



W3

Test Automation

Wednesday, May 2nd, 2018

11:30 AM

Automated Testing: Beyond the Basics

Presented by:

Jim Holmes

Guidepost Systems

Brought to you by:



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Jim Holmes

Guidepost Systems

Jim Holmes is an executive consultant at Pillar Technology where he works with organizations to improve their software delivery process. he is also the owner/principal of Guidepost Systems which lets him engage directly with struggling organizations. Since joining the US Air Force in 1982, Jim has been in various corners of the IT world. He has worked with organizations—ranging from start-ups to Fortune 10 companies—to improve their delivery processes and ship better value to their customers. When not at work, you may find Jim in the kitchen with a glass of wine, playing Xbox, hiking with his family, or banished to the garage while practicing his guitar.

Automated Testing

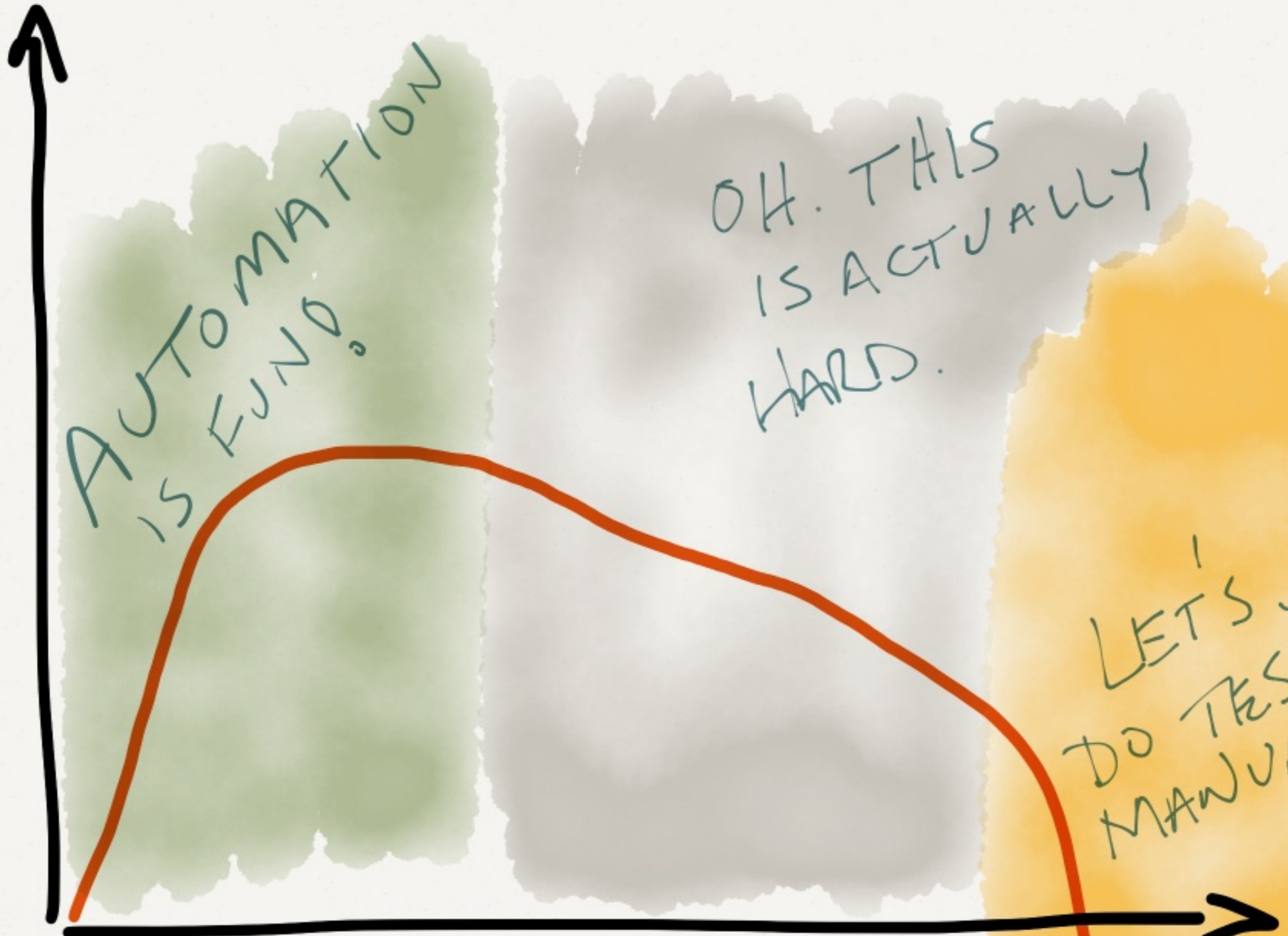
Beyond The Basics

Slides:

SpeakerDeck.com/JimHolmes

A Story of Woe

ENTHUSIASM



AUTOMATION IS FUN!

OH. THIS IS ACTUALLY HARD.

LET'S JUST DO TESTS MANUALLY

TIME

**What's
YOUR
*Current State?***

Slow

Brittle

High Maintenance Cost

WTFITWBWH

What The **FHECK**

is Tested By

What Where How

Trust

Deficit

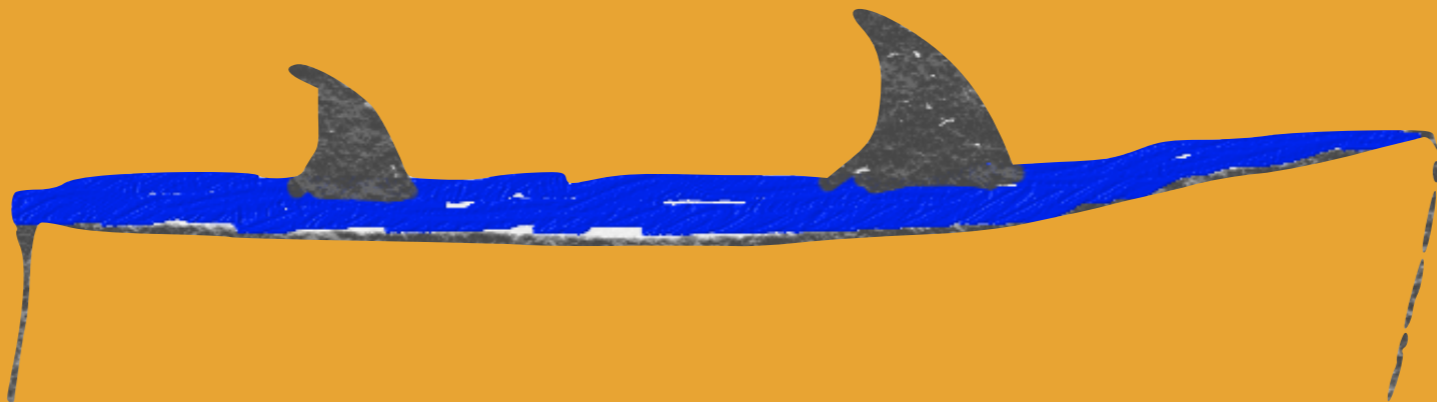
Automation's Goals?

