

WHERE HAVE ALL THE CUKES GONE?

An Introduction to
ATDD





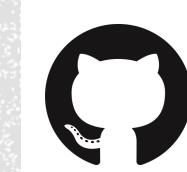
WHO AM I?

Doug Morgan

Engineering / Agile Coach
Alpenglow Software, LLC



dougmorganCLE



dmorgan3405

SHOUT OUT

Dave Speck
@davespeck



Jeff “Cheezy” Morgan
@chzy



01

Help each other out.

- You aren't done until the pair next to you is done.

02

Ask questions.

- Speak up if you don't understand something.

03

Time boxed breaks.

WORKING AGREEMENTS



Who are you?

What is role?

What are you looking to get out of this workshop?

ICE BREAKER

PAIR UP



**WHY DO THE
WORDS MATTER?**



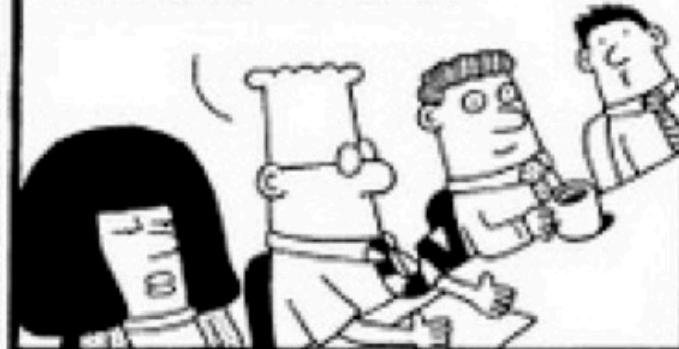
TODAY IS THE THREE-YEAR ANNIVERSARY OF OUR FIRST MEETING TO DISCUSS PROJECT REQUIREMENTS.



scottadams@soe.com

www.dilbert.com

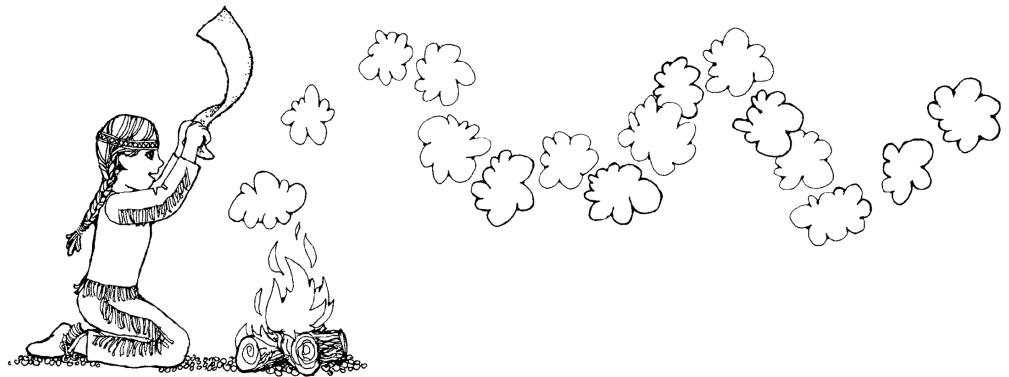
AND WE'RE STILL DISCUSSING REQUIREMENTS. DOES ANYONE ELSE SEE A PROBLEM HERE?



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WHEN YOU'RE DONE, CAN WE TALK ABOUT REQUIREMENTS?



