

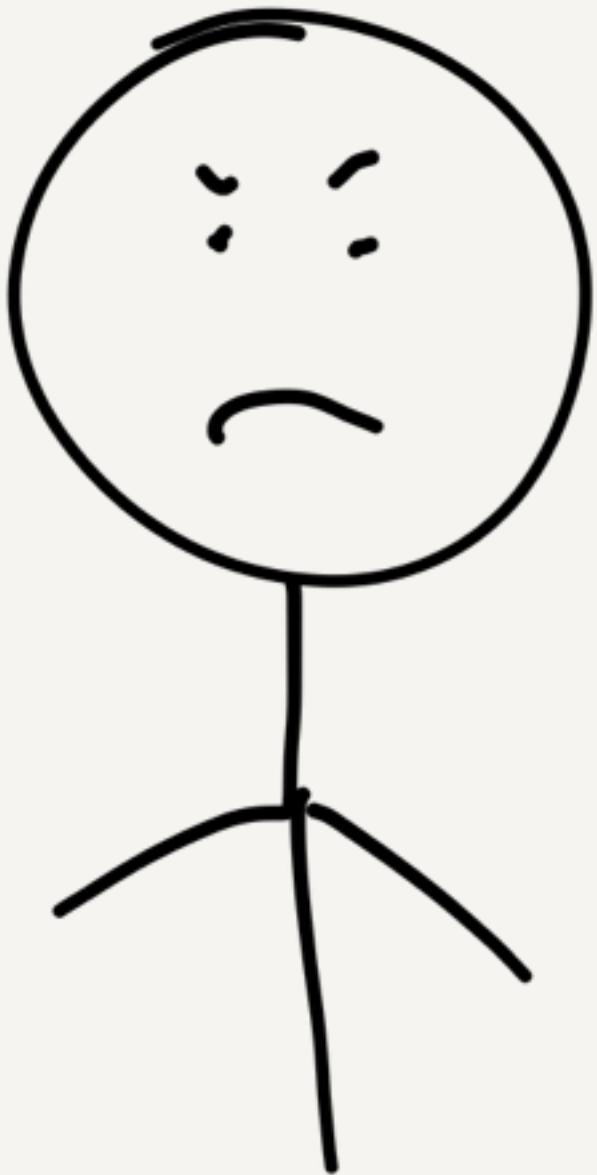
When Test is

Isn't

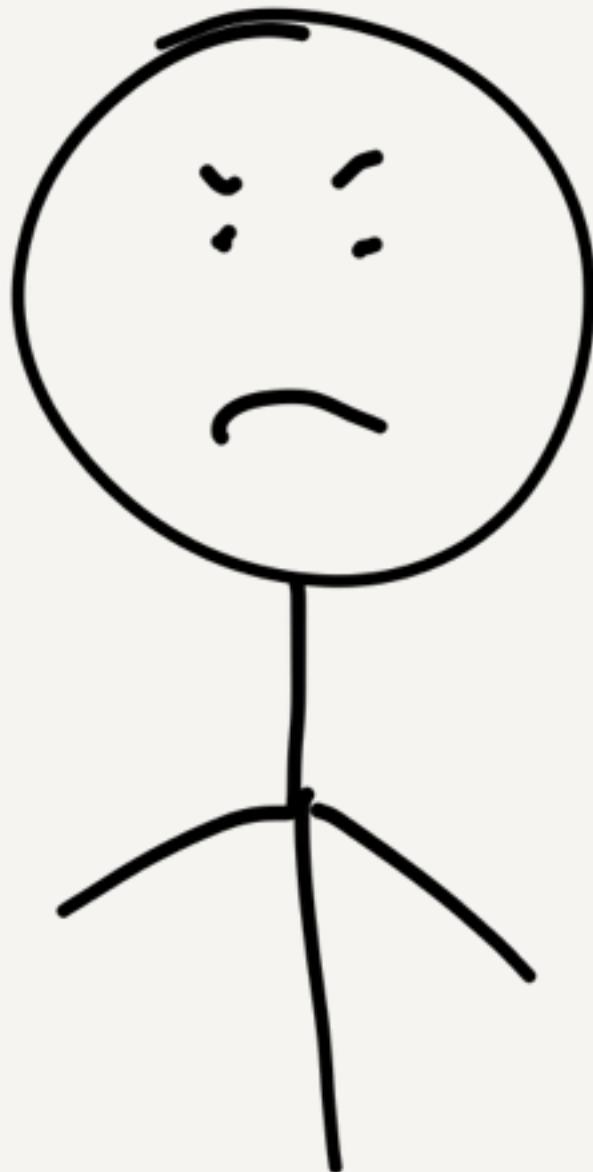