FAST FEEDBACK LOOPS



ALERT!
ALERT!
ALERT!

SAFETY NET



Teams Test!

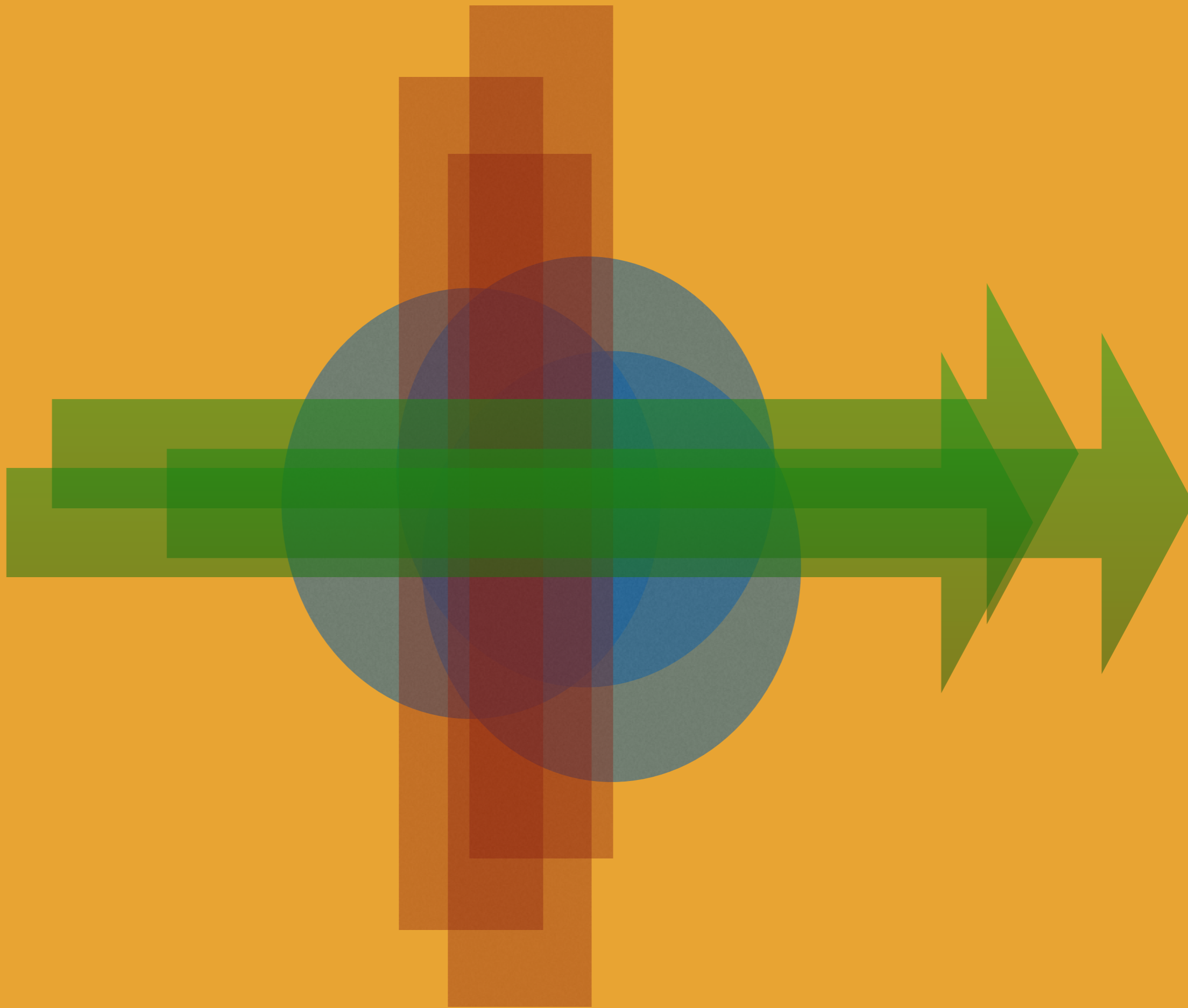
TRUST

Let's Talk Fixes

**First and
Foremost:
Be Thoughtful**

Good Coverage

Reduce Overlap



Fix:

TALK!

Understand Data Flows

UI

CONTROLLER

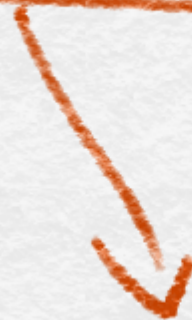
BIZ

LOCAL STORAGE

SEND
TO
WEB SERVICE

WEB
SERVICE

BIZ



EXCEL

PDF

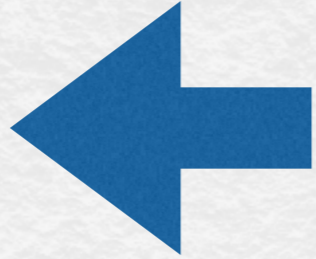
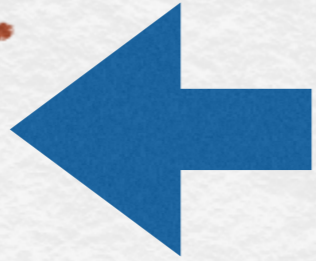
UI