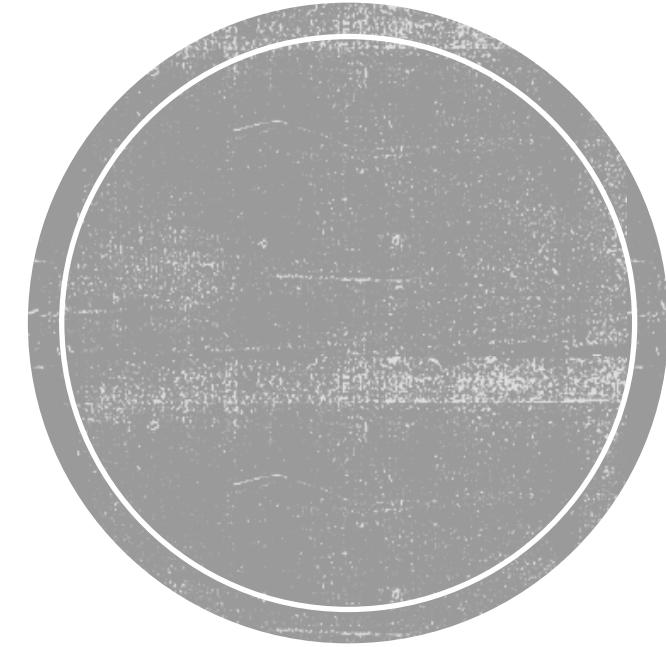


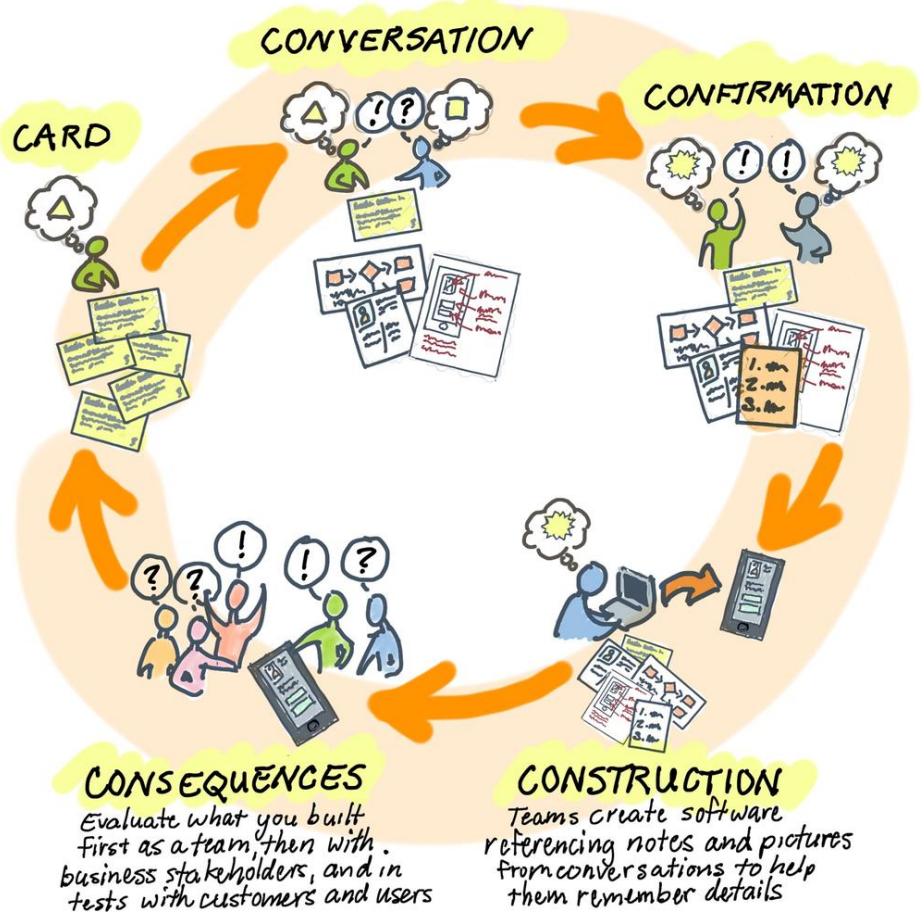
**“SHARED DOCUMENTS
AREN’T SHARED
UNDERSTANDING”**

***--JEFF PATTON--
USER STORY MAPPING***



**AS A [ROLE]
I WANT [NEED]
SO THAT [BENEFIT]**





STORIES ARE A PLACEHOLDER FOR A CONVERSATION.



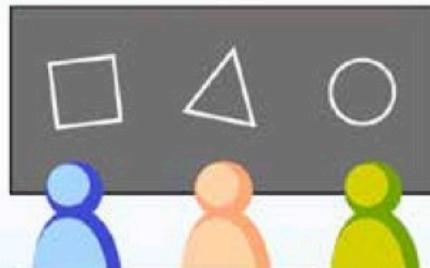
1.

Clear communication is the foundation



2.

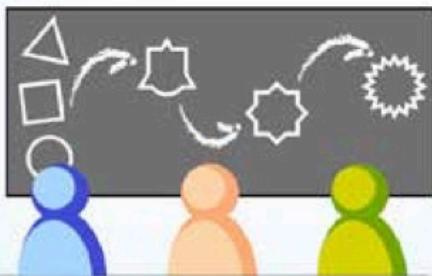
Get those mental models out on the table



"Ah!"

3.

An explicit model allows convergence through iteration



"Ah!"

4.

A genuinely shared understanding



"I'm glad we're all agreed then"

UBIQUITOUS LANGUAGE

By using the model-based language pervasively and not being satisfied until it flows, we approach a model that is complete and comprehensible, made up of simple elements that combine to express complex ideas.

...

Domain experts should object to terms or structures that are awkward or inadequate to convey domain understanding; developers should watch for ambiguity or inconsistency that will trip up design.

