

We're Sorry, But Something Went Wrong

Aja Hammerly
Seattle.rb

We're sorry, but something went wrong.

Aja Hammerly

@thagomizer_rb

<http://github.com/thagomizer>

<http://www.thagomizer.com>

ELISAPATTA



Overview

- Beginner friendly
- Language agnostic
- No Code :-)

Debugging

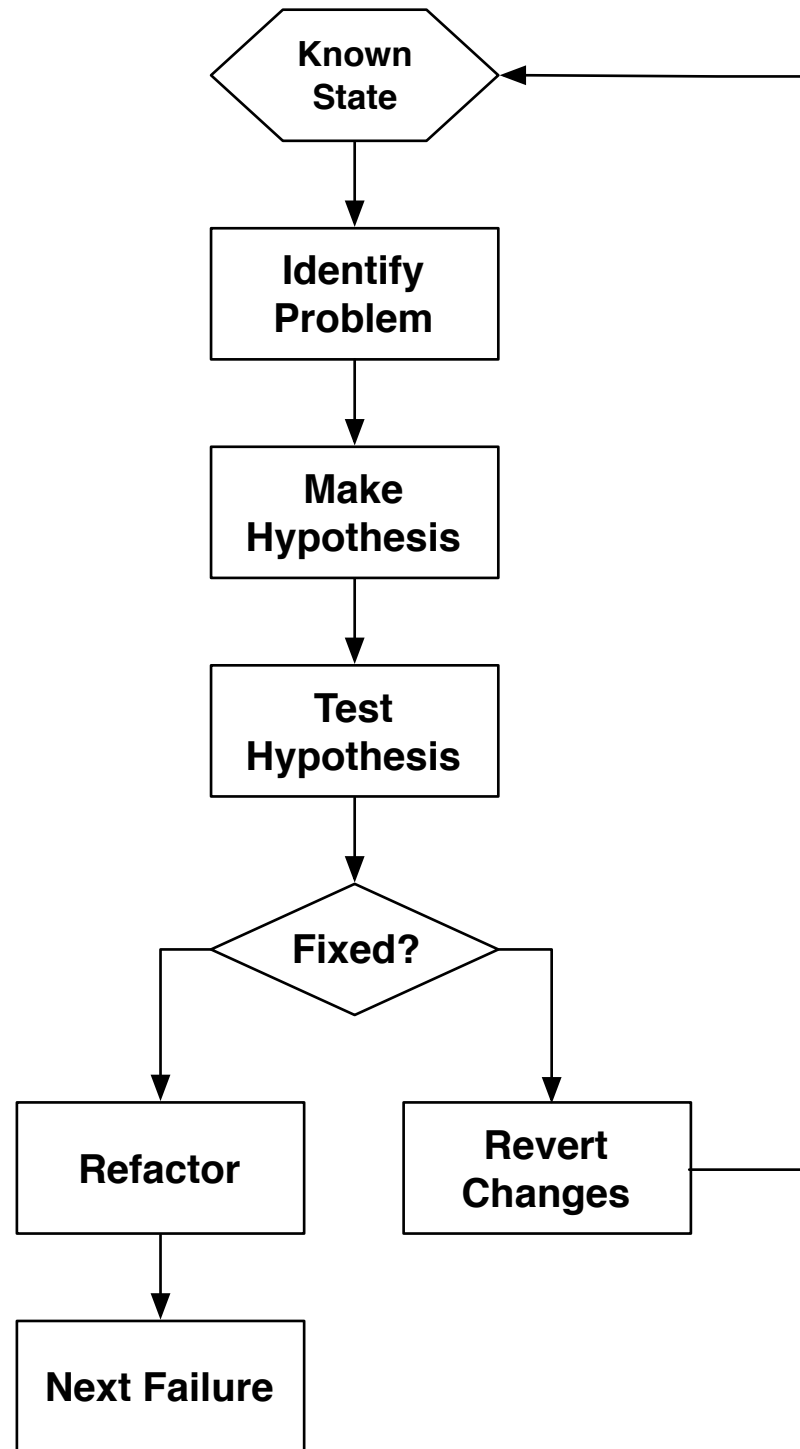
**Now with
100% more
SCIENCE!**

Debugging

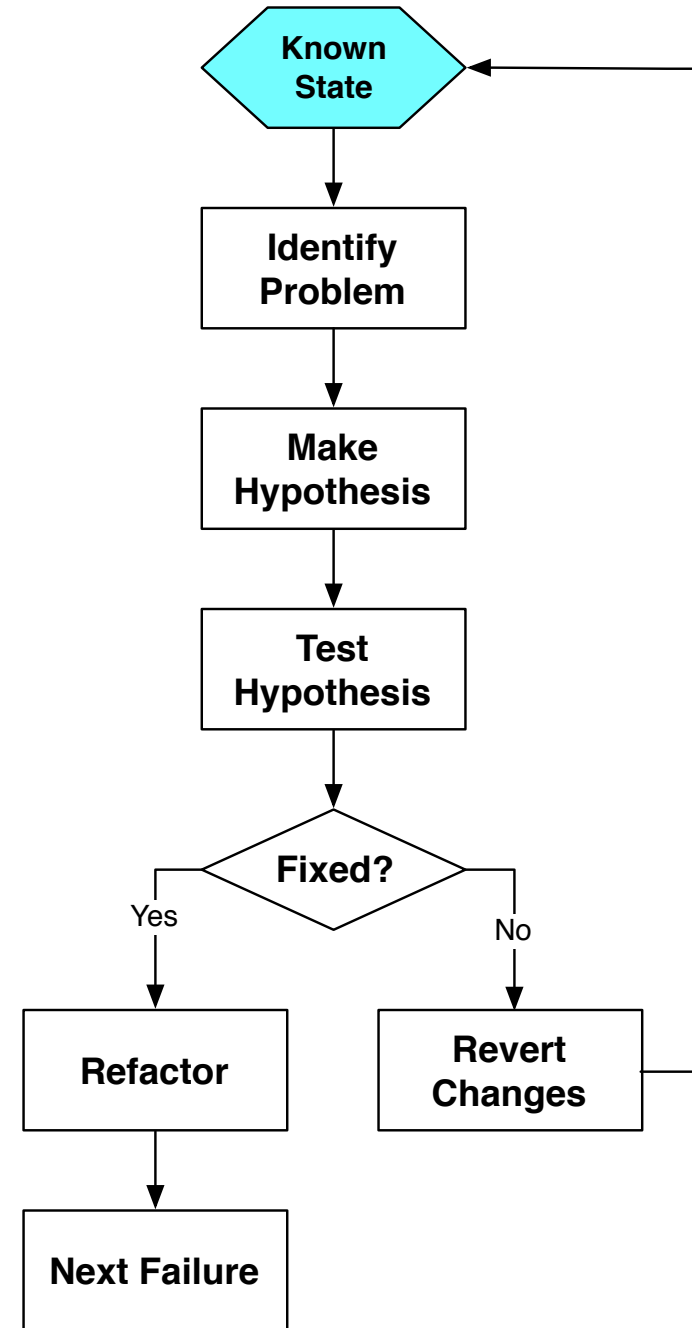


<http://www.flickr.com/photos/dolmansaxlil/5087416903>

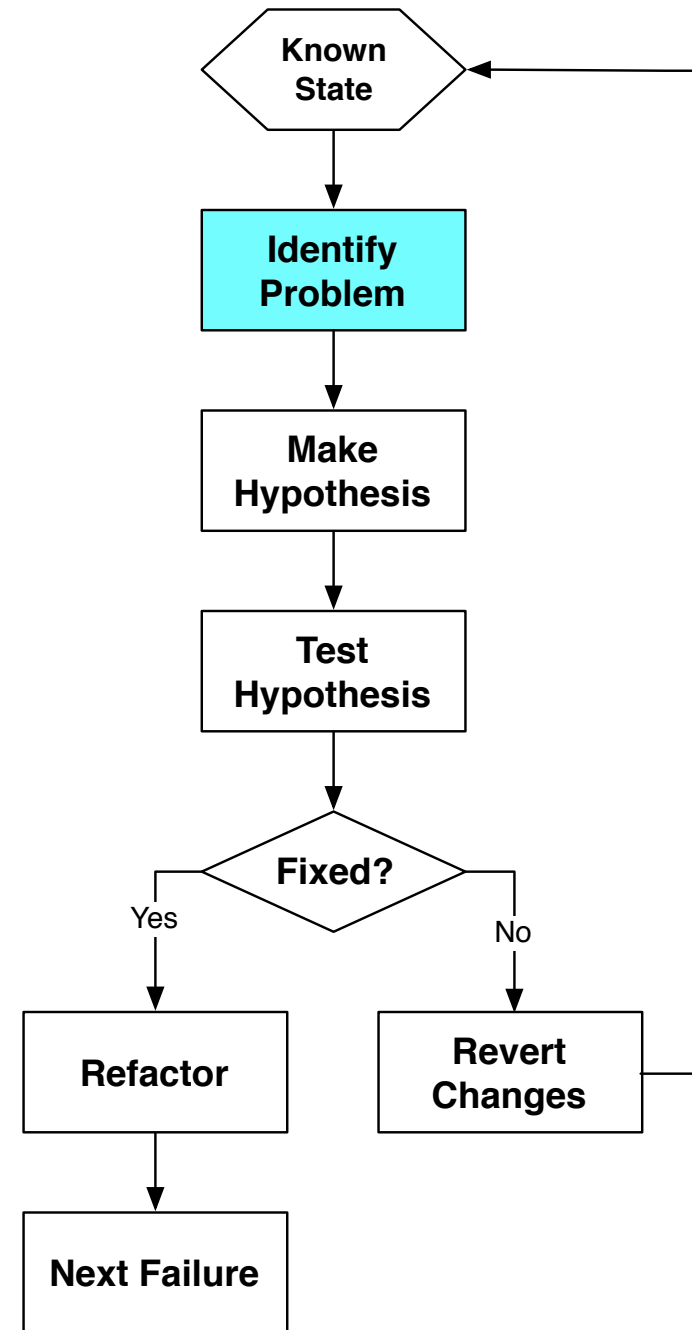
