

Testing Code



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Writing Test Code

With JUnit & Java

JUnit

A testing framework

Common solutions to common problems

There are other frameworks

We'll be focusing on the practices

Cafe



CoffeeType

Enum of different types of coffee

Coffee

A class for a single brewed cup

Cafe

Class for brewing coffee – including managing beans and milk

The Common Structure of Tests

The 3 things to get right

Given



The preconditions for the test

What should the world look like when the behaviour happens?

When



The Behavior

What is being tested?

Then



The post-condition

What are the changes that happened?

given

when

then

Exceptions, Failures and Errors

... because things eventually go wrong!

Sometimes an exception is the
correct result!

Checking for Exceptions

```
@Test(expected = IllegalArgumentException.class)
```

Failures vs. Errors

Failure

Tried to check a behavior

An assertion failed

Suggests the code is broken

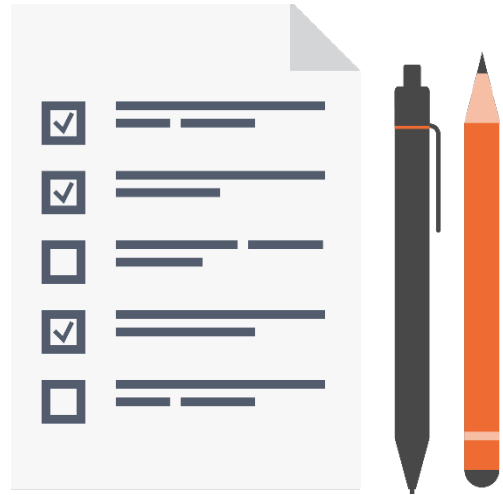
Error

At any point in the test

An exception was thrown

Suggests the test is broken

Summary



Coded some tests with JUnit

given/when/then

Failures vs. Errors

It was really simple!