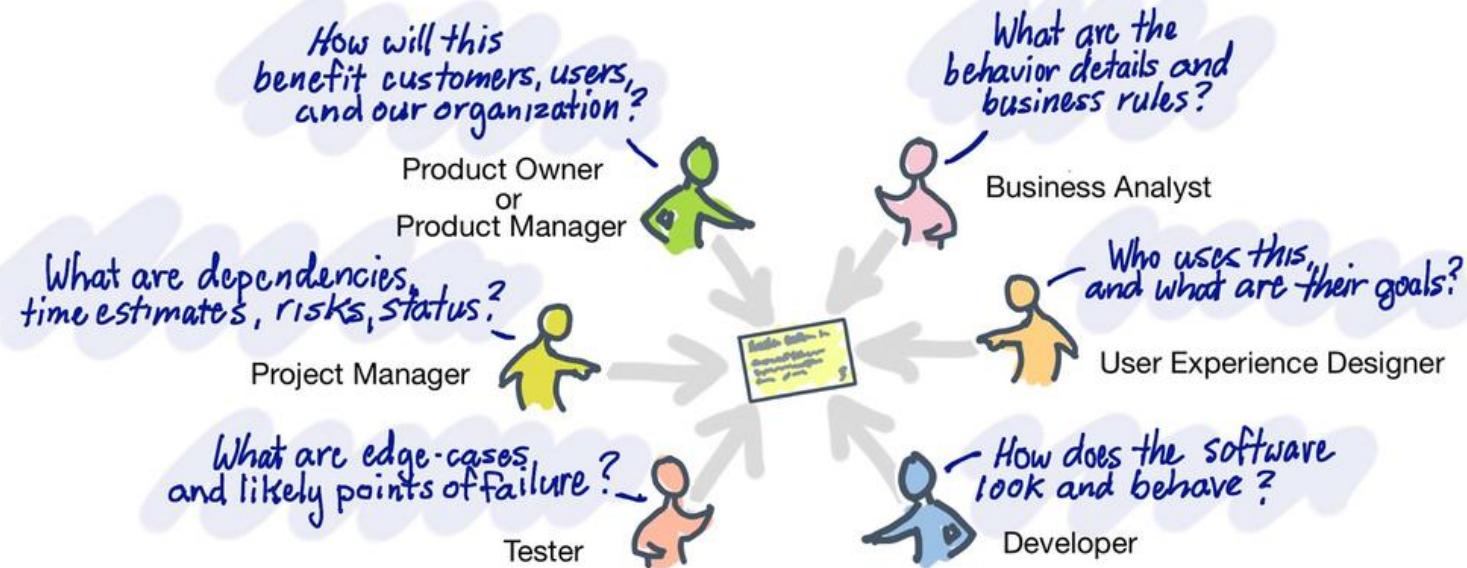
-- Eric Evans

Domain Driven Design

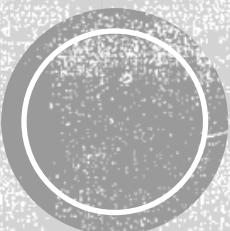


brush
tooth
paste
bristles
water

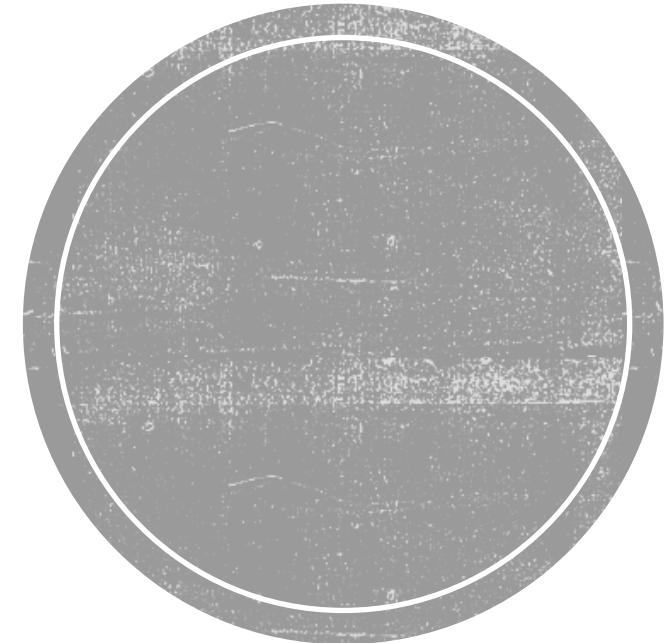




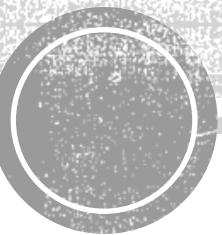
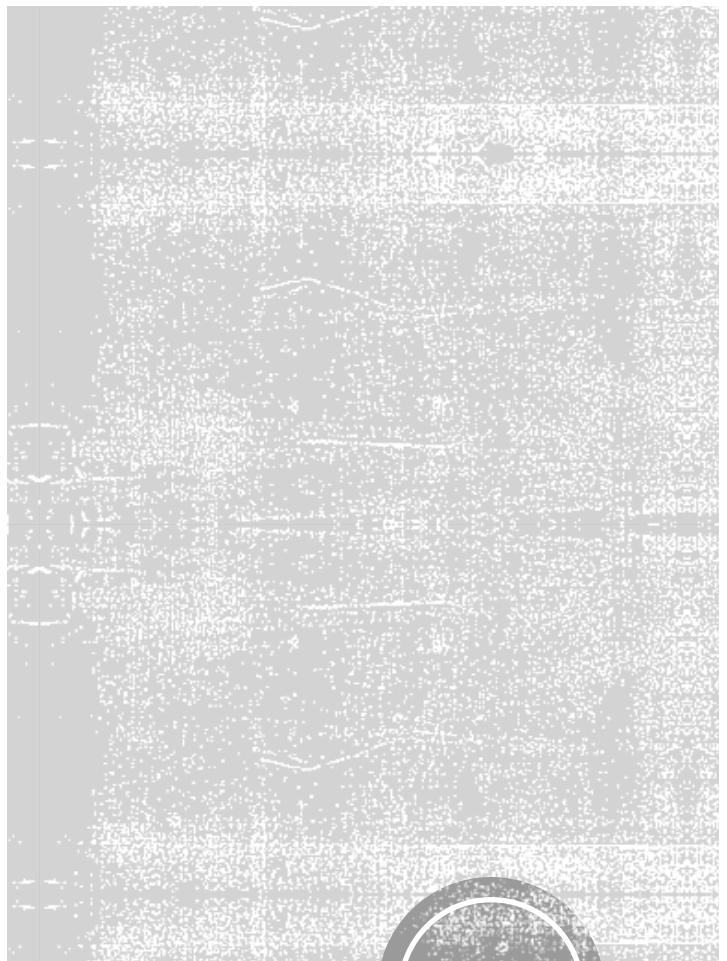
DIFFERENT PEOPLE, DIFFERENT CONVERSATIONS



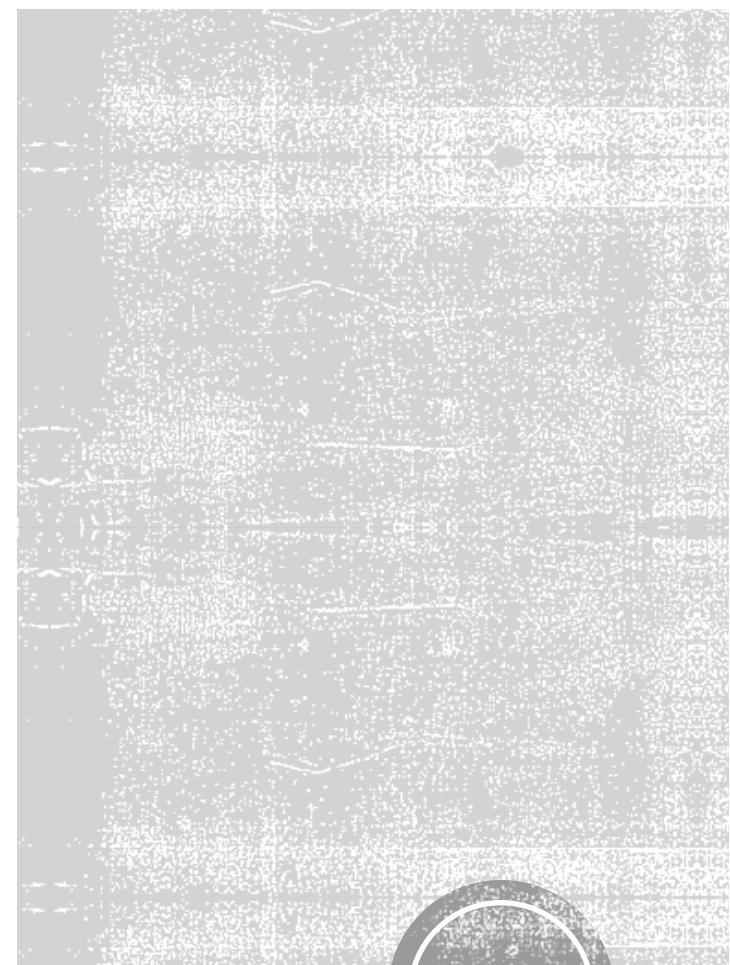
WHAT IS A SCENARIO?