CONTROLLER

BIZ

LOCAL STORAGE

SEND
TO
WEB SERVICE



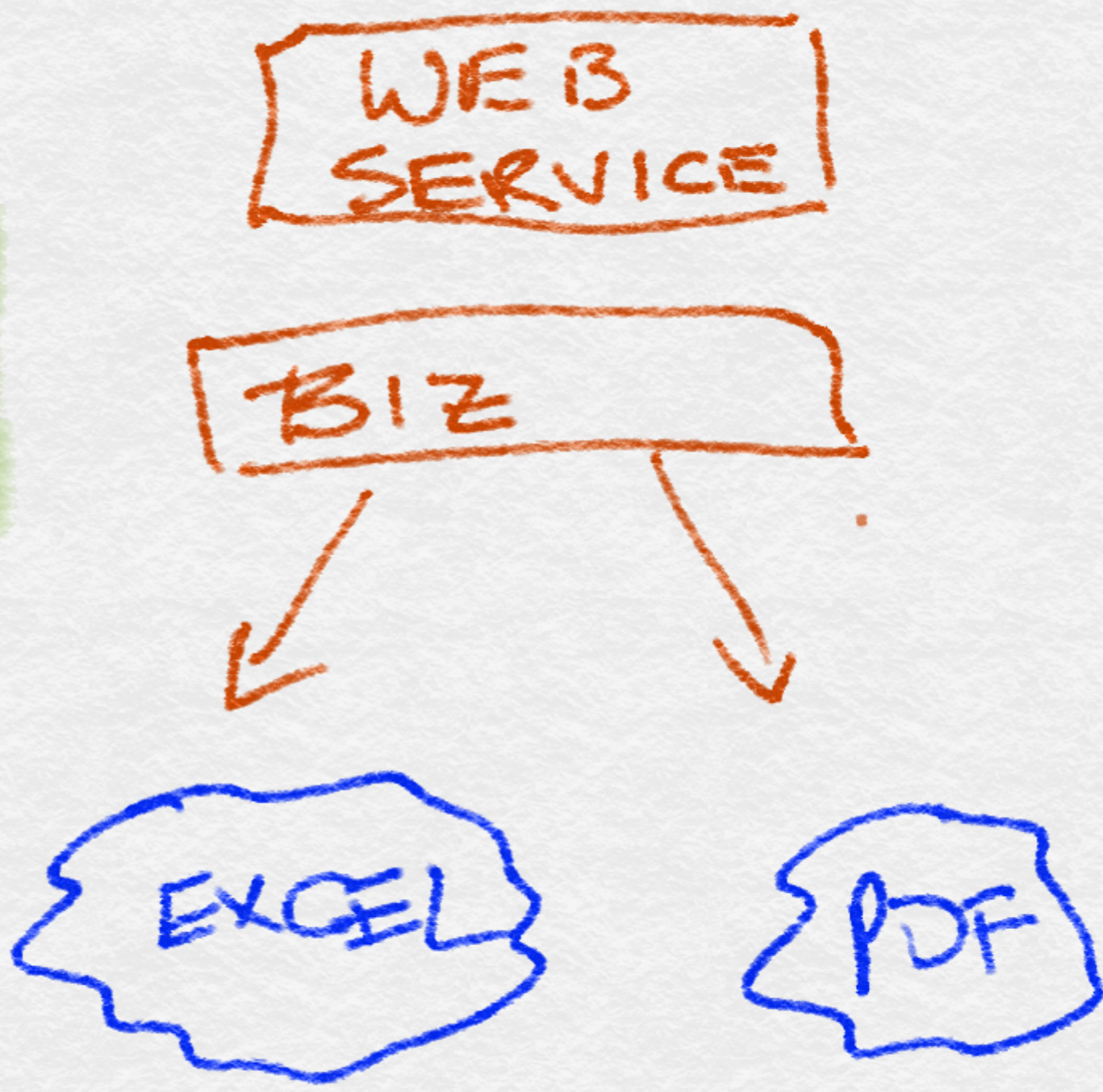
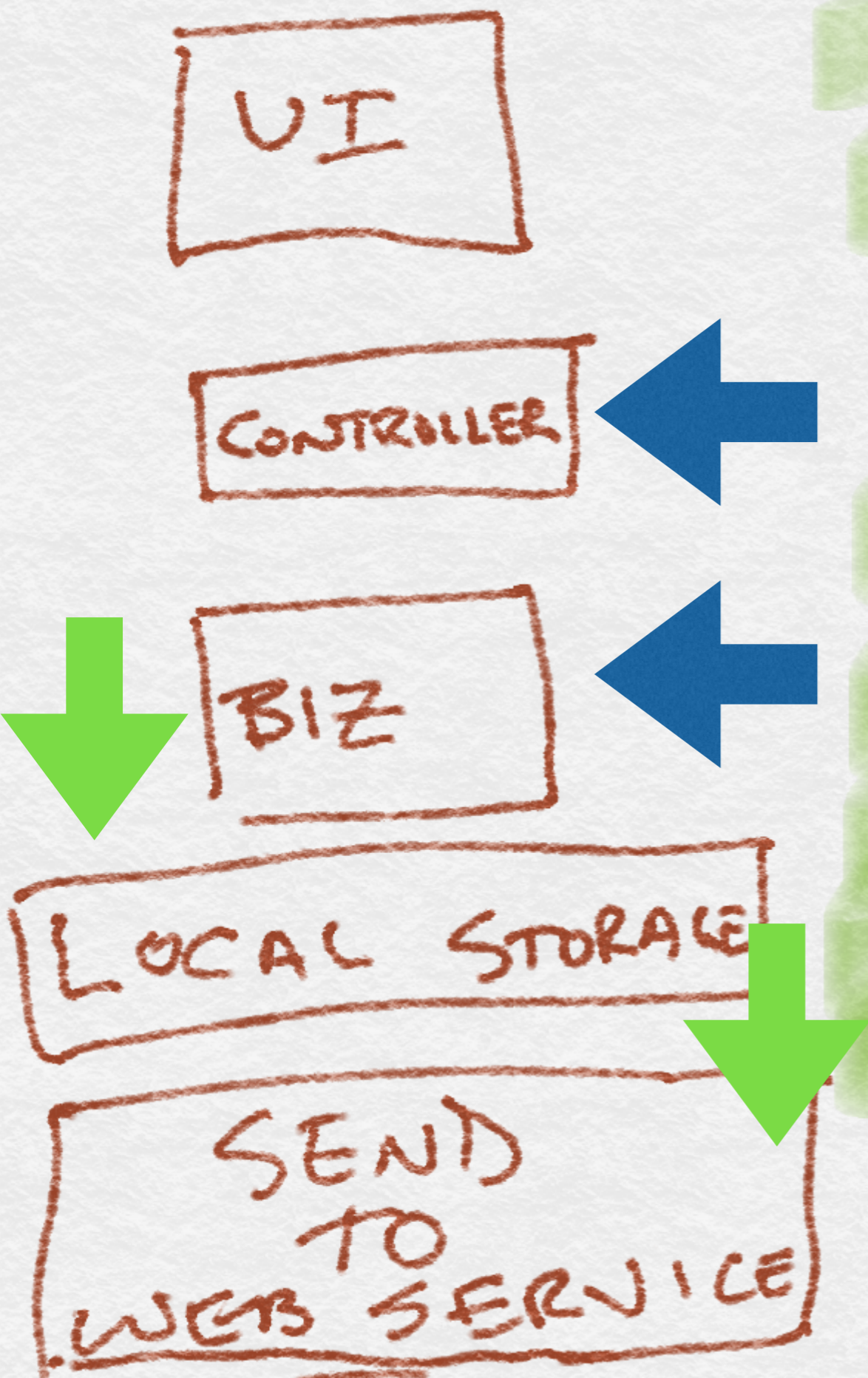
WEB
SERVICE