Monday, October 21, 13



Step 0: Known State



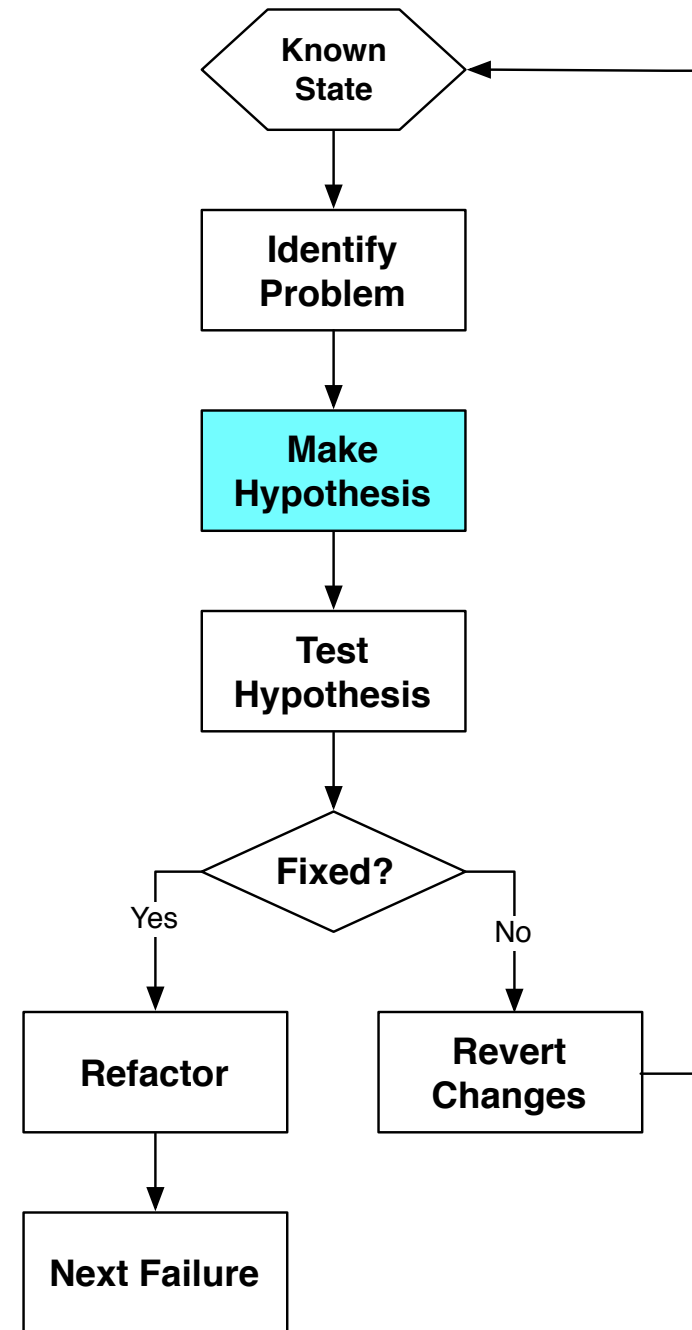
Step 1: Identify A Problem



Focus Small

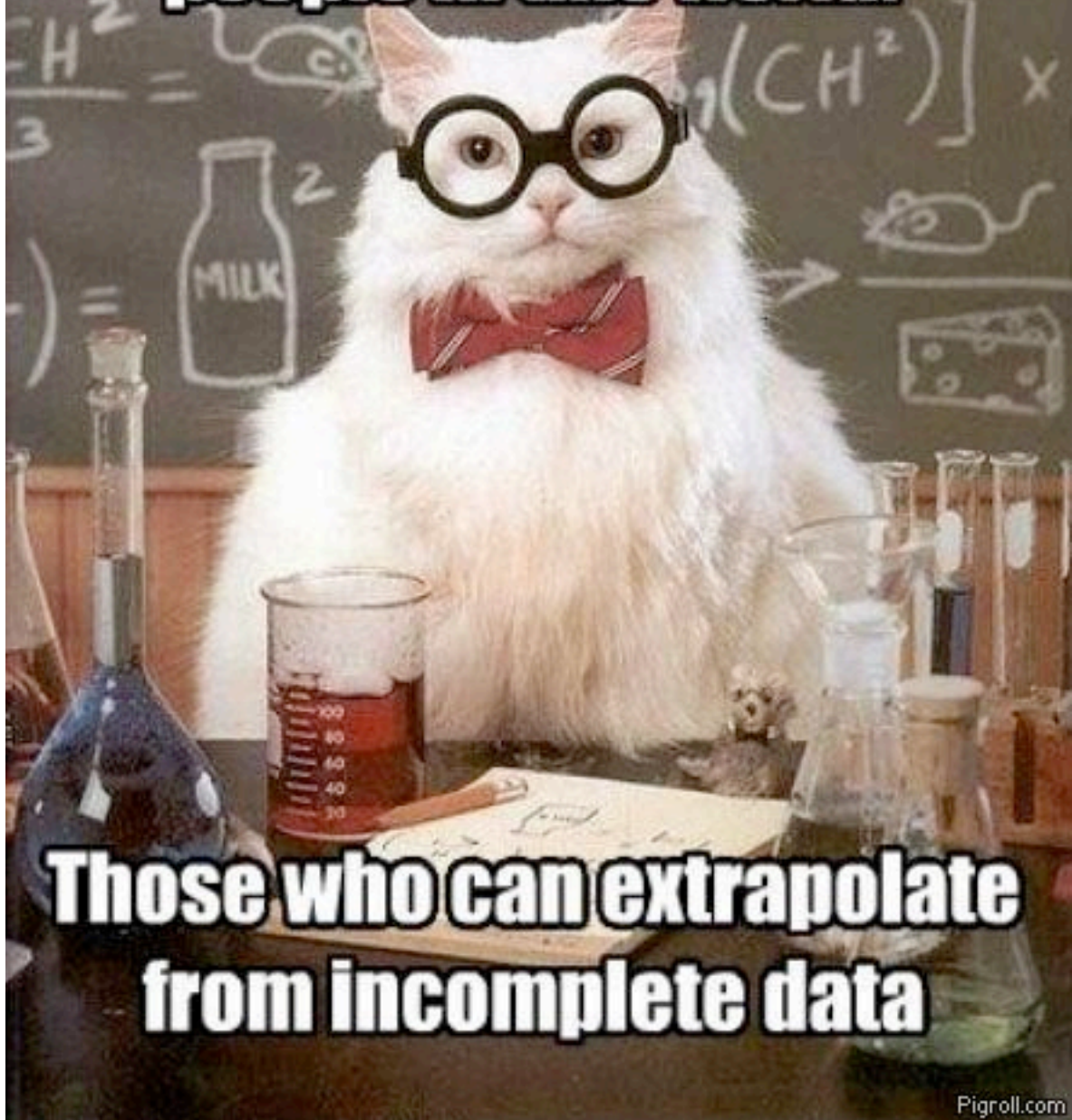
Think Layers

Step 2: Make A Hypothesis



Use Data

There are two types of people in this world:

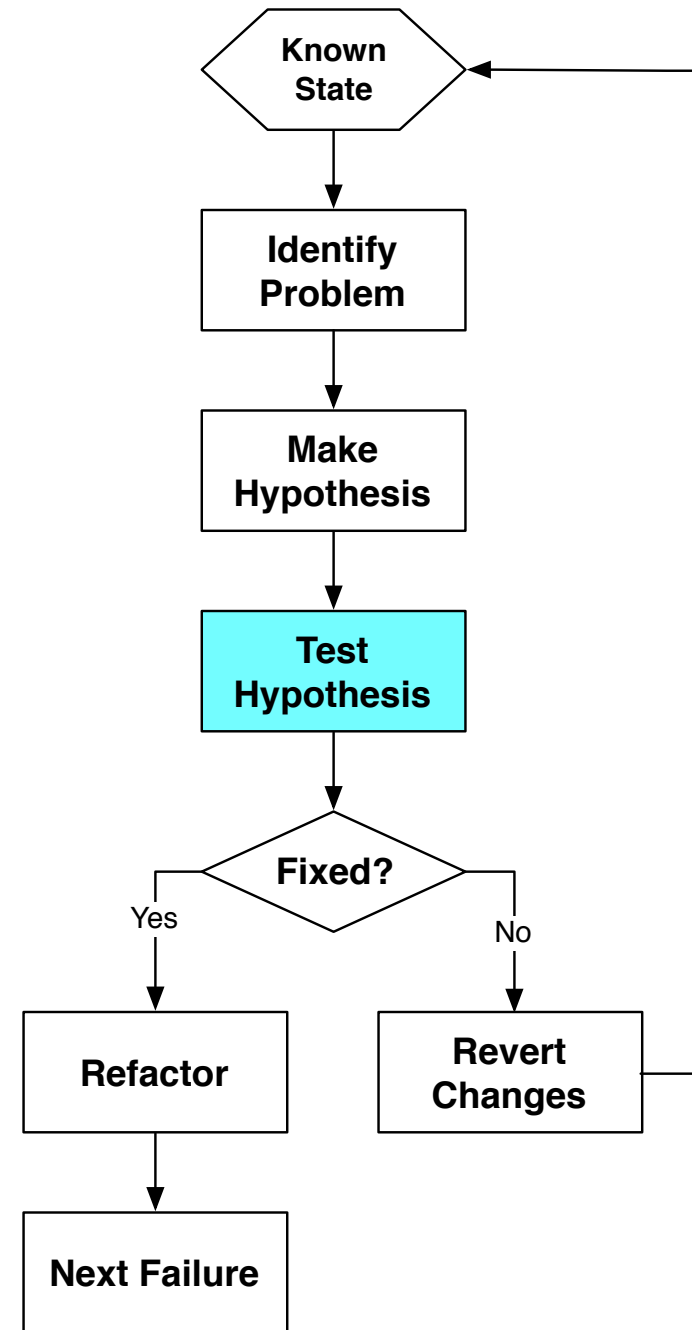


Those who can extrapolate from incomplete data

Pigroll.com

Avoid Conjunctions

Step 3: Test Your Hypothesis