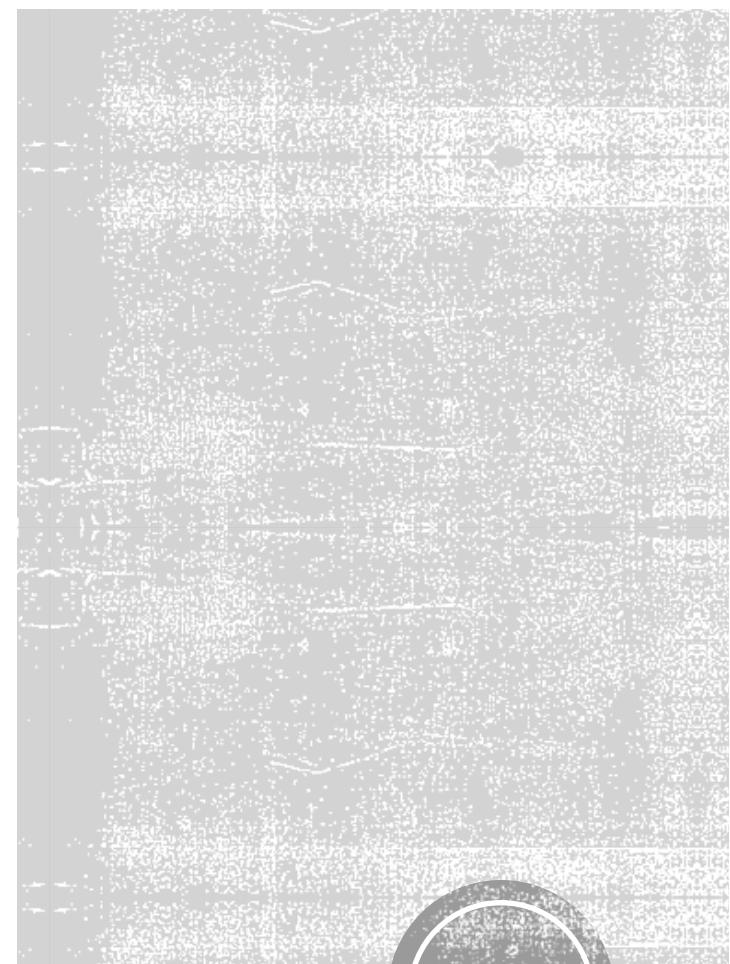
**ONE EXAMPLE OF
HOW YOUR SYSTEM
WILL BE USED TO
SATISFY A NEED**



**WRITTEN IN THE
LANGUAGE
OF THE
BUSINESS**



**CONCRETE.
REAL,
SOLID**



Scenario
Scenario
Scenario
Scenario
Scenario
Scenario
Scenario
Scenario
Scenario

'Good Enough'
representation of
a feature's behavior



FEATURE FILE



Feature

Scenario

Given

When

Then

KEY WORDS



Feature: *feature title*

narrative

Scenario: *scenario title*

Given *this state*

When *I change state*

Then *I expect this outcome*

Scenario:

STRUCTURE



Account Management

ATM Withdrawals

Account Holder Withdrawals Cash

WHICH ONE?