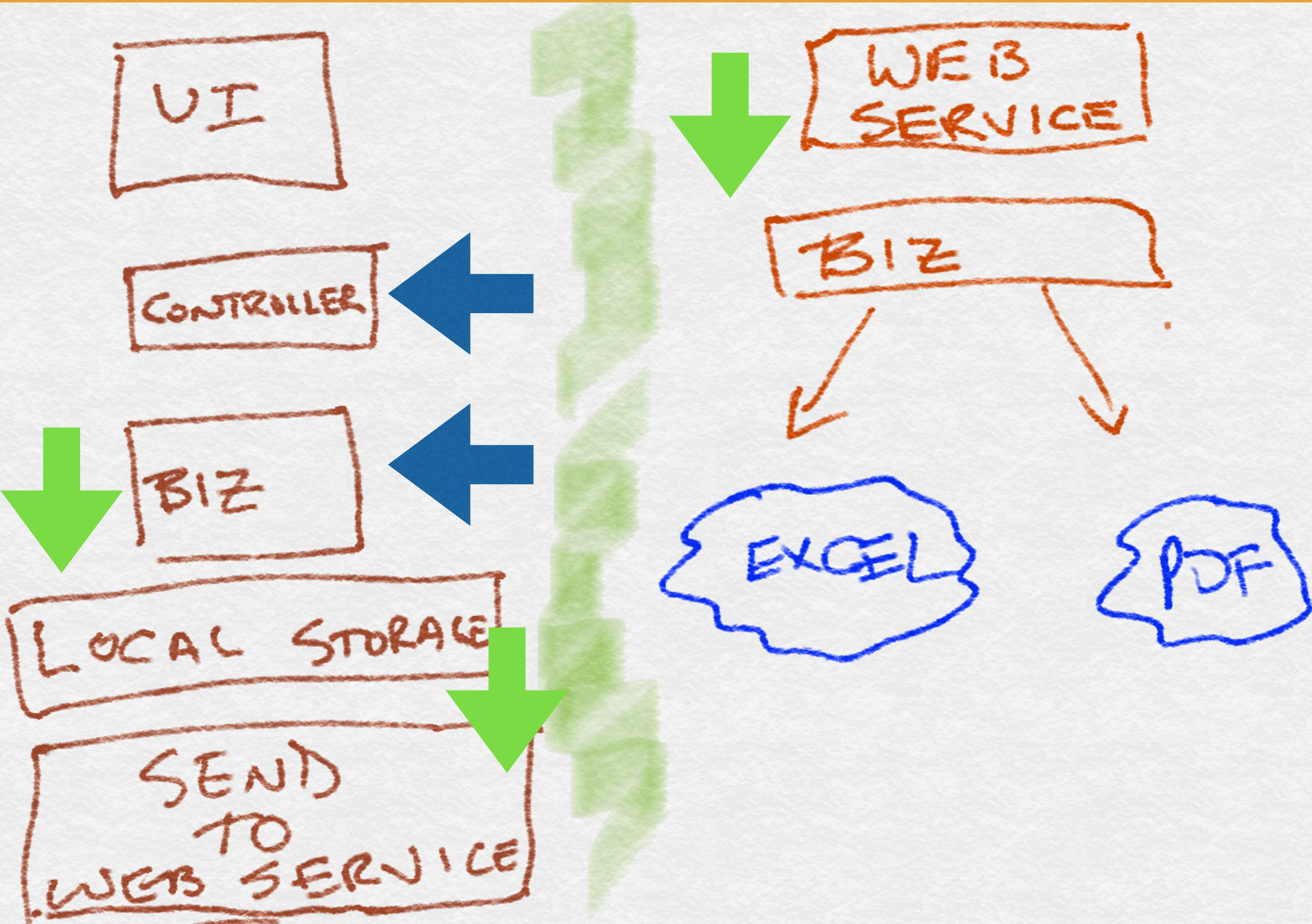
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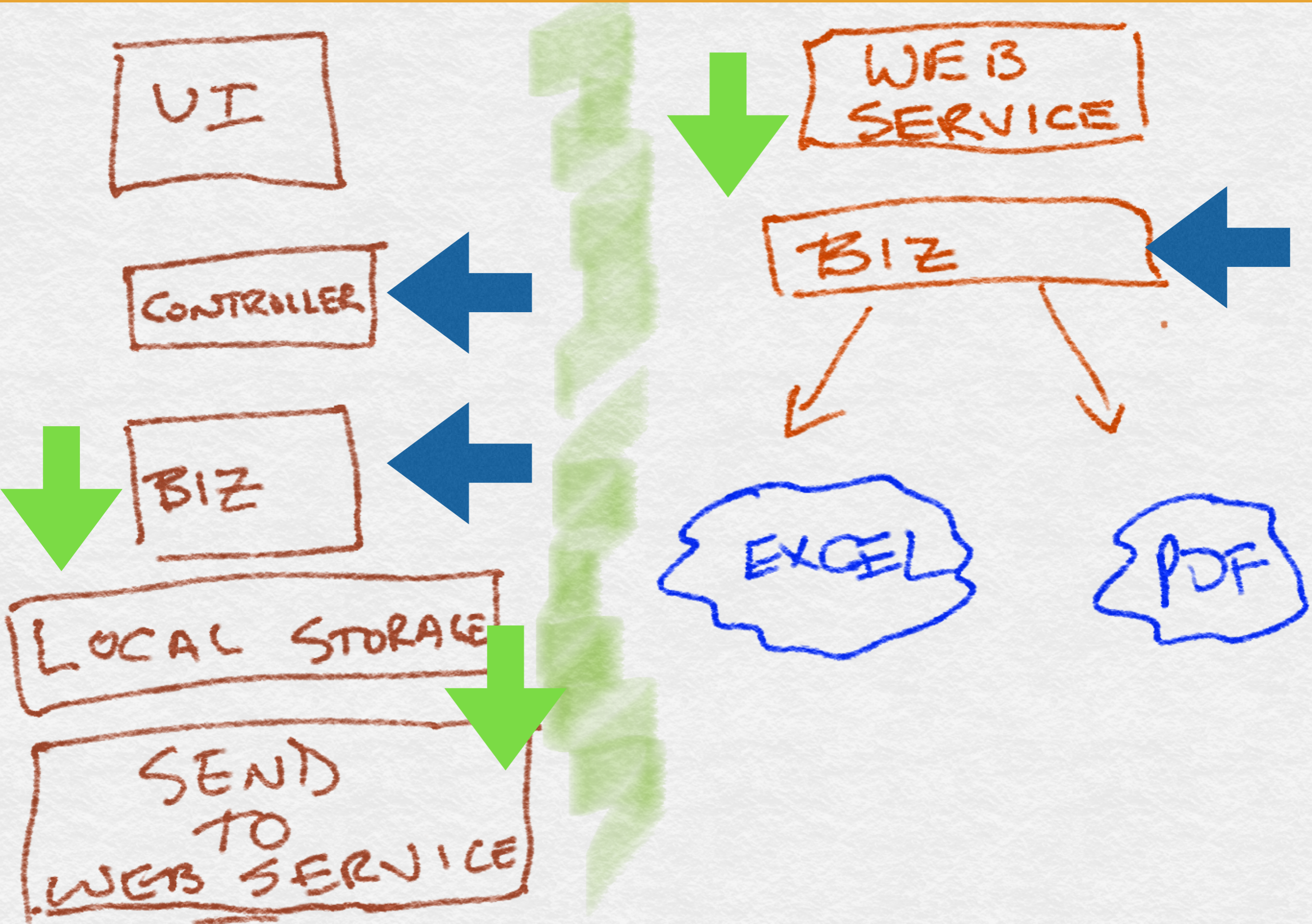


