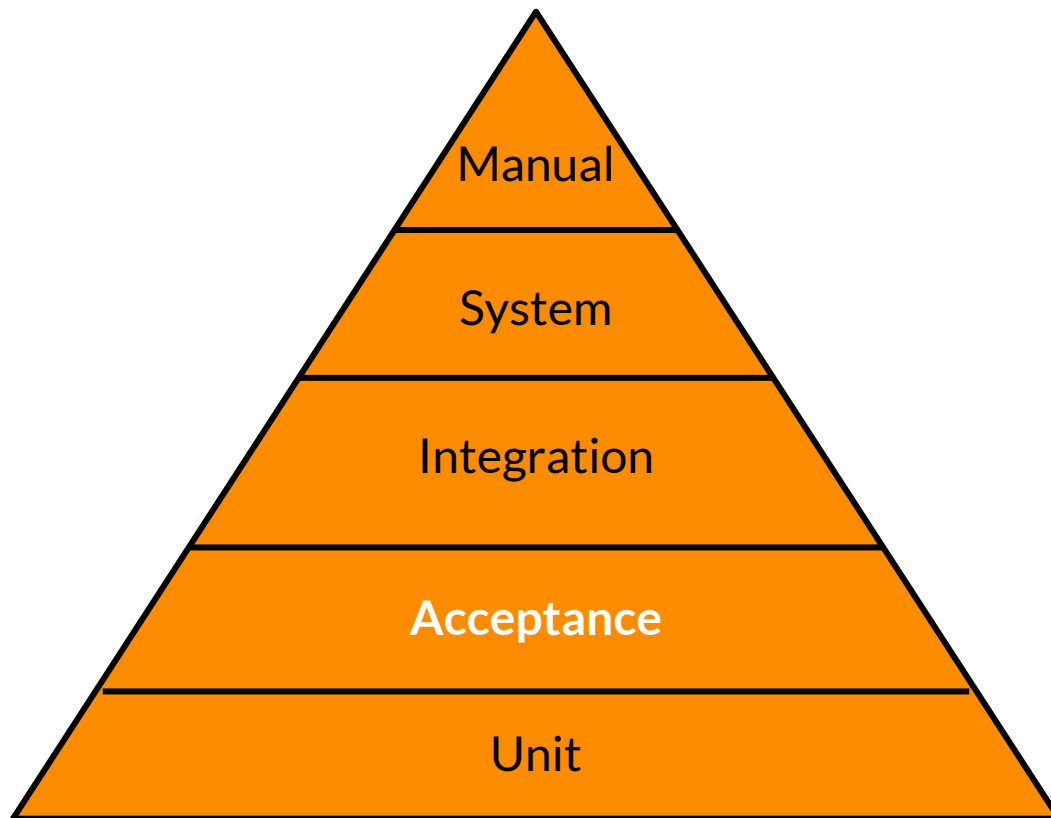
Isolated

Repeatable & predictable

Fast

100% Code Coverage

# Acceptance Tests



---

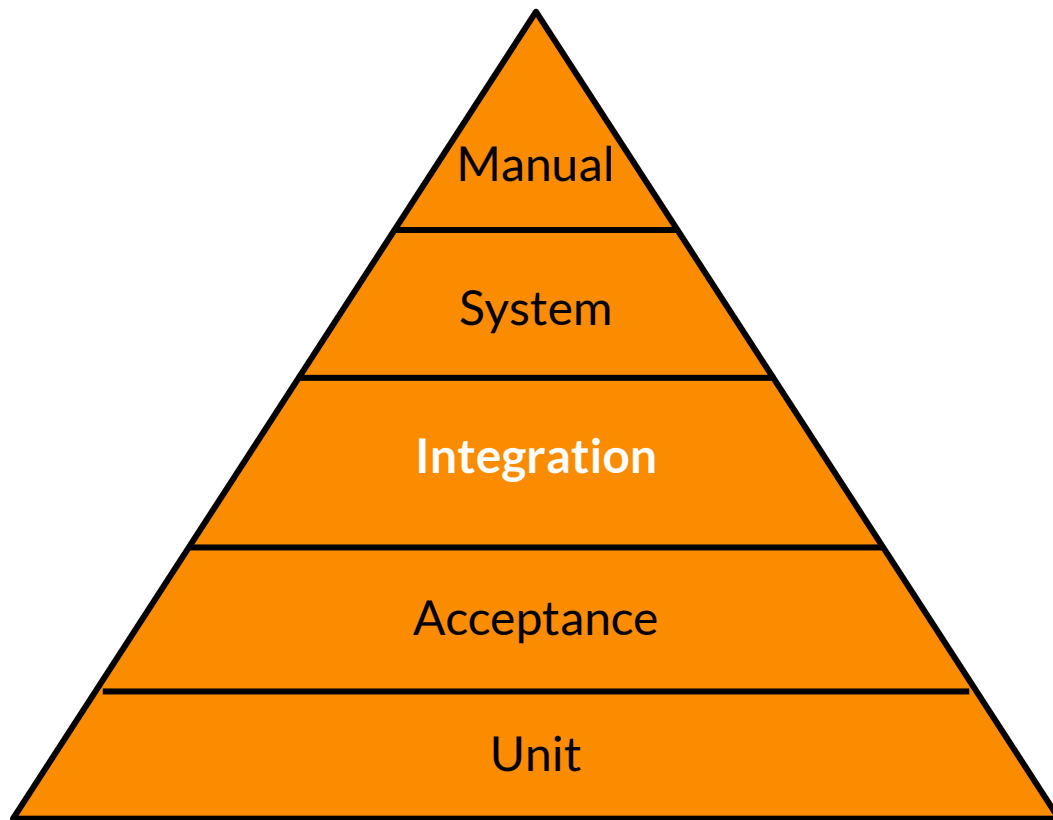