Enough

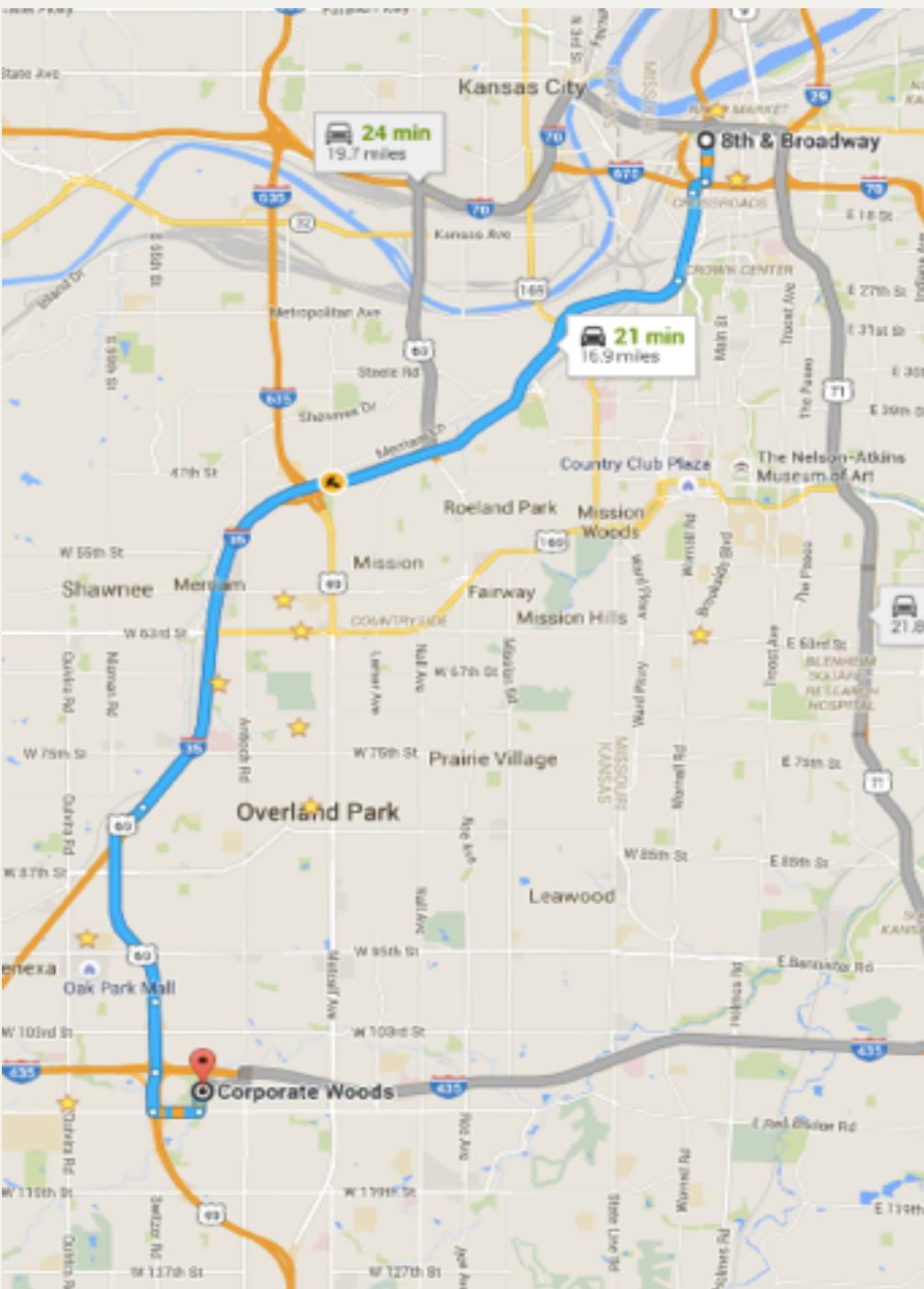
Darren  
Caughon

darrenCaughon@A



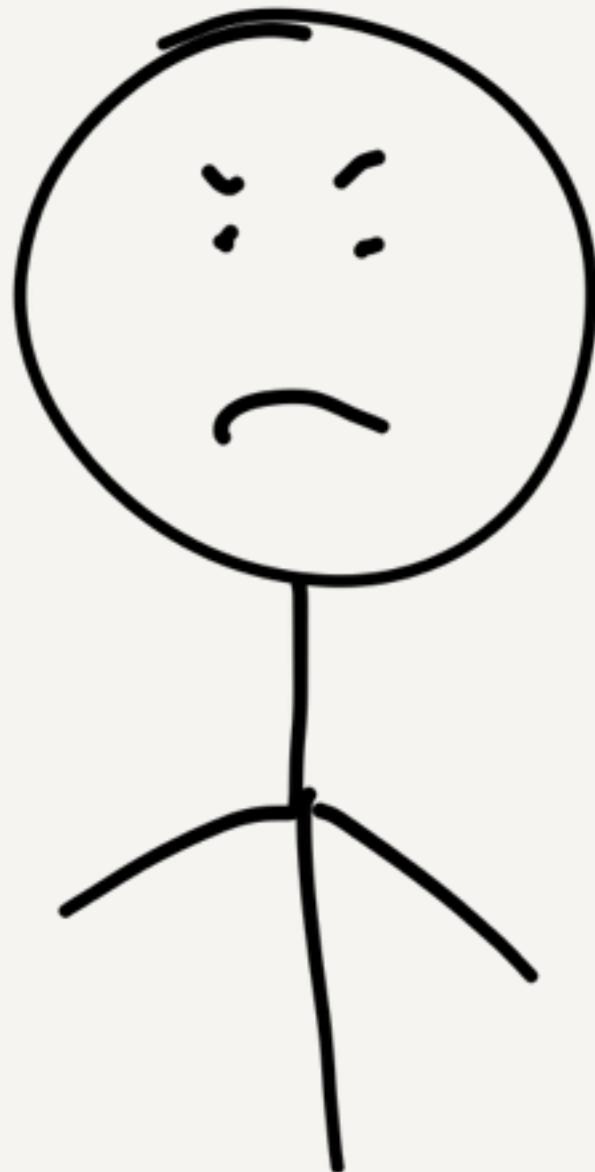