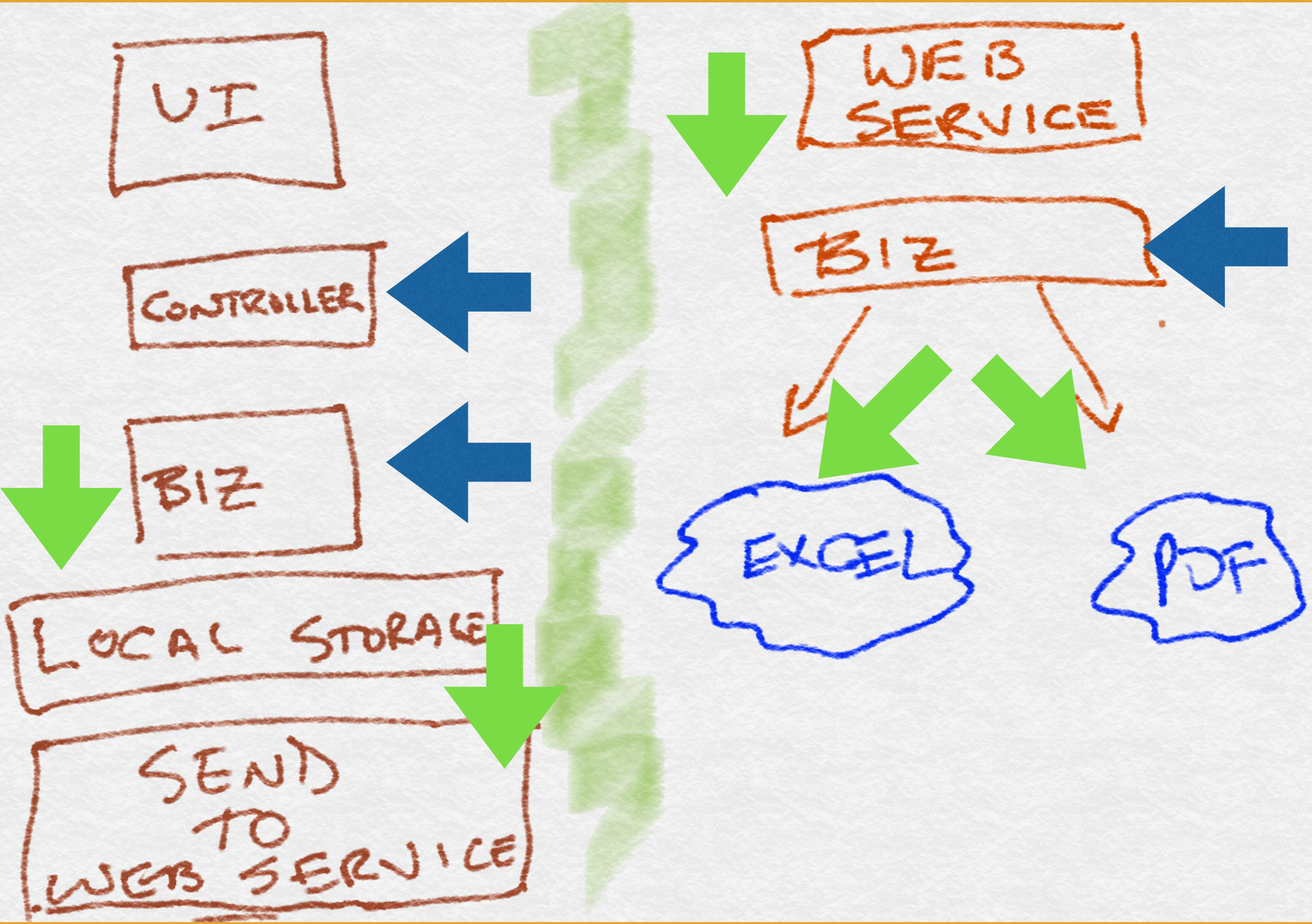
EXCEL

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Fix:

MORE TALK!

**Don't Test
Stupid Stuff**

**Don't Test Low Value
Less Optimal Stuff
That Someone's
Already Tested Or Is
a Dependency You
Don't Want**

Gmail

**3rd Party
Controls**

CAPCHA

SharePoint

Test Code

is

Production Code!

Software

Craftsmanship

DRY

Don't Repeat Yourself

SRP

**Single Responsibility
Principle**

Cucumber =>

Step Definitions

CopyProductCatalogItem

EditProductCatalogItem

DeleteProductCatalogItem

TransmitBookingOrder

HandleRejectedBookingOrder

WashJimsCar

FixJimsCar

ReplaceJimsCarEngineWithRocket

CopyProductCatalogItem
 GetAProductItem

EditProductCatalogItem
 GetAProductItem

DeleteProductCatalogItem
 GetAProductItem

Domain Objects

ProductCatalogItem

BookingOrder

JimsCar

CarEngine

RocketAdapter

CasketForJim

ProductCatalogItem
 GetAProductItem

LogUserOn

FindUserName

UserName.SendText("Jim")

CheckUserIsLoggedIn

FindUserName

UserName=="Jim"

CheckInvalidUserCan'tLogOn

FindUserName

UserName.SendText("B0b")