01

Gives a sense of
what is being
accomplished

02

Includes who's
behavior it is

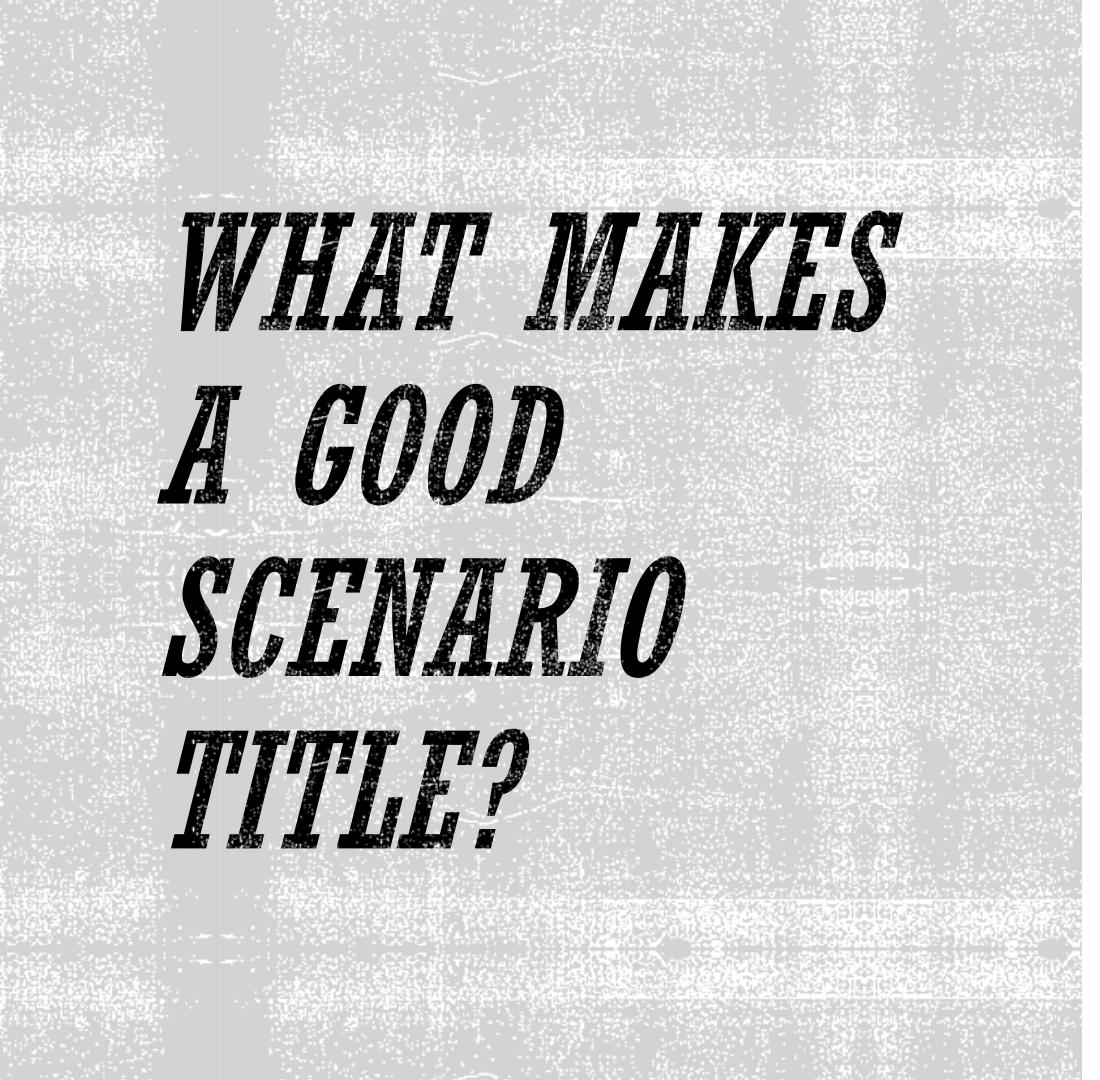
03

Crisp,
but not overly
generalized and
vague

WHAT MAKES A GOOD FEATURE TITLE?



- Short and descriptive
- Is in support of the feature
- Seek consistency but a difference with the other scenario titles
- Cohesive. They fit together.

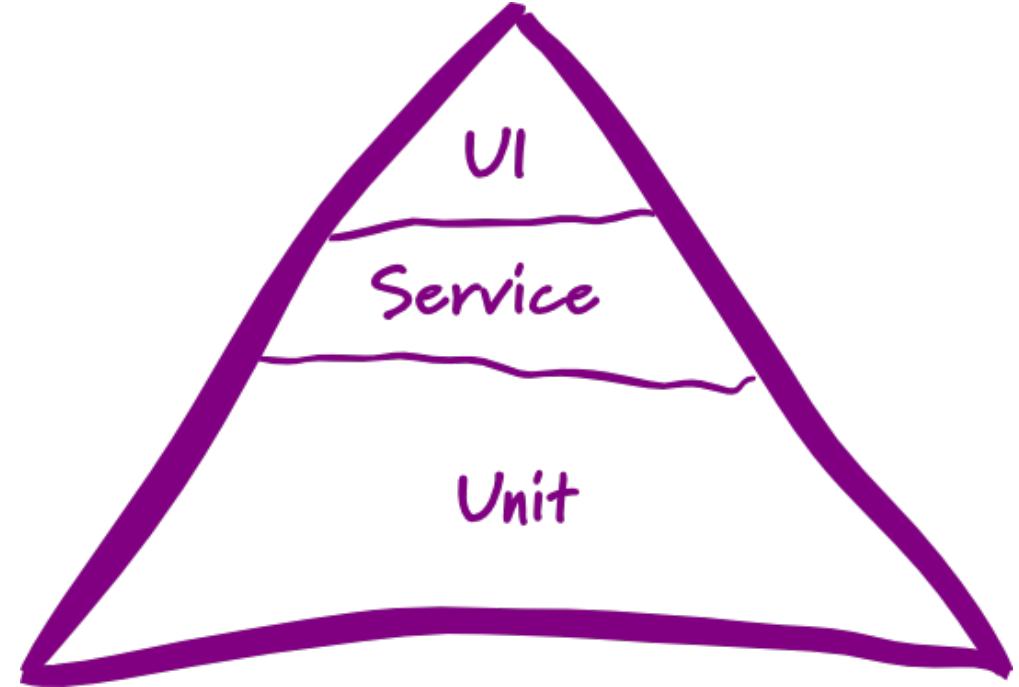
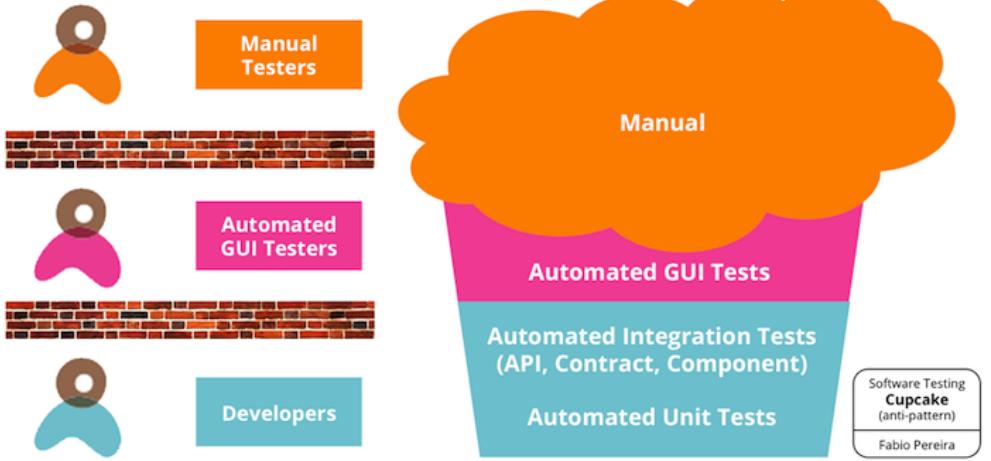


***WHAT MAKES
A GOOD
SCENARIO
TITLE?***

	Happy Path
	Happy Path
	Edge Case
	Edge Case
	Edge Case
	Rule's Outcome
	Rule's Other Outcome
	That One Strange Case