Your  
app is  
busted

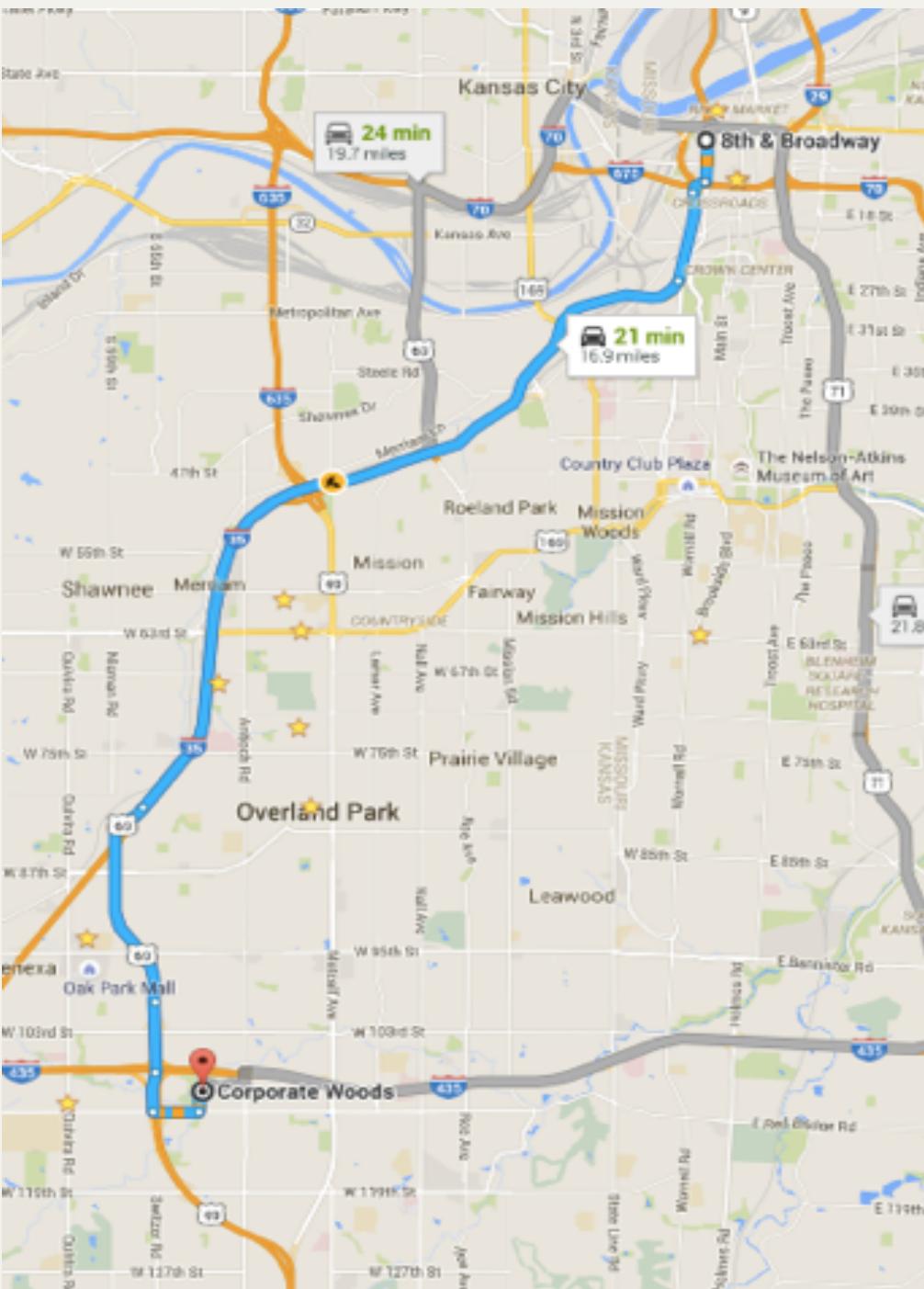




Next  
Day . . .