Page Objects

LogonPage

UserName

LogUserOn

```
LogonPage.UserName="Jim"
```

CheckUserIsLoggedIn

```
"Jim" == LogonPage.UserName
```

CheckInvalidUserCan'tLogOn

```
LogonPage.UserName="B0b"
```

Test Data

**Don't Use UI Tests to Set
up or Configure**

Baseline Datasets

**Store Datasets in
Version Control!**

Custom APIs

**Help tests be granular,
random, and independent**

Support APIs
leverage existing
system APIs

Create

Retrieve

Update

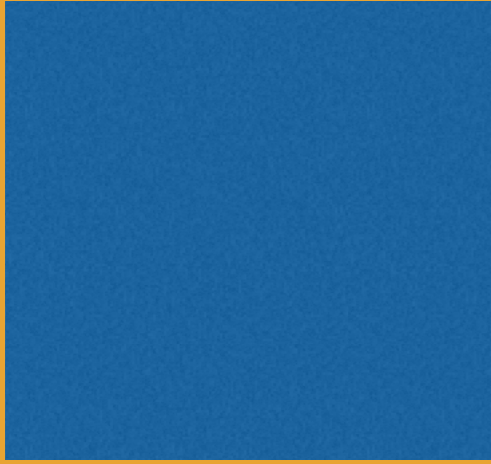
Delete

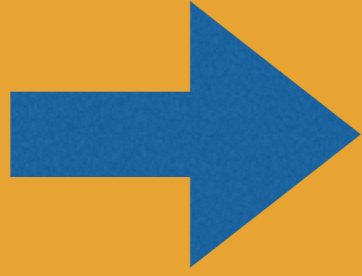
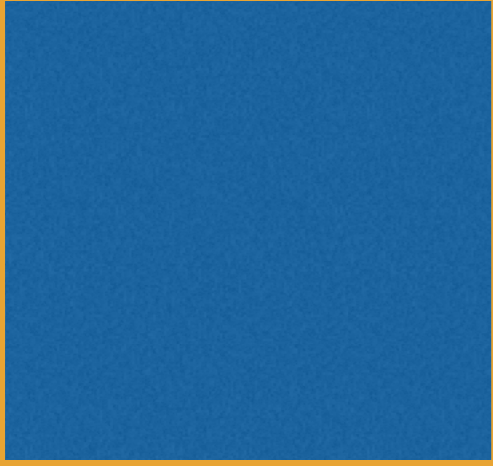
Setup and Teardown

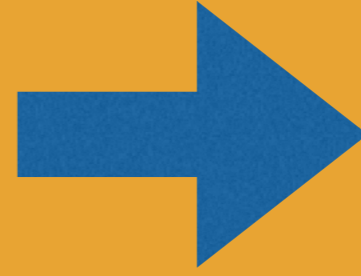
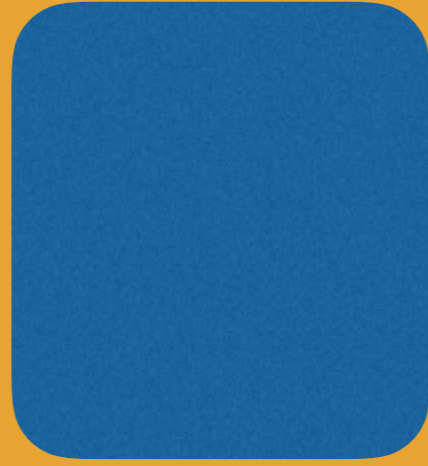
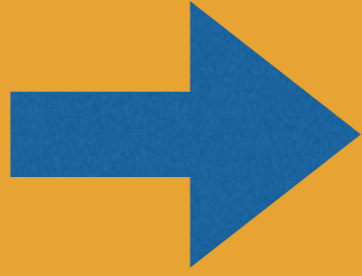
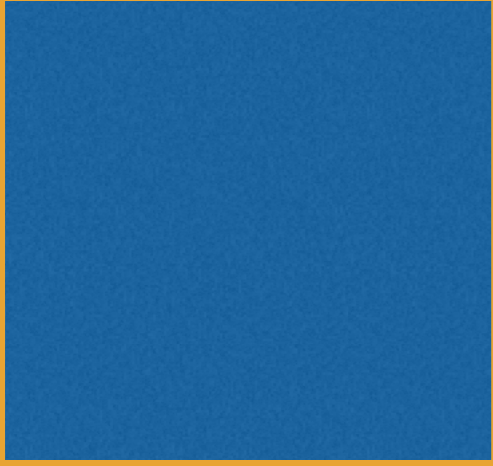
Oracles

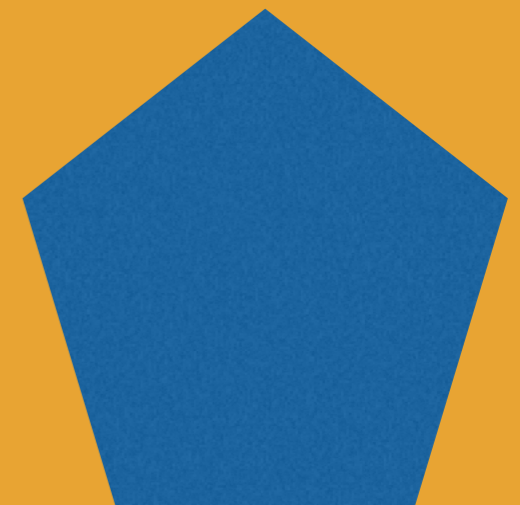
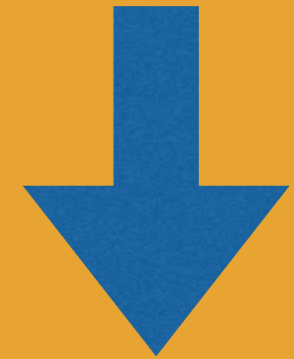
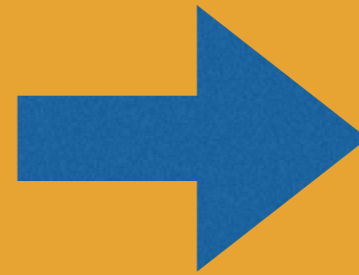
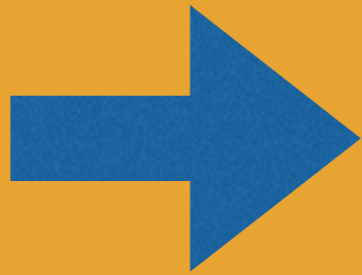
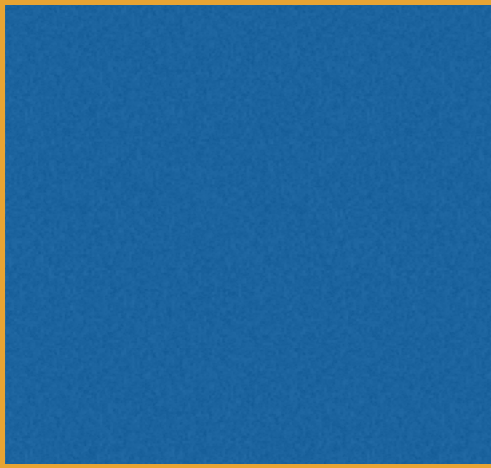
FSAPITBAA