Full representation
of the feature's behavior

**HOW MANY
SCENARIOS
SHOULD I
HAVE?**



CUPCAKE VS PYRAMID

1

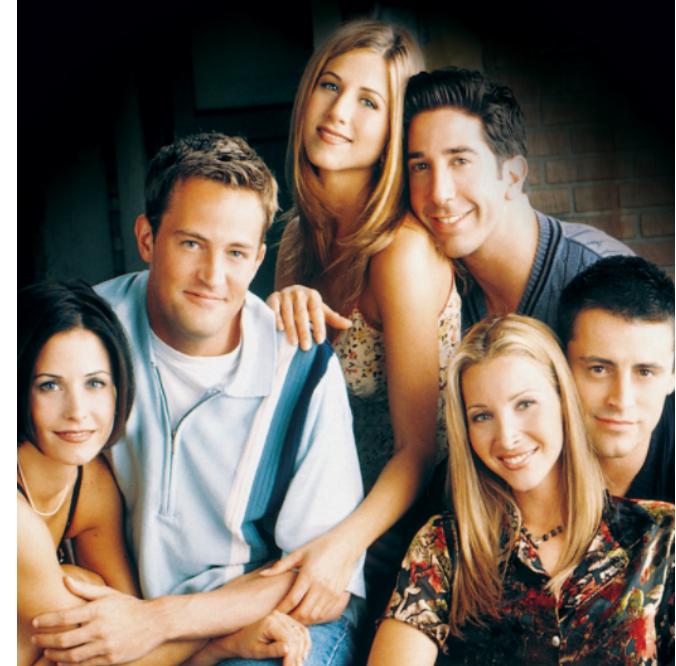
Identify the things in the scenarios

2

Discover rules related to the things

3

Brain Storm



F•R•I•E•N•D•S

GENERATING SCENARIO TITLES



1

Identify the things in the scenarios

2

Discover rules related to the things

3

Brain Storm

EXERCISE

Feature: Account Holder withdraws cash

As an Account Holder

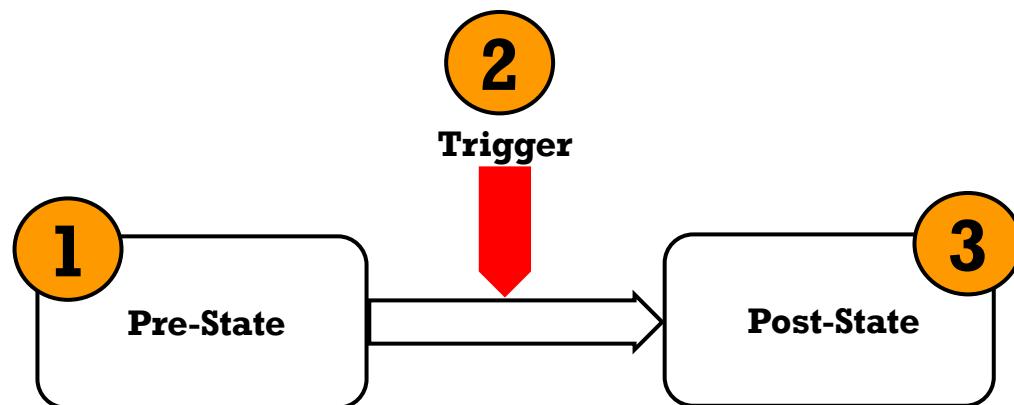
I want to withdraw cash from an ATM

So that I can get money when it is convenient for me

EXERCISE REVIEW



Given this state
When I change the state
Then examine the new state





**Extra Givens
are
distractions.**

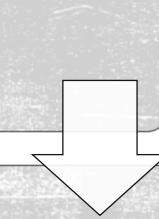


**Missing
Givens are
assumptions.**

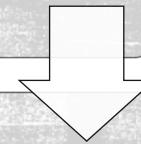
THE 'GIVEN' SHOULD DEFINE ALL OF, AND NO MORE THAN, THE NECESSARY CONTEXT



Describes the overall feature



Cohesive



Single Action

KEEP THE 'WHEN' SIMPLE



NOT EVERY USER ACTION IS PART OF THE TRIGGER

Scenario: Account has sufficient funds

Given my account balance is \$500

And my card is valid

And my machine contains enough money

When I enter my PIN

And I select ‘withdrawal’

And I request \$50

...

NOT EVERY USER ACTION IS PART OF THE TRIGGER

Scenario: Account has sufficient funds

Given my account balance is \$500

And my card is valid

And my PIN is valid

And my machine contains enough money

When I request \$50

...

The outcomes examined must be ones **observable by the user**, not something buried inside the system.

Should be related to the business value found in the feature narrative.

Relative to the **Given** and the **When**.

THE ‘THEN’ IS THE USER’S ‘THEN’

THEN

Scenario: Account has sufficient funds

Given my account balance is \$500

And my card is valid

And my PIN is valid

And my ATM contains enough money

When I request \$150

Then the ATM should dispense \$150

And my account balance should be \$350

And my card should be returned

**You and Your
Partner**

**Write the scenarios
(Given-When-
Then) for the
scenario titles you
identified**

EXERCISE

Shitty First Drafts

Now, practically even better news than that of short assignments is the idea of shitty first drafts. All good writers write them. This is how they end up with good second drafts and terrific third drafts. People tend to look at successful writers, writers who are getting their books published and maybe even doing well financially, and think that they sit down at their desks every morning feeling like a million dollars, feeling great about who they are and how much talent they have and what a great story they have to tell; that they take in a few deep breaths, push back their sleeves, roll their necks a few times to get all the cricks out, and dive in.

typing fully formed passages as fast as a court reporter. But this is just the fantasy of the uninitiated. I know some very great writers, writers you love who write beautifully and have made a great deal of money, and not one of them sits down routinely feeling wildly enthusiastic and confident. Not one of them writes elegant first drafts. All right, one of them does, but we do not like her very much. We do not think that she has a rich inner life or that God likes her or can even stand her. (Although when I mentioned this to my priest friend Tom, he said you can safely assume you've created God in your own image when it turns out that God hates all the same people you do.)