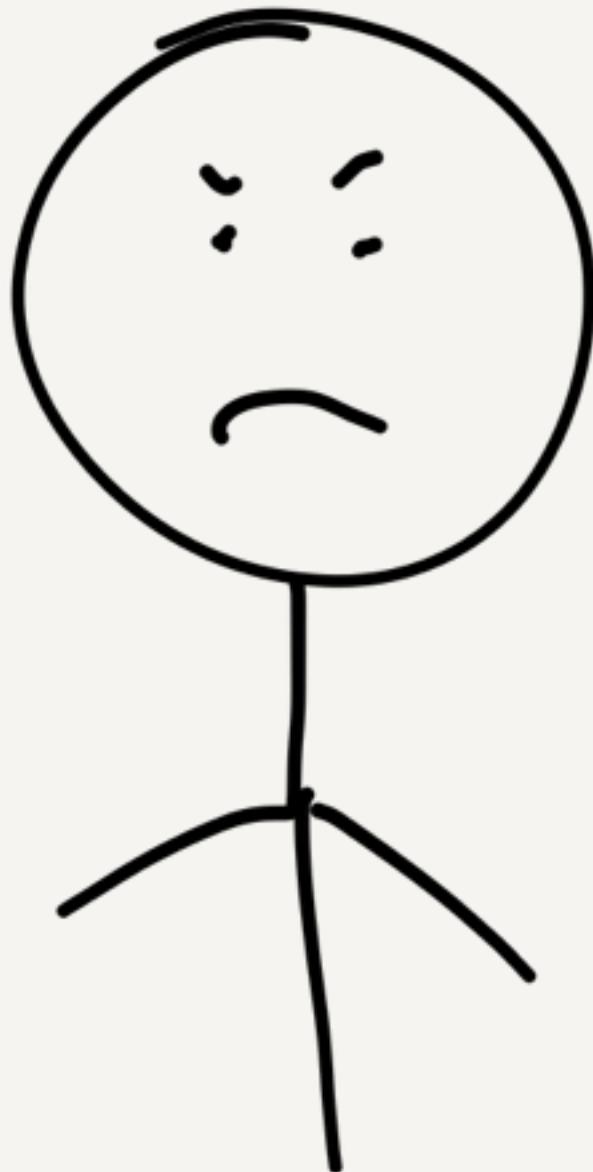
Your  
app is  
busted