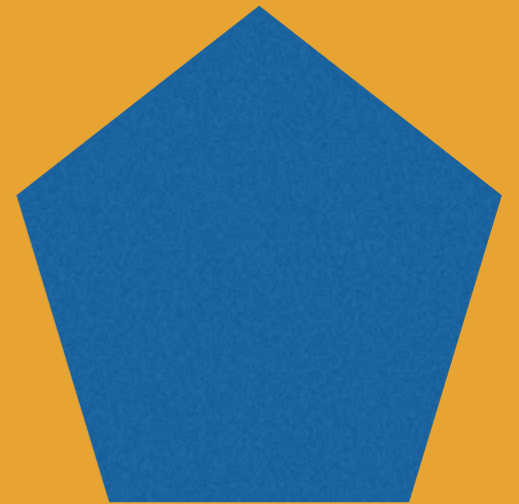
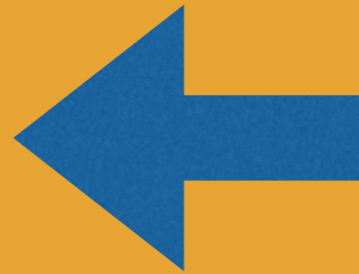
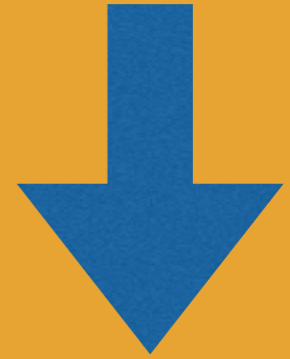
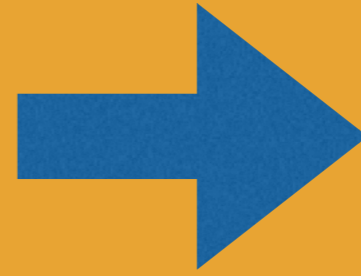
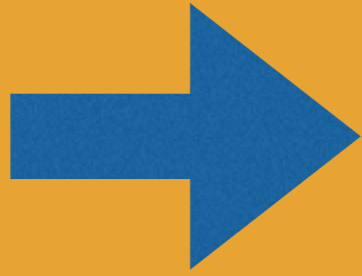
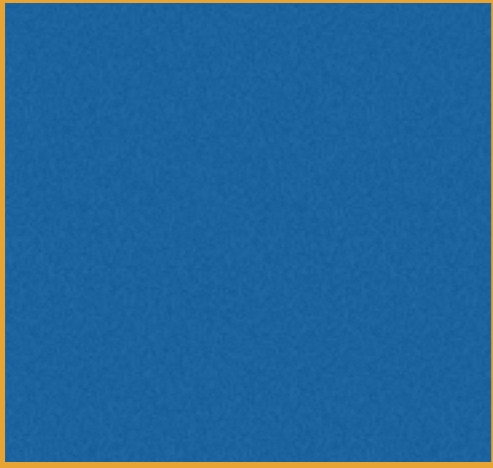
**Freaking Stupid
Assed Pain In The
Butt Async Actions**

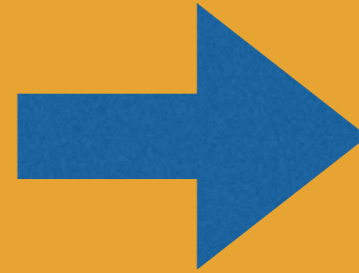
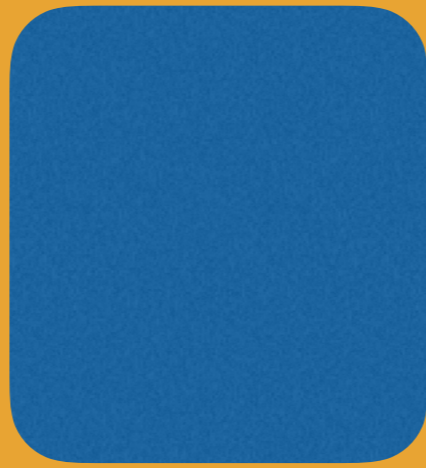
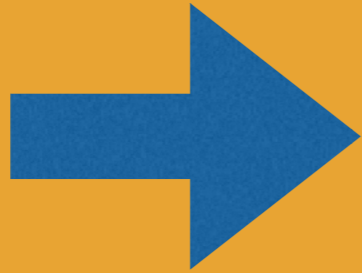
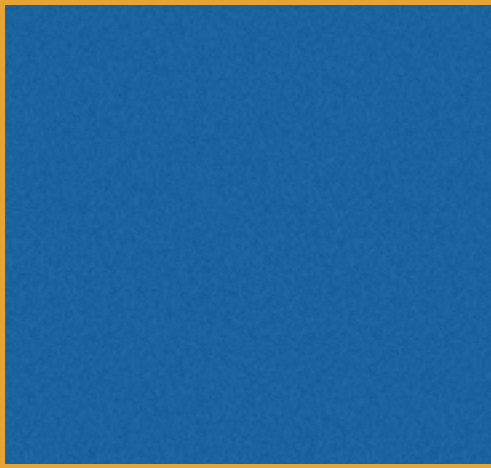




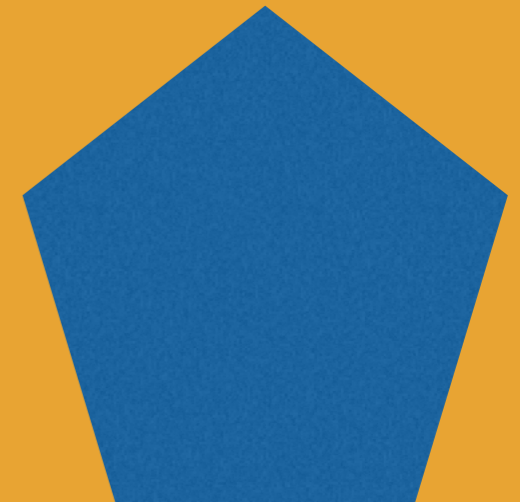
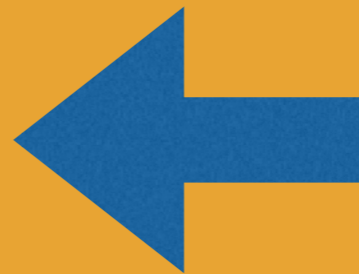








