

CONFESSIONS OF A RECOVERING MOCKIST

THIS WAS ME A FEW YEARS AGO



I WAS PRETTY HAPPY



BUT, AT WORK ...

I MOCKED EVERYTHING

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- DOMAIN CLASSES
- . OBJECTS I DIDN'T OWN
- ACROSS SERVICE BOUNDARIES
- UTILITY CLASSES

AND MY SOFTWARE DESIGN SUFFERED

MODERN TOOLING: MADE IT SO EASY TO MAKE MOCK OBJECTS I DIDN'T THINK ABOUT THE CONSEQUENCES

NOW, I STILL MOCK SOME SOCIABLE CLASSES

BUT I TRY TO THINK ABOUT IT DIFFERENTLY NOW.

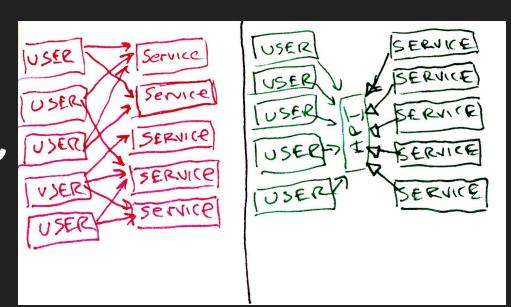
AND THESE ARE MY CONFESSIONS

CONFESSION 1:

I USED MOCKING TO AGGRESSIVELY
ISOLATED MY UNIT TESTS
FORCING COUPLING BETWEEN MY TESTS AND
PRODUCTION CODE.

ISOLATED UNIT TESTS CAN COUPLE THE TESTS WITH THE PRODUCTION CODE.

I LIKE TO EXPERIMENT
WITH
"SOCIABLE UNIT TESTS"



CONFESSION Z:

I MOCKED NOT WELL DEFINED INTERFACES.

MOCKING IS DEFINING AN EXPLICIT CONTRACT FOR A COLLABORATING OBJECT ROLE.

IF IT IS UNCLEAR WHAT AN OBJECT'S ROLE IS IT IS PROBABLY TOO EARLY TO DEFINE A CONTRACT (MOCK) FOR IT.

- PARAPHRASED

AGAIN. WHAT DOES THAT MEAN?

IF IT IS NOT ABUNDANTLY CLEAR WHAT ROLE THE MOCK IS REPRESENTING YOU MAY BE:

COUPLING TO A SPECIFIC IMPLEMENTATION OVER-SPECIFYING IMPLEMENTATION DETAILS.

I have Seen myself do this, by Mocking: Utility Classes, Domain Classes, Translators, Factories, Helpers

OFTEN, I HAVE FOUND THAT THIS IS COUPLING MY CODE TO A SPECIFIC IMPLEMENTATION MAKING IT HARDER TO REFACTOR CONCERNS

CONFESSION EXAMPLE

I LIKE TO THINK ABOUT STUBBING AND MOCKING A COLLABORATING OBJECT AS SOMETHING "SACRED"

YOU ARE DEFINING A DERIVING AN

CONTRACT/INTERFACE - (ALMOST IMPLEMENTATION)

AND THE ACCEPTANCE CRITERIA

IN THE TEST IS THAT THE MOCK IS USED CORRECTLY

I LIKE TO THINK ABOUT STUBBING AND MOCKING A COLLABORATING OBJECT AS SOMETHING "SACRED"

THIS IS EXPENSIVE AND DANGEROUS BECAUSE MOCKS ARE A HARD TO CHANGE AND A REGRESSION DANGER I LIKE TO THINK ABOUT STUBBING AND MOCKING A COLLABORATING OBJECT AS SOMETHING "SACRED"

BE CAREFUL

THIS IS WHY I NOW ADVOCATE:

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CONTRACT FOR AN ABSTRACTION.
(WHICH IN ITSELF IS AN ARCHITECTURAL BOUNDARY)
(YOU COULD ARGUE)

IT FORCES YOU TO THINK THROUGH WHAT YOUR SIGNIFICANT ARCHITECTURAL BOUNDARIES ARE; AND ENFORCE THEM WITH POLYMORPHIC INTERFACES."

"Another big benefit of this approach is that

THIS IS WHY I ADVOCATE ONLY MOCKING EXPLICIT INTERFACES.

CONFESSION Z:

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- DAVID JULIA WHO I AM PRETTY SURE TOOK THAT FROM KENT BECK

SOMETIMES, IT IS TEMPTING TO TRY AND "PROVE" THAT CLASSES ARE IMPLEMENTED CORRECTLY BY TESTING THAT THEY ARE COLLABORATING WITH OTHER OBJECTS CORRECTLY.

UNFORTUNATELY, THIS COMMONLY LEADS TO LAYERS OF DUPLICATED CODE WHERE:

THE IMPLEMENTATION IS WRITTEN:
ONCE IN THE TEST
AND ONCE IN THE PRODUCTION CODE ITSELF

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* IF YOU HAVE ONE TAKE AWAY: TAKE THIS

THE TEST CANNOT BE USED TO DRIVE DESIGN OF THE OBJECT. (THE API BELONGS TO SOMEONE ELSE)

THESE MOCKS ARE EXPLICITLY OVER SPECIFYING (COUPLING) YOU TO THE ONE IMPLEMENTATION OF INTERACTION

THERE IS NO GUARANTEE THAT YOU ARE USING THE LIBRARY CORRECTLY

IT IS PROBABLY A SMELL THAT YOUR CODE IS NOT DECOUPLED FROM A THIRD PARTY LIBRARY

CONFESSION EXAMPLES

CONFESSION 5:

I WOULD REIMPLEMENT COMPLEX BEHAVIOR IN MOCKS.

IF YOU FIND YOURSELF CREATING A COMPLICATED SETUP FOR A COLLABORATING OBJECT PERHAPS

THERE IS NOT A CLEAR BOUNDARY?

THIS MAY BE A GOOD CANDIDATE FOR:

ANOTHER KIND OF TESTING OBJECT
LIKE A
FAKE
OR A "DUMMY"

IF IT SEEMS THAT THE ONLY WAY TO TEST THINGS IS BY MOCKING COLLABORATING OBJECTS, I TAKE A BREAK AND PONDER.

I TRY TO MAKE SURE BOTH MY PAIR AND I AGREE ON THE VALUE OF A MOCK OBJECT.

I CONSIDER AVOIDING PULLING IN MOCKING LIBRARIES AND ATTEMPT TO CREATE CUSTOM "FAKES" TO TO BETTER UNDERSTAND MY ABSTRACTIONS

I EDUCATED MYSELF ON THE DIFFERENT TYPES OF TESTING DOUBLES AND THE DIFFERENT PHILOSOPHIES IN THE TDD COMMUNITY

I ATTEND "MOCKISTS ANONYMOUS" ON TUESDAYS.

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* THIS IS A JOKE

I ATTEND "MOCKISTS ANONYMOUS" ON TUESDAYS.

- * THIS IS A JOKE
 - * UNLESS YOU WANT TO START IT WITH ME.

https://8thlight.com/blog/uncle-bob/2014/05/10/WhenToMock.html

https://martinfowler.com/articles/mocksArentStubs.html

https://martinfowler.com/bliki/RoleInterface.html

https://github.com/mockito/mockito/wiki/How-to-write-good-tests

https://8thlight.com/blog/eric-smith/2011/10/27/thats-not-yours.html

https://davesquared.net/2011/04/dont-mock-types-you-dont-own.html

http://www.jmock.org/oopsla2004.pdf

https://content.pivotal.io/blog/tdd-midlife-crisis-white-box-testing-refactoring-tests