Accelerated TDD
day 2

@phil_nash

Recap

Why Accelerated … and how?

What is a test, anyway?

You're not as smart as you think you are

The Cat-flap principle

The TDD cycle

snakes and ladders
markdown parser

Single Responsibility

Loose Coupling

Dependency Inversion

Identify our heroes

Michael Feathers

Kevlin Henney

Dan North

Steve Freeman

Nat Pryce

James Grenning

“Uncle” Bob Martin

A test is not a unit test if:

- It talks to the **database**
- It communicates across the **network**
- It touches the **file system**
- It can't run at the **same time as** any of your **other unit tests**
- You have to do special things to your **environment** (such as editing config files) to run it.

Tests that do these things aren't bad. Often they are worth writing, and they can be written in a unit test harness. However, it is important to be able to separate them from true unit tests so that we can keep a set of tests that we can run fast whenever we make our changes.

Michael Feathers - A Set of Unit Testing Rules

Deliberate
~~Practice~~
Learning

Beyond TDD

HI, THIS IS YOUR SON'S SCHOOL. WE'RE HAVING SOME COMPUTER TROUBLE.
OH, DEAR – DID HE BREAK SOMETHING?
IN A WAY–
DID YOU REALLY NAME YOUR SON Robert'); DROP TABLE Students;-- ?
OH. YES. LITTLE BOBBY TABLES, WE CALL HIM.
WELL, WE'VE LOST THIS YEAR'S STUDENT RECORDS. I HOPE YOU'RE HAPPY.
AND I HOPE YOU'VE LEARNED TO SANITIZE YOUR DATABASE INPUTS.

Fuzz Testing

Programming Wisdom @CodeWisdom

"There is no single development, in either technology or management technique, which by itself promises even one order-of-magnitude improvement within a decade in productivity, in reliability , in simplicity." - Frederick P. Brooks

1:58 PM - 8 Dec 2017

Programming Wisdom @CodeWisdom

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Chandler Carruth

@chandlerc1024

Following

I honestly think the sanitizers (ASan, TSan, MSan, UBSan), especially combined with coverage directed, continuous fuzz testing come really, really close. @kayseesee

Property-Based Testing

Mutation Testing

BDD

The deeper I got into TDD, the more I felt that my own journey had been less of a wax-on, wax-off process of gradual mastery than a series of blind alleys. I remember thinking “If only someone had told me that!” far more often than I thought “Wow, a door has opened.” I decided it must be possible to present TDD in a way that gets straight to the good stuff and avoids all the pitfalls.

My response is behaviour-driven development (BDD). It has evolved out of established agile practices and is designed to make them more accessible and effective for teams new to agile software delivery. Over time, BDD has grown to encompass the wider picture of agile analysis and automated acceptance testing

Dan North - Introducing BDD

Mocking

Test Doubles

Mocks

Fakes

Stubs

atdd.dev