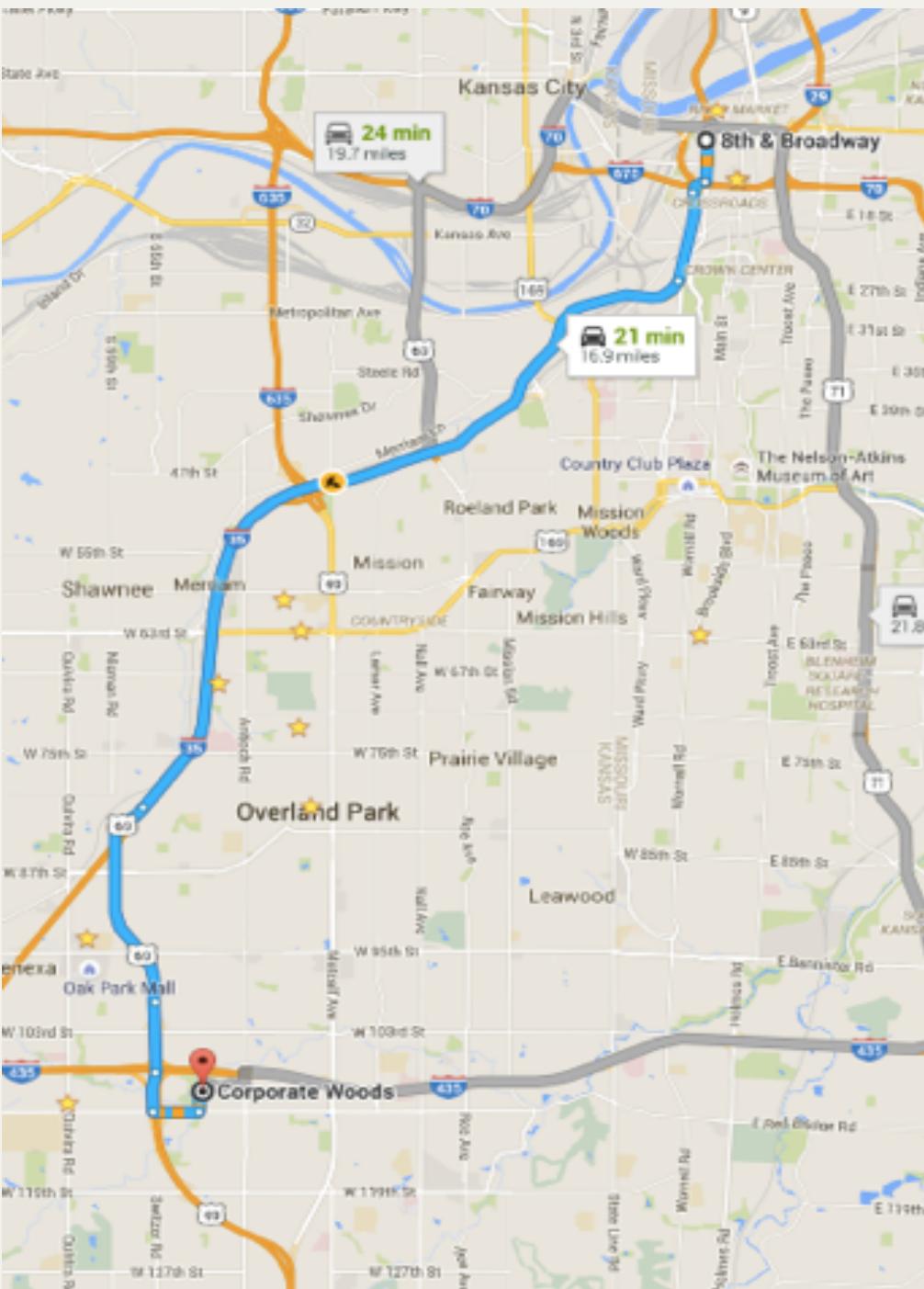




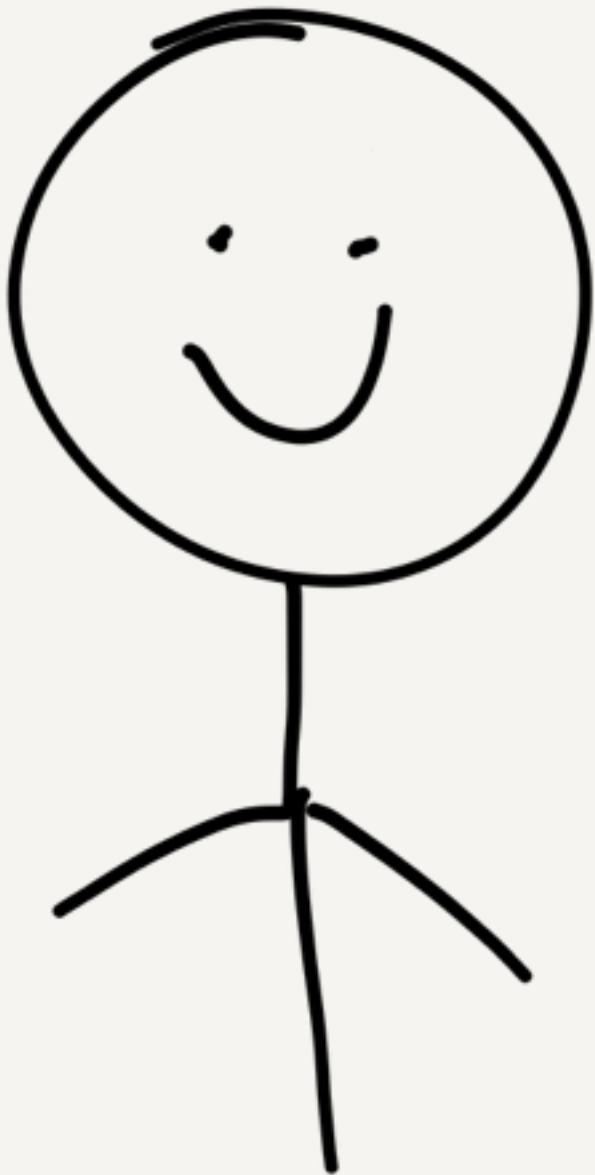
Next  
Day . . .