# Acceptance Tests

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

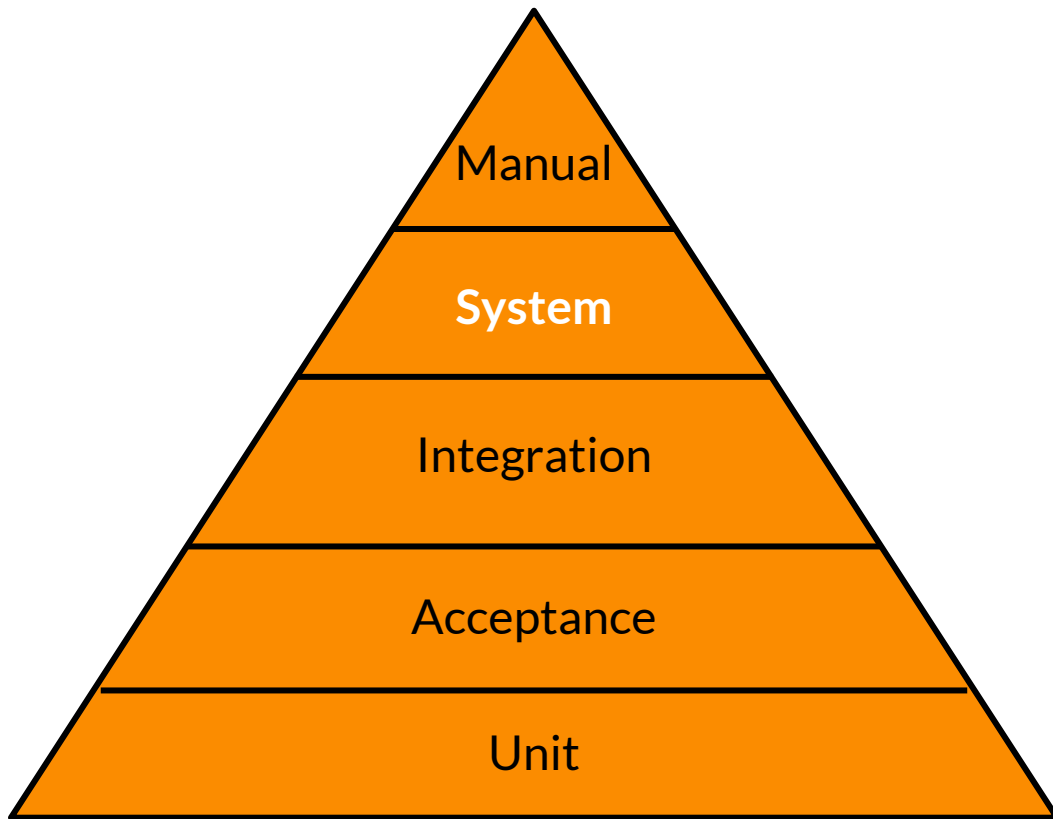
10% Code Coverage



[twitter.com/ThePracticalDev](https://twitter.com/ThePracticalDev)