Very few writers really know what they are doing until they've done it. Nor do they go about their business feeling dewy and thrilled. They do

For me, and most of the other writers I know, writing is not rapturous. In fact, the only way I can get anything written at all is to write **really**, really shitty first drafts.

The first draft is the child's draft, where you let it all pour out and then let it romp all over the place, knowing that no one is going to see it and that you can shape it later. You just let this childlike part of you channel whatever voices and visions come through and onto the page. If one of the characters wants to say, "Well so what, Mr. Foopy Pants!" you let her. No one is going to see it. If the kid wants to get into really sentimental, weepy, emotional territory you let him. Just get it all down on paper, because there may be something great in those six crazy pages that you would never have gotten to by more rational, grown-up means. There may be something in the very last line of the very last paragraph on page six that you just love that is so beautiful or wild that you now know what you're supposed to be writing about, more or less, or in what direction you might go—but there was no way to get to this without first getting through the first five and a half pages.

"Shitty First Drafts," *Bird by Bird: Some Instructions on Writing and Life*, by Anne Lamott.
Copyright © 1994 by Anne Lamott. Used by permission of Pantheon Books, a division of Random House, Inc.

The SFD



IMPROVING THE SFD

1. Cohesive Scenario Titles

- Do they all support the feature?
- Does the feature title include the actor?
- Are the words consistent?

2. Narrative

- Can you find all of these?
 - the user
 - the need
 - the benefit

3. Remove the noise

- Remove unnecessary data and details.

4. Focus on the behavior

- Remove implementation details and scriptiness.
- Imperative Versus Declarative:
 - Instructing how to do it.
 - Describing what the goal is.

Tips:

- Ask, "How would a non-technical user describe this step?"
- Try and remove any details of the underlying technology
- Look for steps that can be combined into a single domain action

5. The Pre-Condition / Context - Given

- Are all really necessary?
- Anything missing?
- Are there common pre-conditions that could be part of a background?
- Look for steps that can be combined into a single domain pre-condition.

6. The Action - When

- Isolate the trigger
- Are my whens cohesive?
- Are there given's hiding in your action?
- Is the when focused on only changing the state of the given pre-conditions?
- ***Look for steps that can be combined into a single domain action.***

7. The Outcome - Then

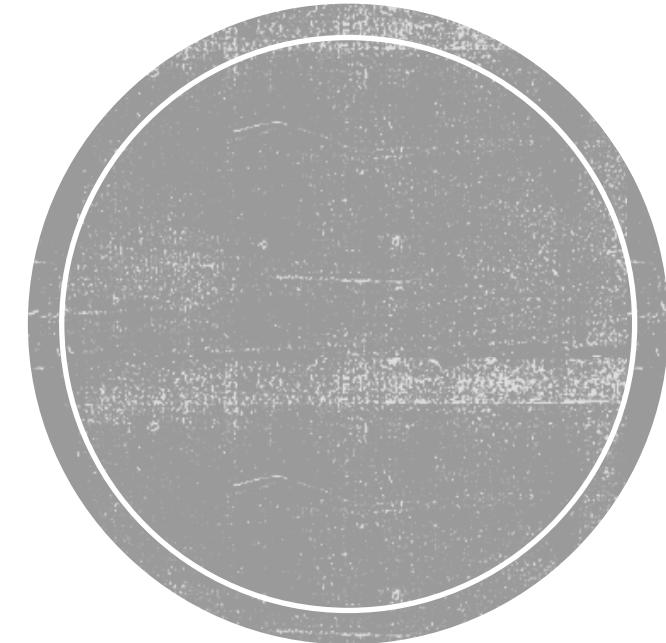
- Should focus on the outcome of the action
- The outcomes examined must be ones observable by the user, not something buried inside the system

Additional notes

- Create a vocabulary shared by everyone.
- Use the language of the business.
- Be consistent.
- Be disciplined.
- The words will end up in your codebase. (Domain-Driven Design)



**WHERE'S THE
SWEET SPOT?**



TAUTOLOGICAL

Scenario: Search for a Book

When I search for a book

Then I should see the correct results



SCRIPTY WITH IMPLEMENTATION DETAILS

Scenario: Search for a book

Given the following catalog:

Title	Author
A Tale of Two Cities	Charles Dickens
Crime and Punishment	Fyodor Dostoyevsky
East of Eden	John Steinbeck

And I'm on the bookstore home page

When I fill in "Dickens" in the search field

And I click "Search"

Then I should see only "A Tale of Two Cities" in the results



EXCESSIVE DETAIL

Scenario: Search for a book

Given the following catalog:

Title	Author	Publisher	ISBN
A Tale of Two Cities	Charles Dickens	Qualitas Classics	1897093594
Crime and Punishment	Fyodor Dostoyevsky	Simon & Brown	1936041030
East of Eden	John Steinbeck	Penguin	0142000655

When I search for "Dickens"

Then I should see only the following in the results:

Title	Author	Format	Price
A Tale of Two Cities	Charles Dickens	Paperback	\$14.90

SWEET SPOT

Scenario: Search for a book

Given the following catalog:

Title	Author
A Tale of Two Cities	Charles Dickens
Crime and Punishment	Fyodor Dostoyevsky
East of Eden	John Steinbeck

When I search for "Dickens"