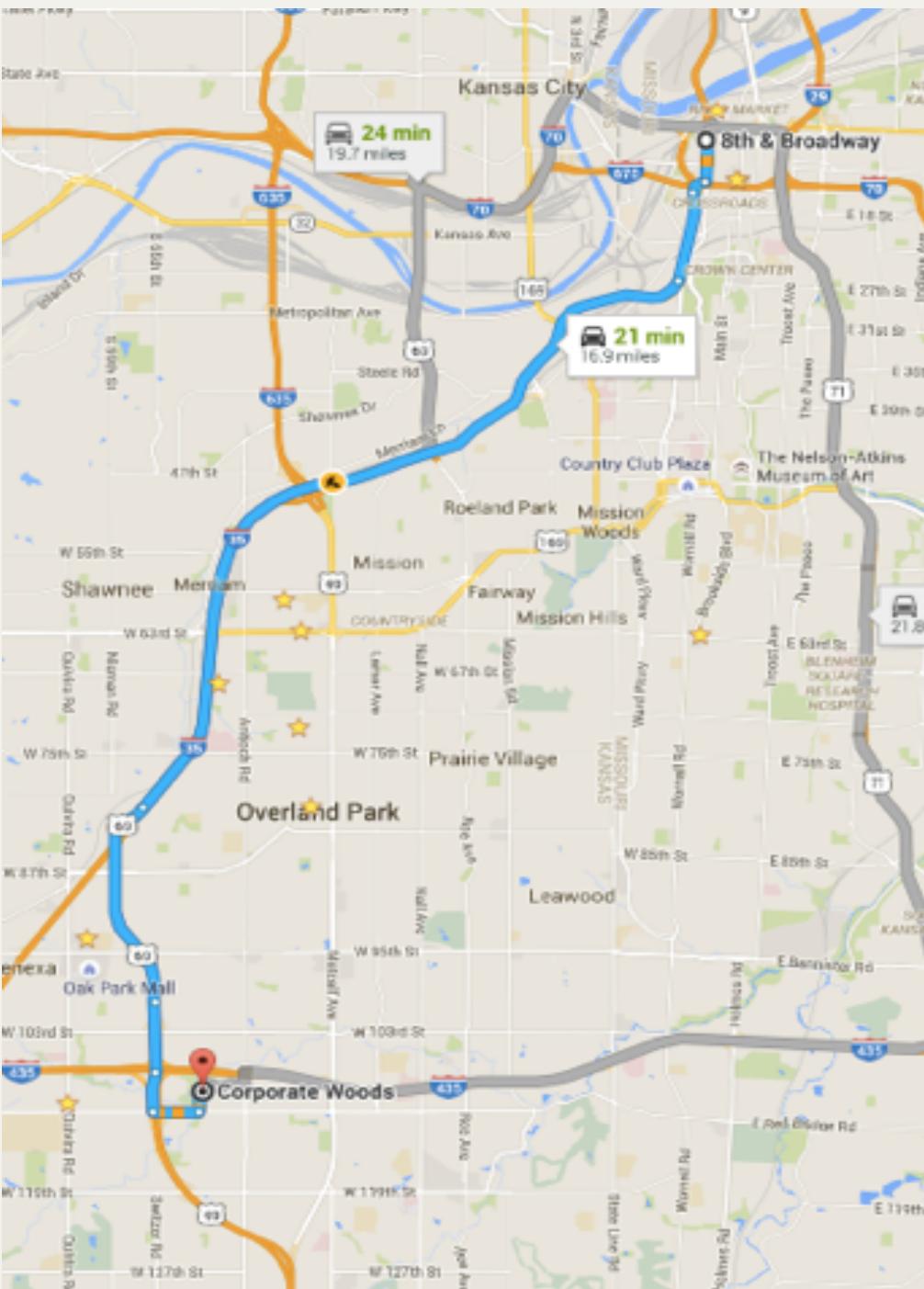
Your  
app is  
busted



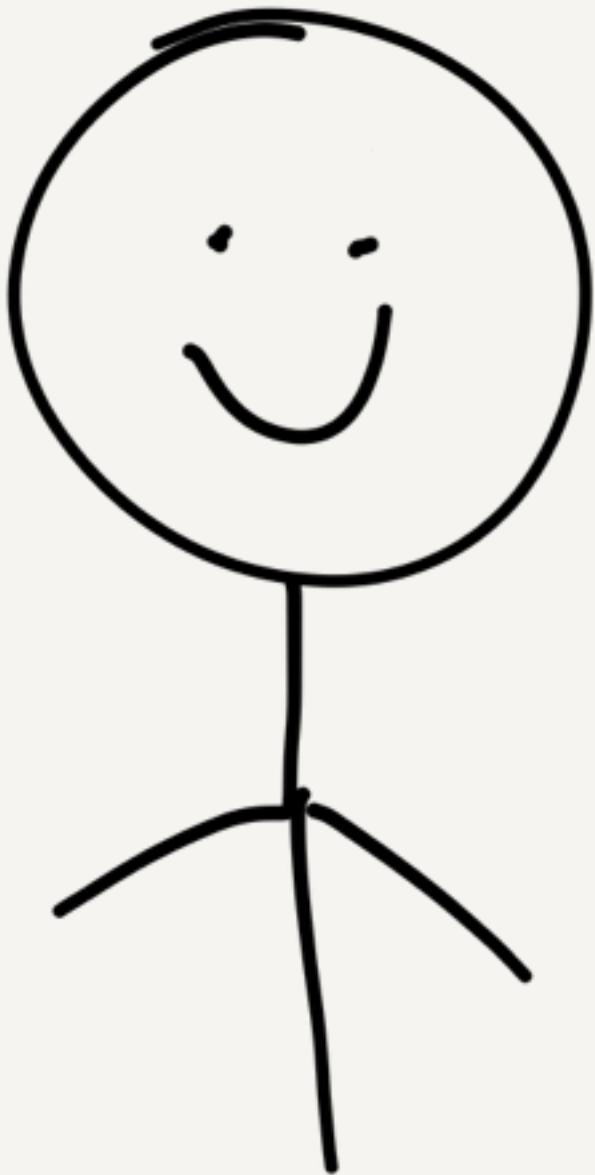