@braddle

# System || End to End Tests





---

# System (End to End) Tests

Flows through you application, usually a few core journeys

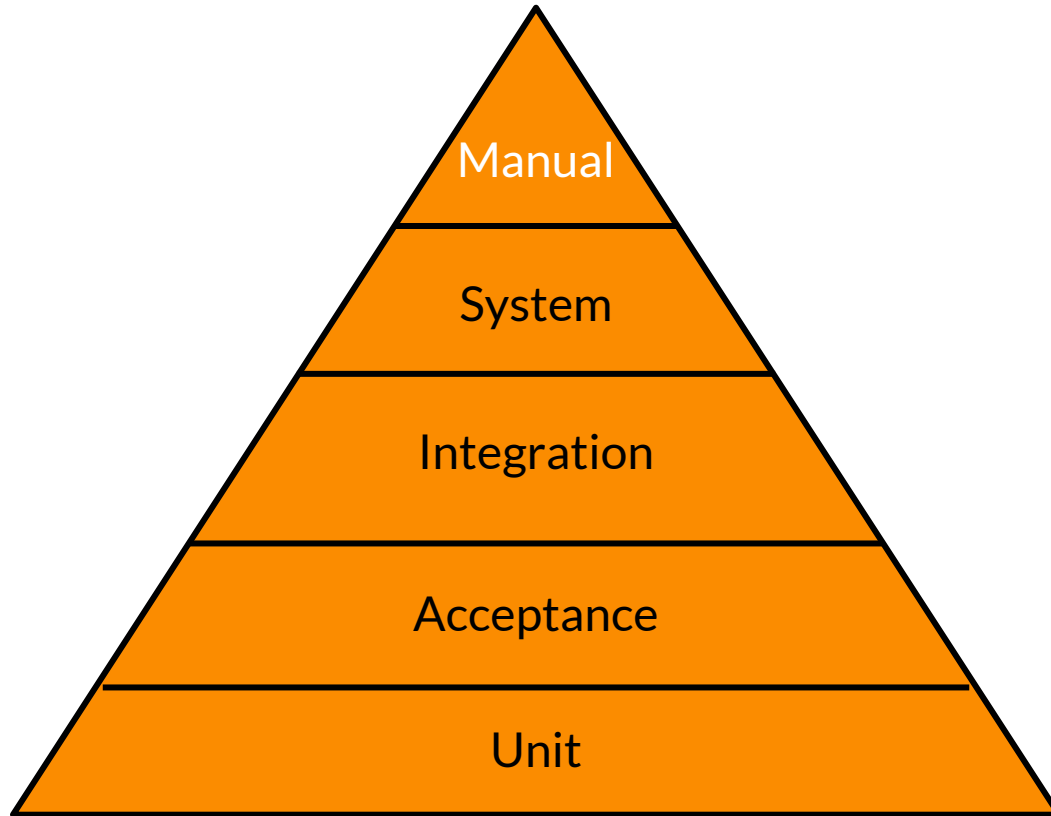
Uses all really services (Database, Email, ...)