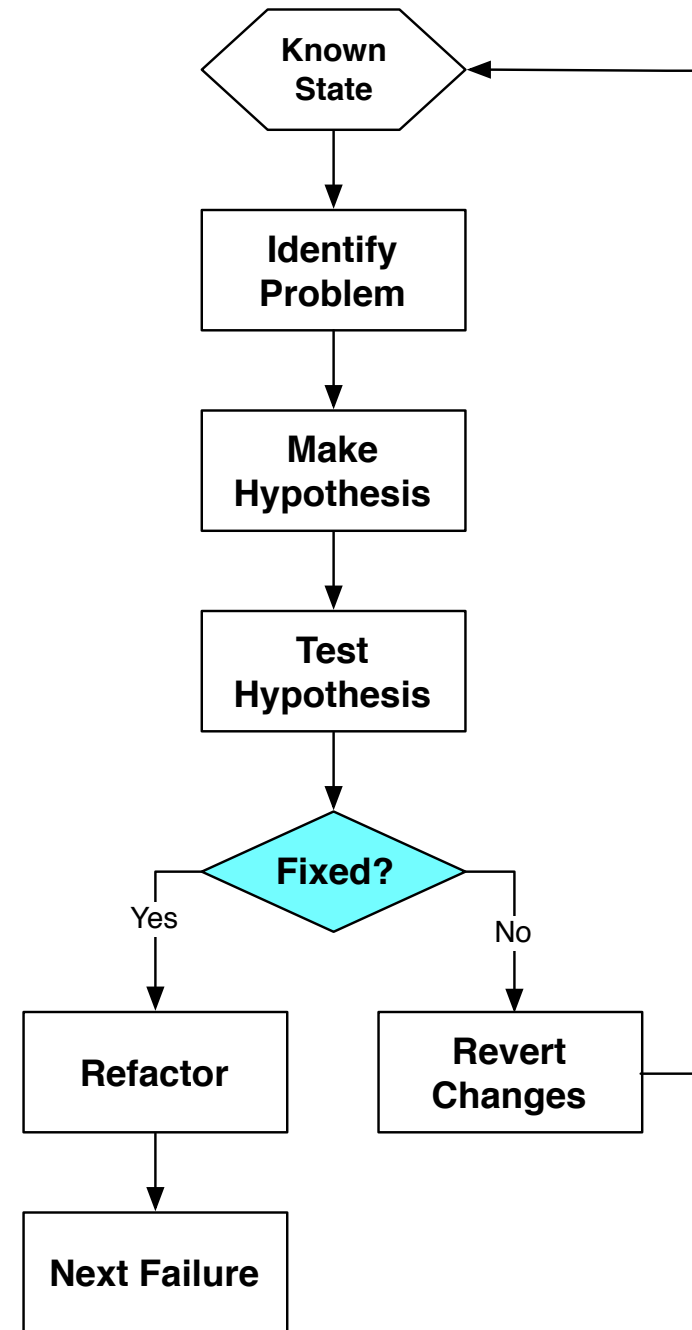


One Thing At A Time

One Thing At A Time

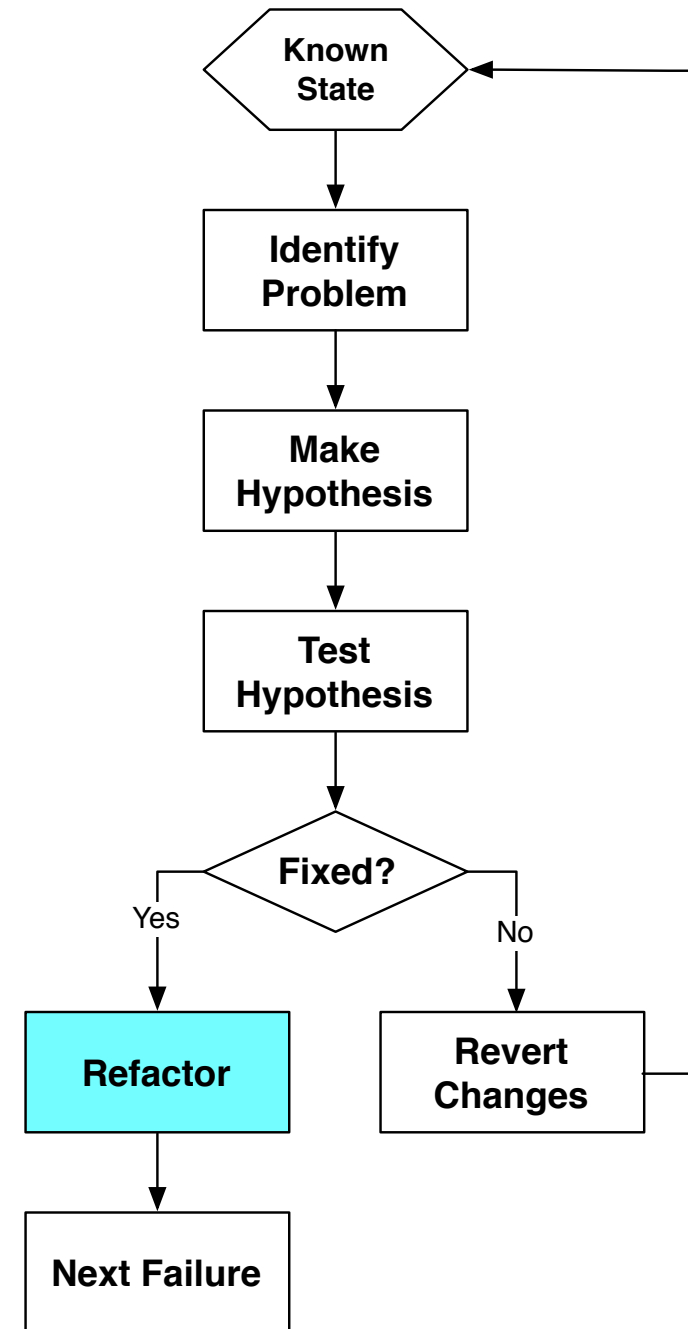
One Thing At A Time

Step 4: Is It Fixed?