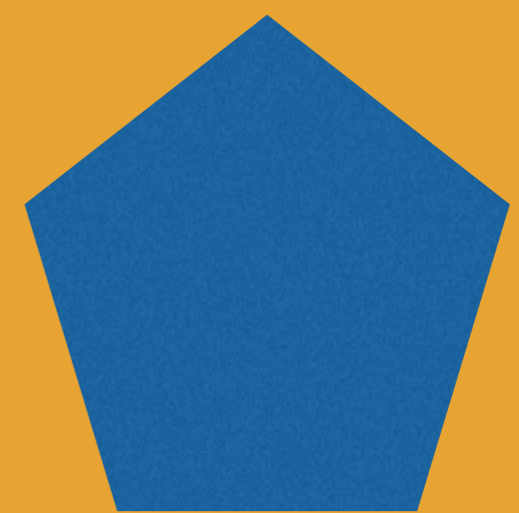
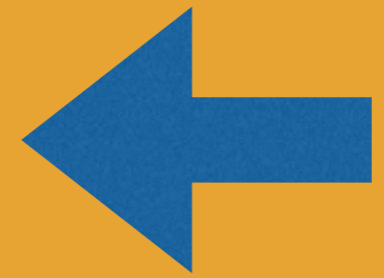
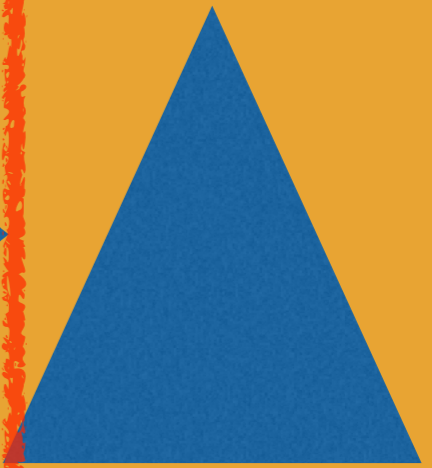
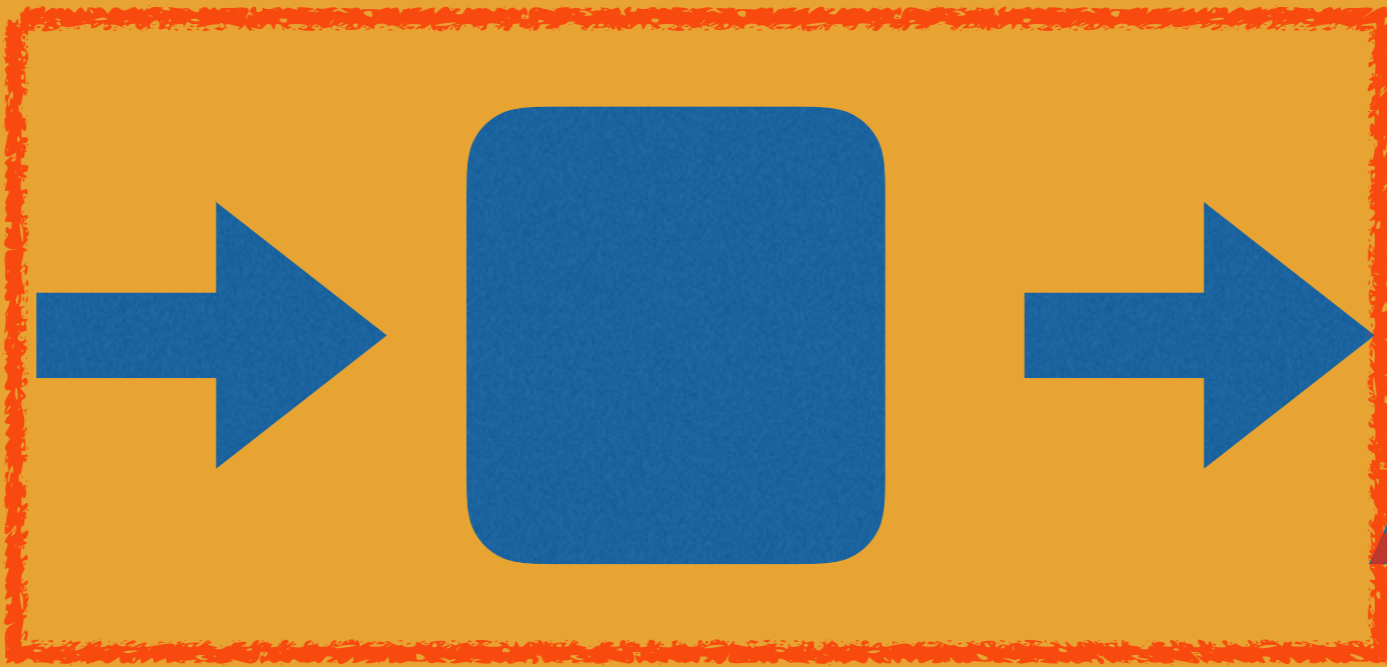
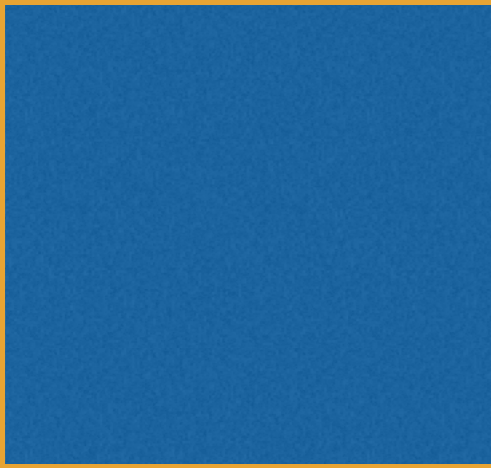
SharePoint





Test in Isolation

**Minimize End-to-
End**



Speed



**Parallelization Solves
Everything!**







Fix Your Dang System!

bit.ly/3HoursTo3Mins

Takeaways:



**Automate
High-Value,
High Risk**

**Avoid
Overlapping
Coverage**

Test Code

is

**Production
Code**

Manage Your Data

Build Out APIs

**Avoid End-To-
End**

Parallelization

as

LAST RESORT

Slides:

**[SpeakerDeck.com/
JimHolmes](https://SpeakerDeck.com/JimHolmes)**

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The Leadership Journey

Practical Tips to Help You Develop Your Leadership Abilities To Their Fullest



"Truly a must have for anyone looking to develop and grow as a leader."

— Alan Page

Jim Holmes

FOREWORD BY ROBERT C. MARTIN

bit.ly/leadershipjourney

0) No SharePoint

B) Hug your loved
ones

RIGHT NOW

THANK
YOU