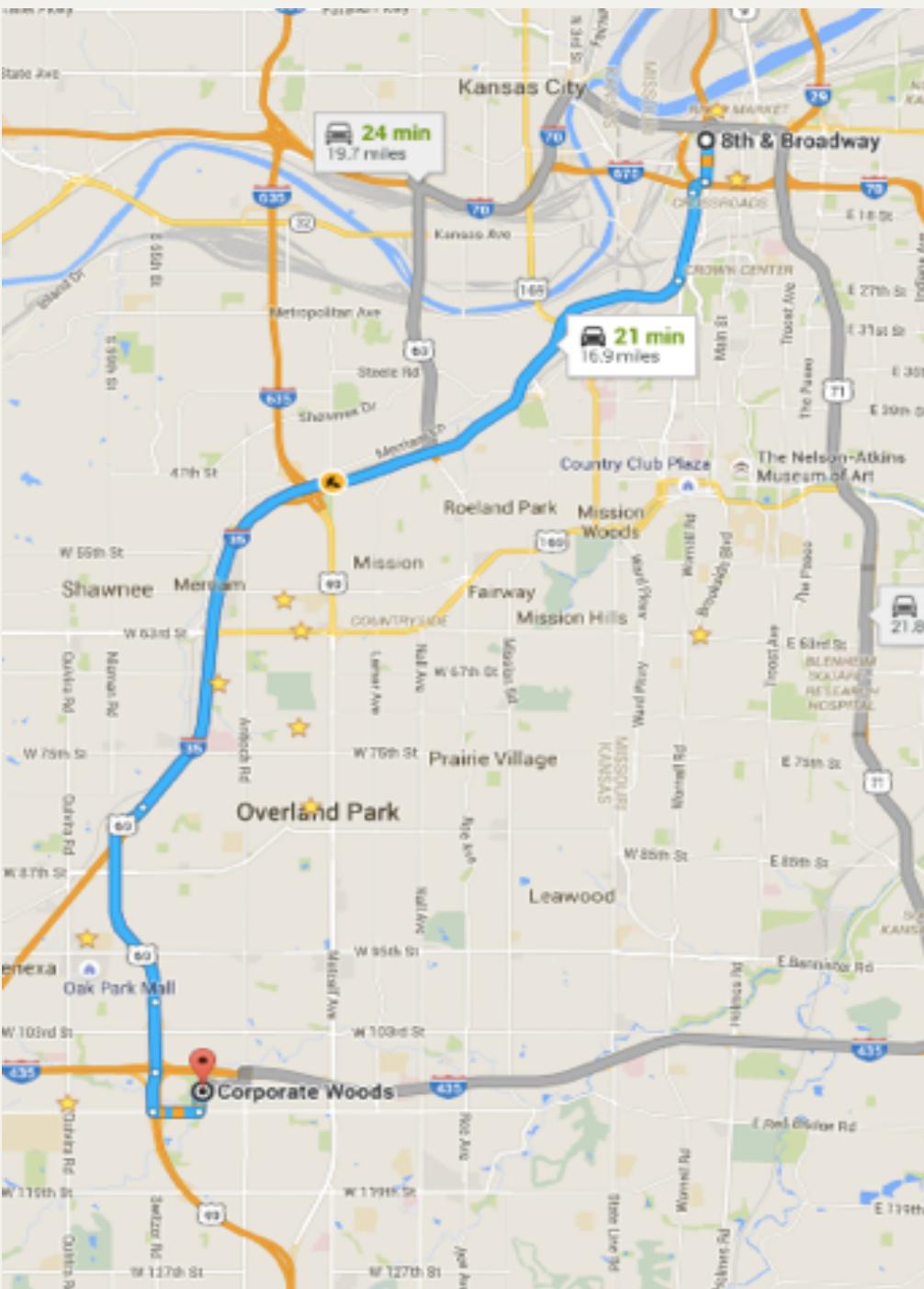
Next  
Day . . .





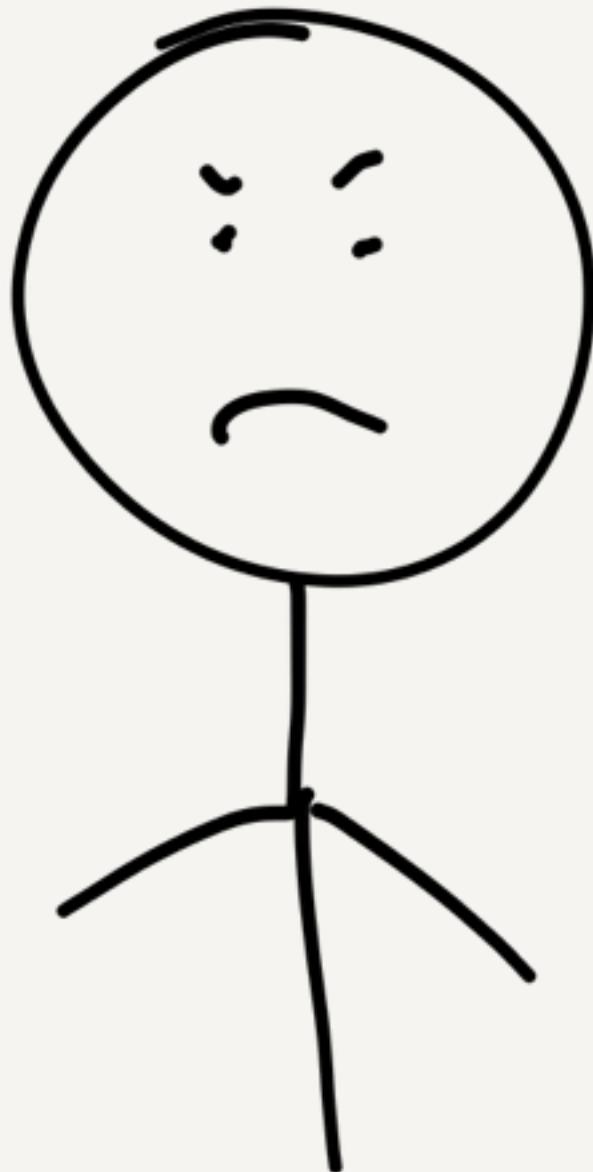
Next  
Day . . .