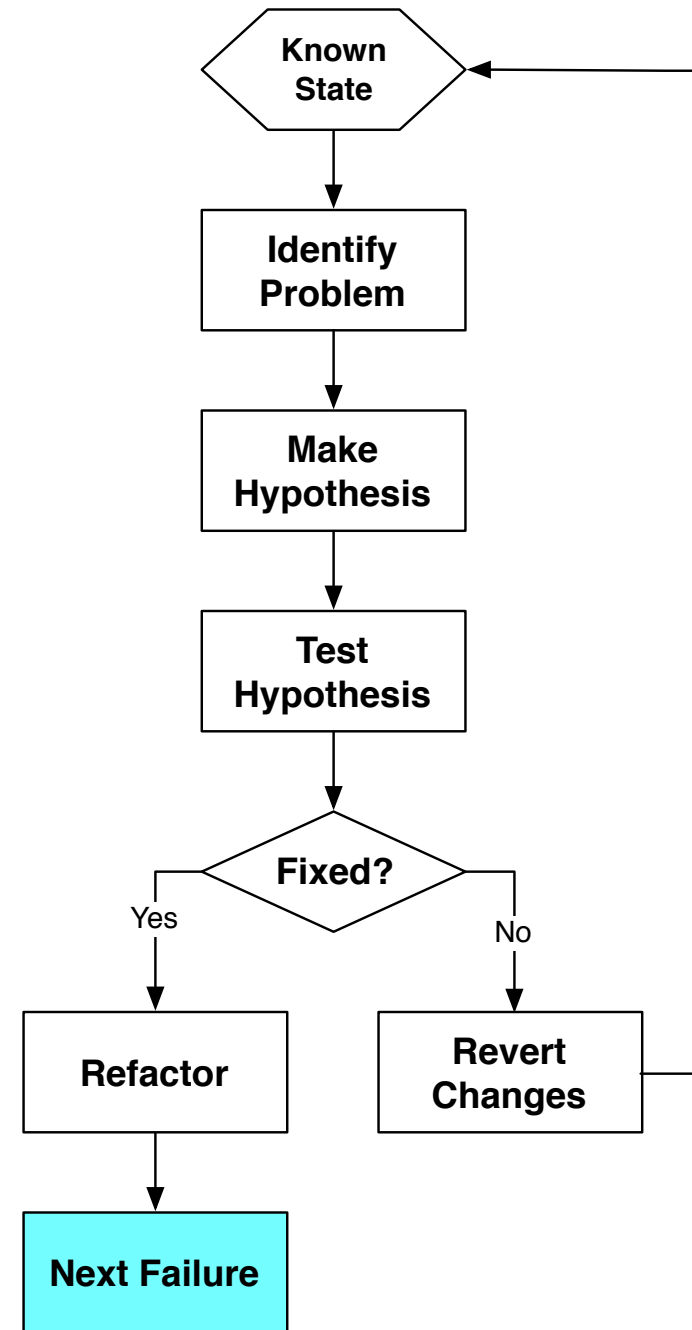
Continuous Testing

Step 5a: Refactor

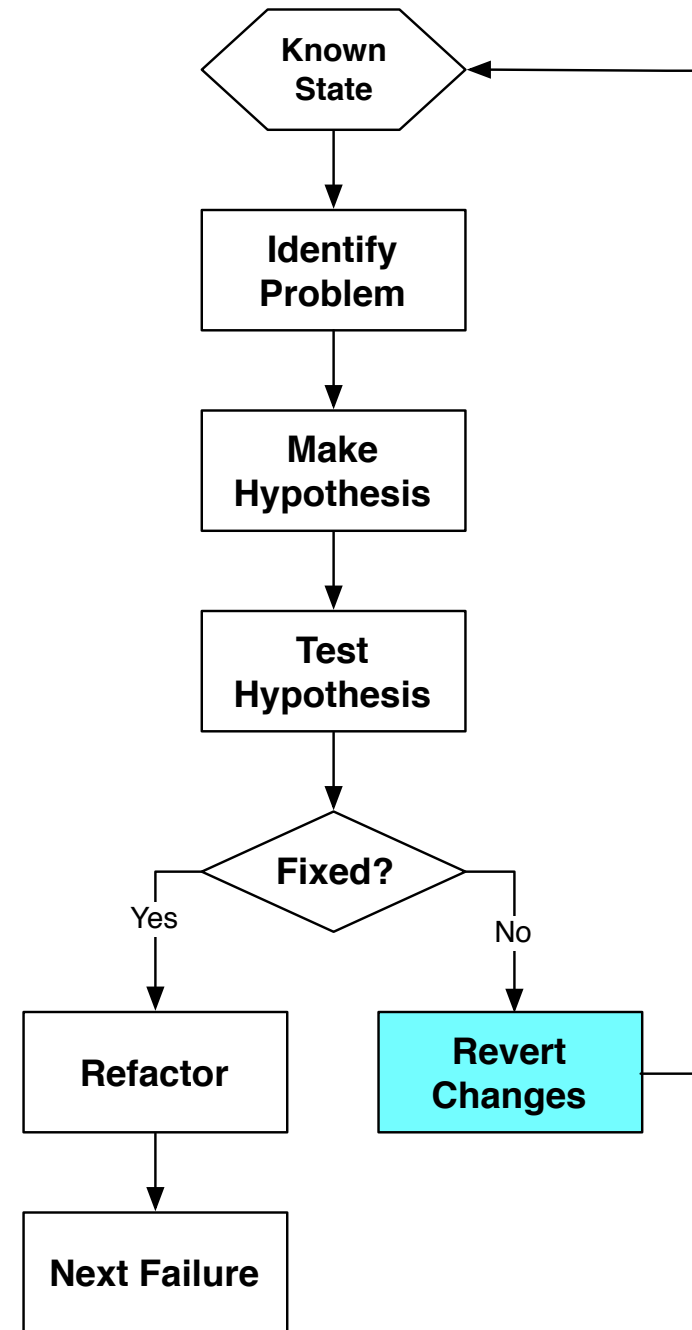


Don't Lose Your Fix

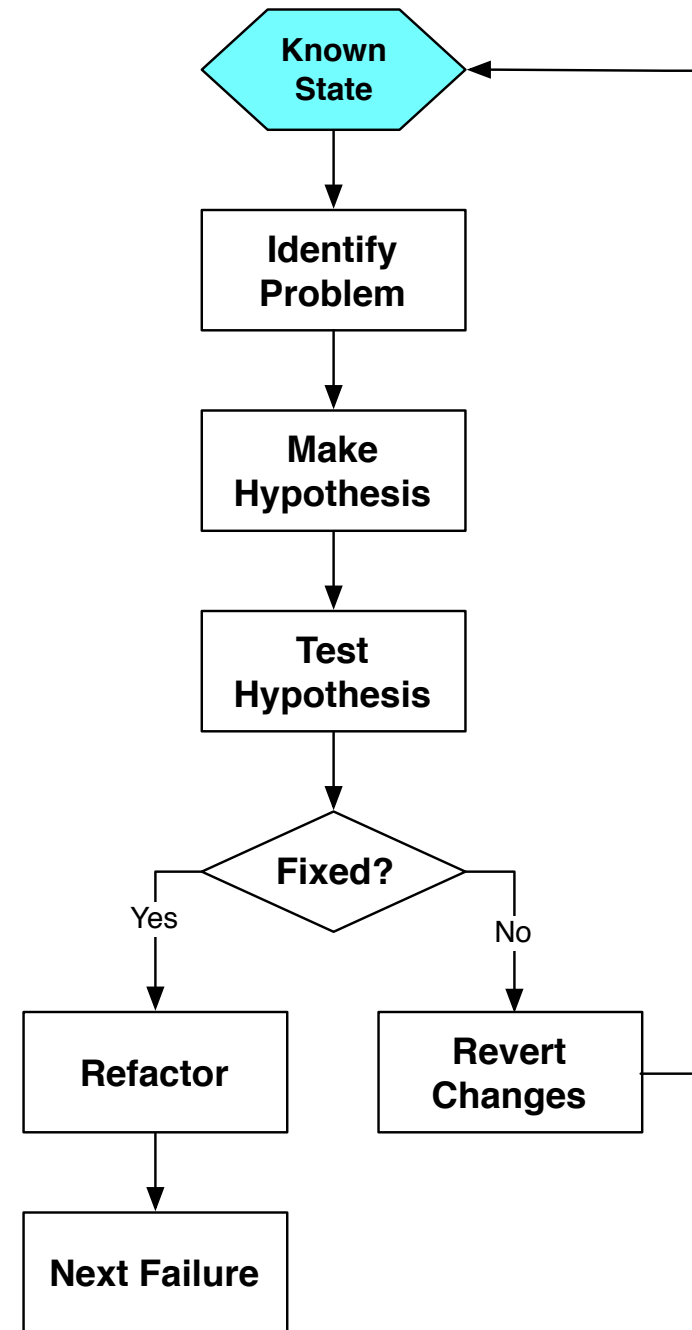
Step 6a: Next Failure

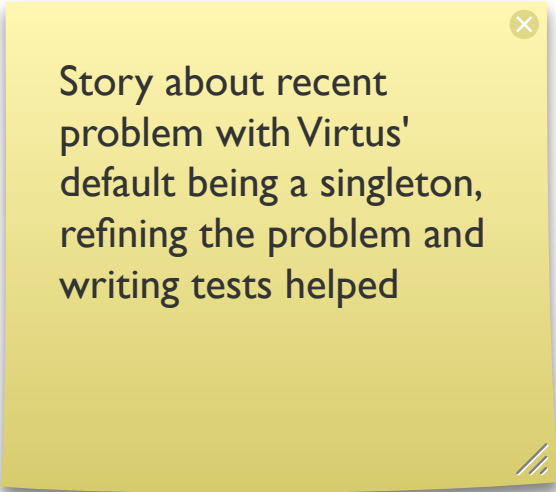


Step 5b: Revert Changes



Step 6b: Try Again





Story about recent problem with Virtus' default being a singleton, refining the problem and writing tests helped