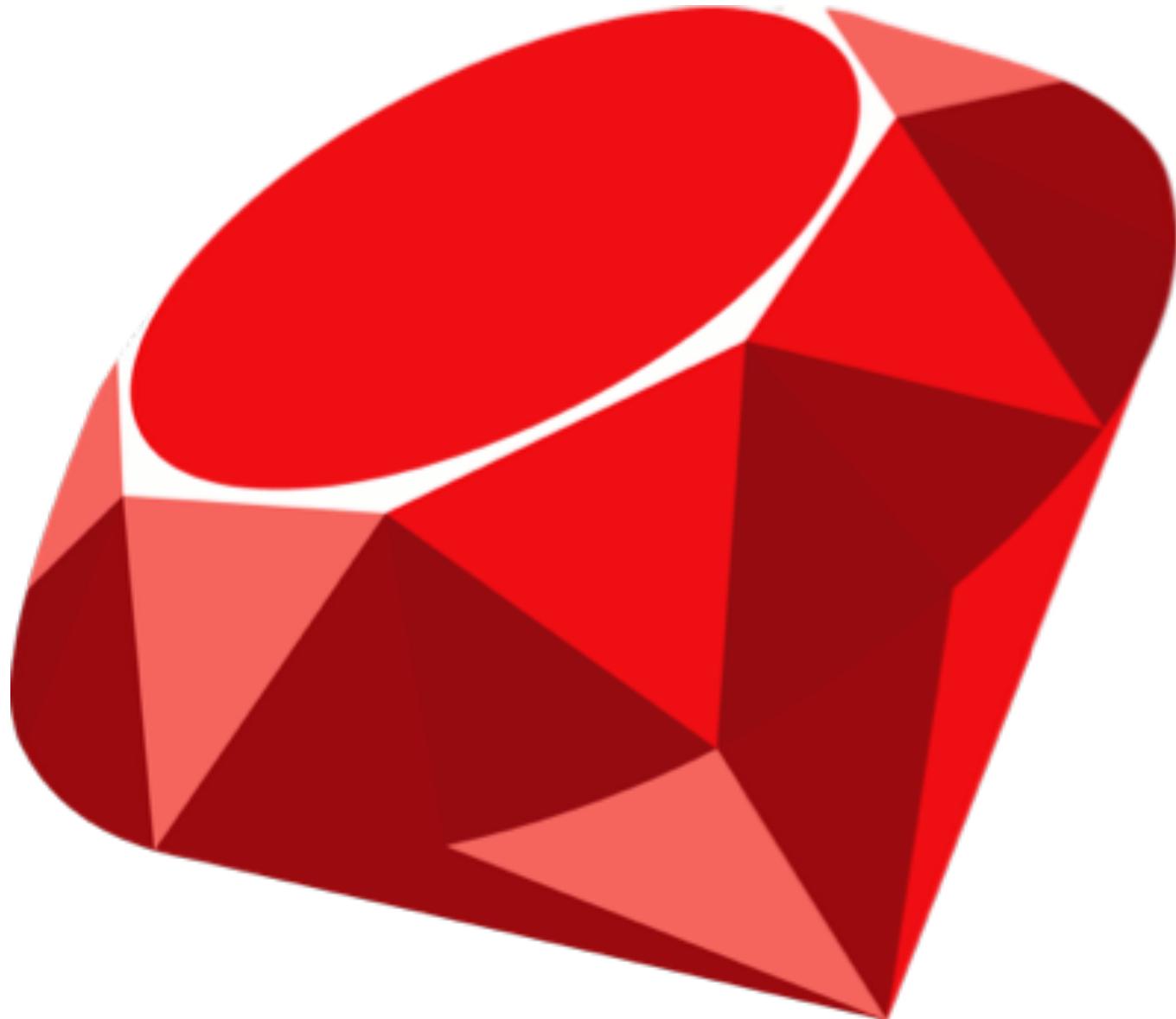
Then I should see only "A Tale of Two Cities" in the results





LETS WRITE
SOME CODE!





WHY RUBY

cucumber

watir

page-
object

rspec

nokogiri

active-
record

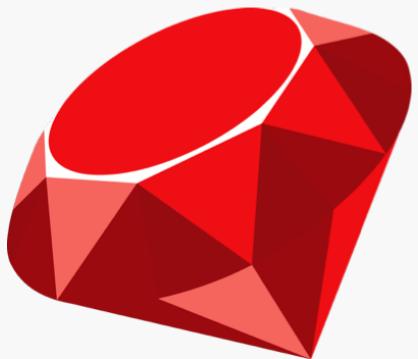
factory-
girl

sinatra





SETUP CHECK



1

Open the
browser

2

Go to the
puppies site

3

Wait 5
seconds

4

Close the
browser

FIRST SCRIPT

IDENTIFYING ELEMENTS

Element type	Identifier	Action to perform
button (:value => ‘View Details’)		.click





LETS ADOPT A PUPPY

- 1. Go to puppy adoption site
- 2. View the details of the first puppy

```
browser.button(:value => 'View Details').click
```

- 3. Add puppy to cart by clicking “Adopt Me!”
- 4. Enter checkout process





LETS ADOPT A PUPPY

- 5. Enter checkout information

```
browser.text_field(:id => 'order_name').set '<name>'  
browser.textarea(:id => 'order_address').set '<address>'  
browser.text_field(:id => 'order_email').set '<email>'  
browser.select_list(:id => 'order_pay_type').select 'Check'  
browser.button(:value => 'Place Order').click
```

- 6. Click the Place Order button





INTRODUCTION TO CUCUMBER





CAN YOU
ADOPT A TWO
PUPPIES?



1. Authors: Jeff Morgan

Book: Cucumber and Cheese: A Testers Wokshop

Publisher: LeanDog Inc. ©2015

ISBN: 978-0692422502

2. Authors: Jeff Patton, Peter Economy

Book: User Story Mapping: Discover the Whole Story, Build the Right Product

Publisher: O'Reilly Media, Inc. ©2014

ISBN: 1491904909 9781491904909

3. Authors: Eric Evans

Book: DOMAIN-DRIVEN DESIGN: : Tacking Complexity In the Heart of Software

Publisher: Addison-Wesley Longman Publishing Co., Inc. ©2003

ISBN:0321125215

4. Authors: Jonathan Rasmusson

Book: The Agile Samurai: How Agile Masters Deliver Great SoftwarePublication

Pragmatic Bookshelf ©2010

ISBN:1934356581 9781934356586

SOURCES

QUESTIONS?



THANK YOU!



dougmorganCLE



dmorgan3405

Please share your feedback through the Codemash App!