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

May require some seeding of external services

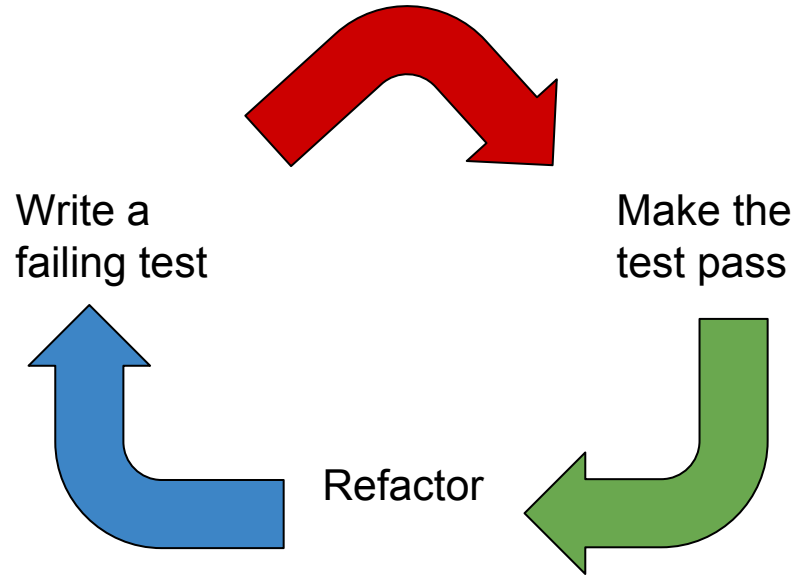
5% Code Coverage

# Manual Tests



---

# TDD Cycle



---

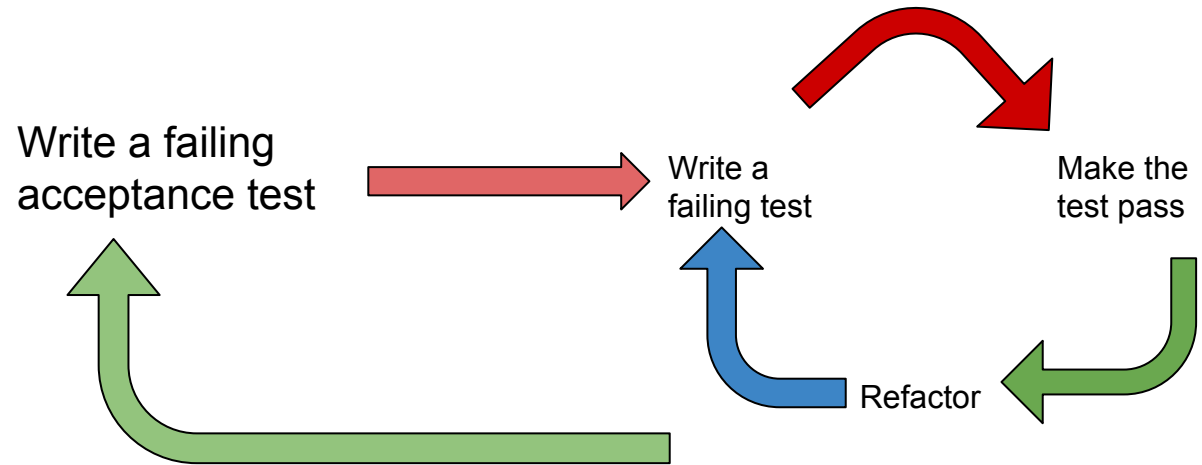
## 3 Rules of TDD

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

---

# TDD Cycle



# Arrange - Act - Assert

```
public function testIsGreaterThan()
{
    // Arrange
    $five = new Integer(5);
    $four = new Integer(4);

    // Act
    $isGreaterThan = $five->isGreaterThan($four);
    $notGreaterThan = $four->isGreaterThan($five);

    // Assert
    $this->assertTrue($isGreaterThan);
    $this->assertFalse($notGreaterThan);
}
```

---

# Lets Mob Program

---

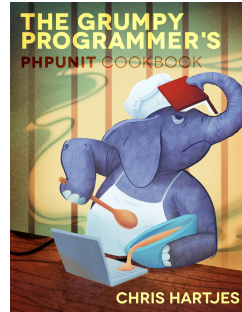
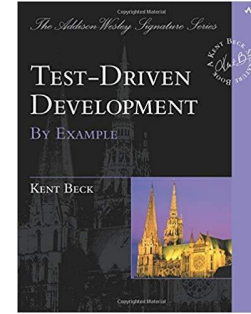
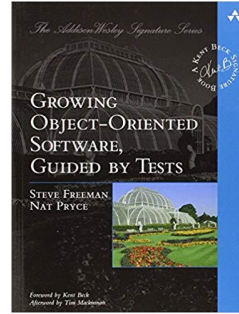


---

# Practise Make Perfect

---

# Resources



---

# Questions

---

---

# Feedback

Twitter: @braddle

Email: [braddle@gmail.com](mailto:braddle@gmail.com)

Slide Deck: [Link]

---

**Thank you**

---