Refine The Problem

Tools & Methods

Software

git bisect



Test this

```
$ git bisect start
```

```
$ git bisect bad HEAD
```

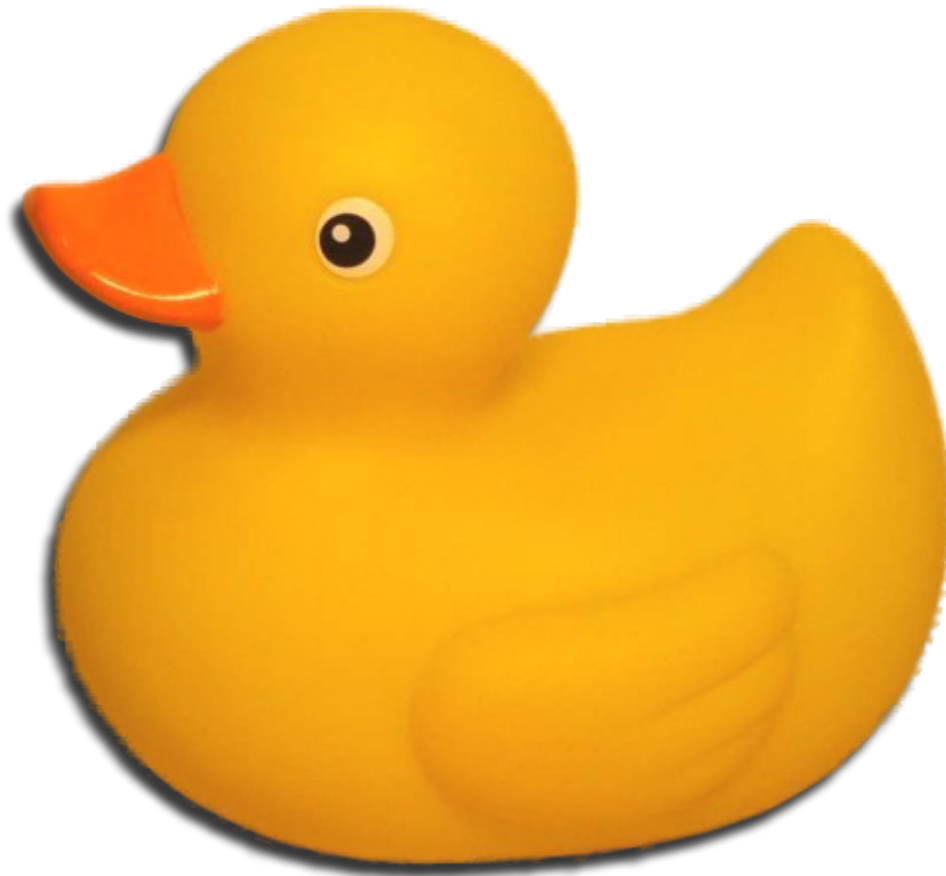
```
$ git bisect good c17ce7f
```

Bisecting: 8 revisions left to
test after this

```
$ git bisect run rake test
```


People

Rubber Ducking



http://commons.wikimedia.org/wiki/File:Plastik_ördek.png

Ask For Help

Internet

Documentation

Issues & Bugs

Mailing Lists

Stack Overflow

Cognitive

Time Limit

Do Something Else



http://upload.wikimedia.org/wikipedia/commons/c/c8/Autumn_mountain_trail.jpg

**But it's not my
fault...**

Submit A Bug

Basic Bug



http://www.flickr.com/photos/malcolm_nq/8190984555

What I Did:

What happened:

What I expected:

Notes:

Polite Bug



<http://www.flickr.com/photos/rbochet/7226107202>

No Generalizations

Concise

Objective

Great Bug



Minimal Repro Steps

Related Cases

A Failing Test

Provide A Patch

Feature Request



Hits The Fan

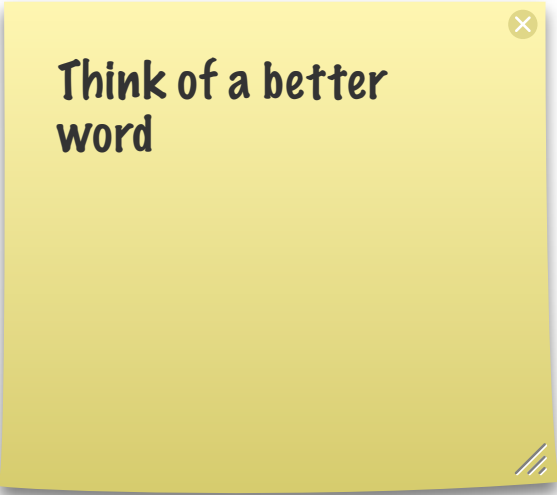
Sup & Yuck Cartoon if
there's time



<http://www.flickr.com/photos/sporkwrapper/2083117299>

**Don't
Panic!**

Recognize The *Real* Problem



Think of a better
word

Consensus

Multiple Problems?

tri•age

noun

the process of determining the most important people or things from amongst a large number that require attention.

verb [*with obj.*]

assign degrees of urgency to (wounded or ill patients).

Stop The Bleeding

Rollback

Workaround

Feature Switch

Manual Hackery

Fix The Issue

Resources

Write A Test

Scientific Debugging

Two Pairs

Expectations

Improving Estimates

Communicate Often

In Writing

In Public

Predictably

Re-triage

Reflect

Solo

Team

5 Whys

Fact Based

Future Focused



Process

Summary

Debug With Science

**Don't
Panic!**

Communicate

Special Thanks

- Ryan Davis & Pete Higgins
- Ben Bleything & Kären Engelbrecht

Thank You