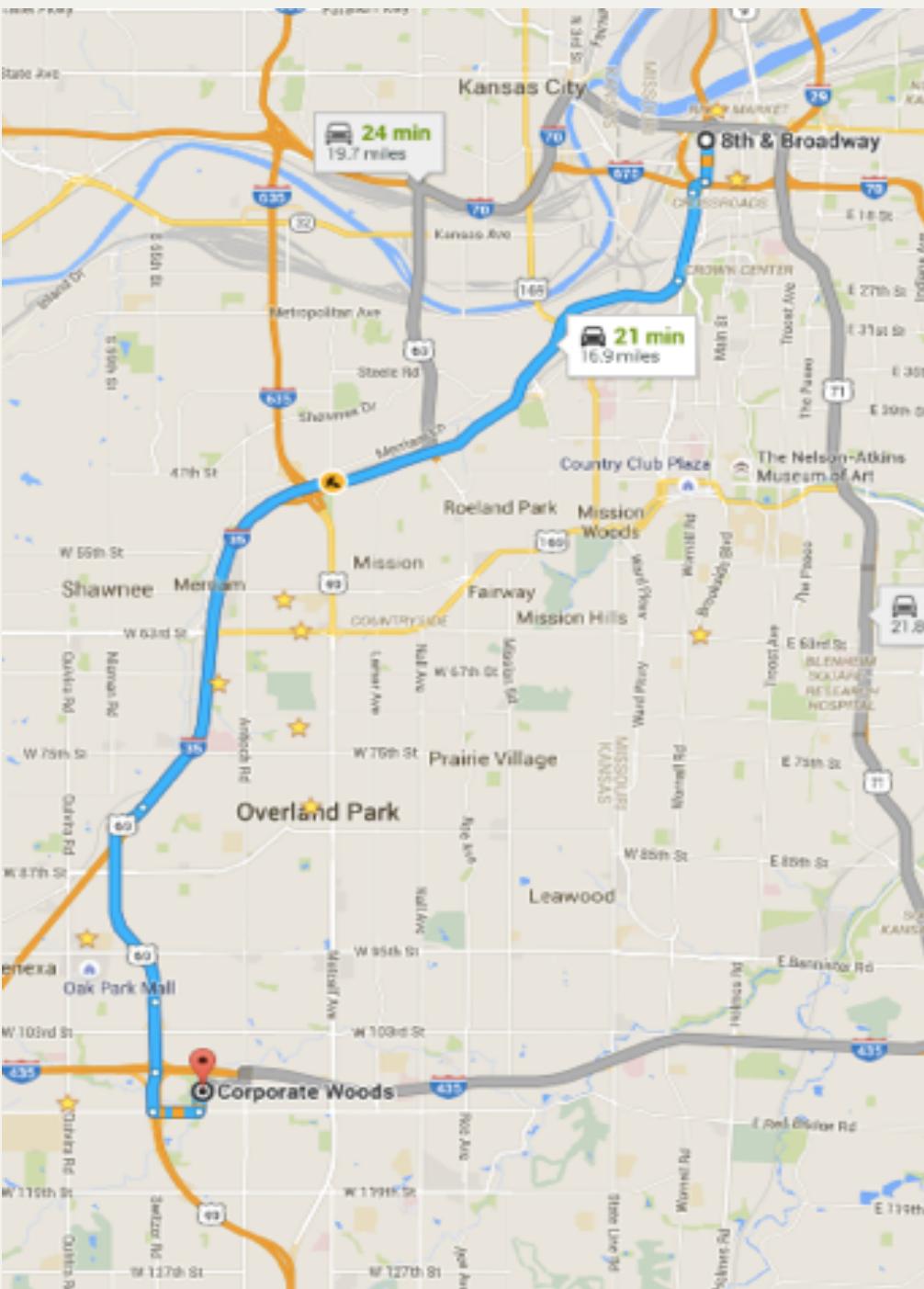




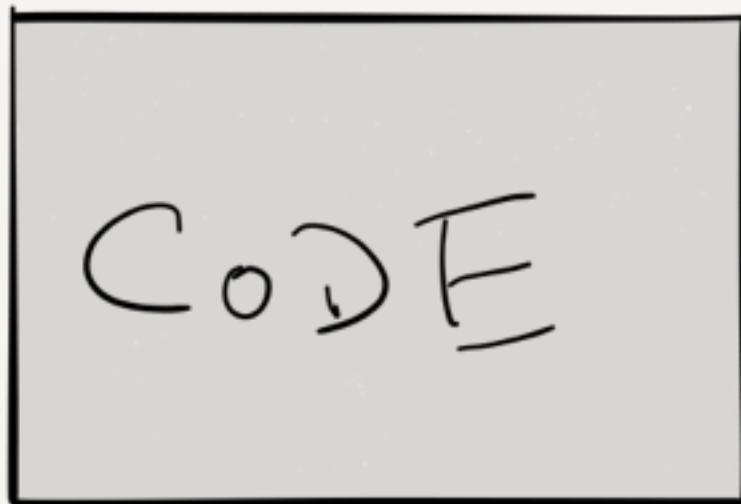
Next  
Day . . .

Your  
app is  
busted

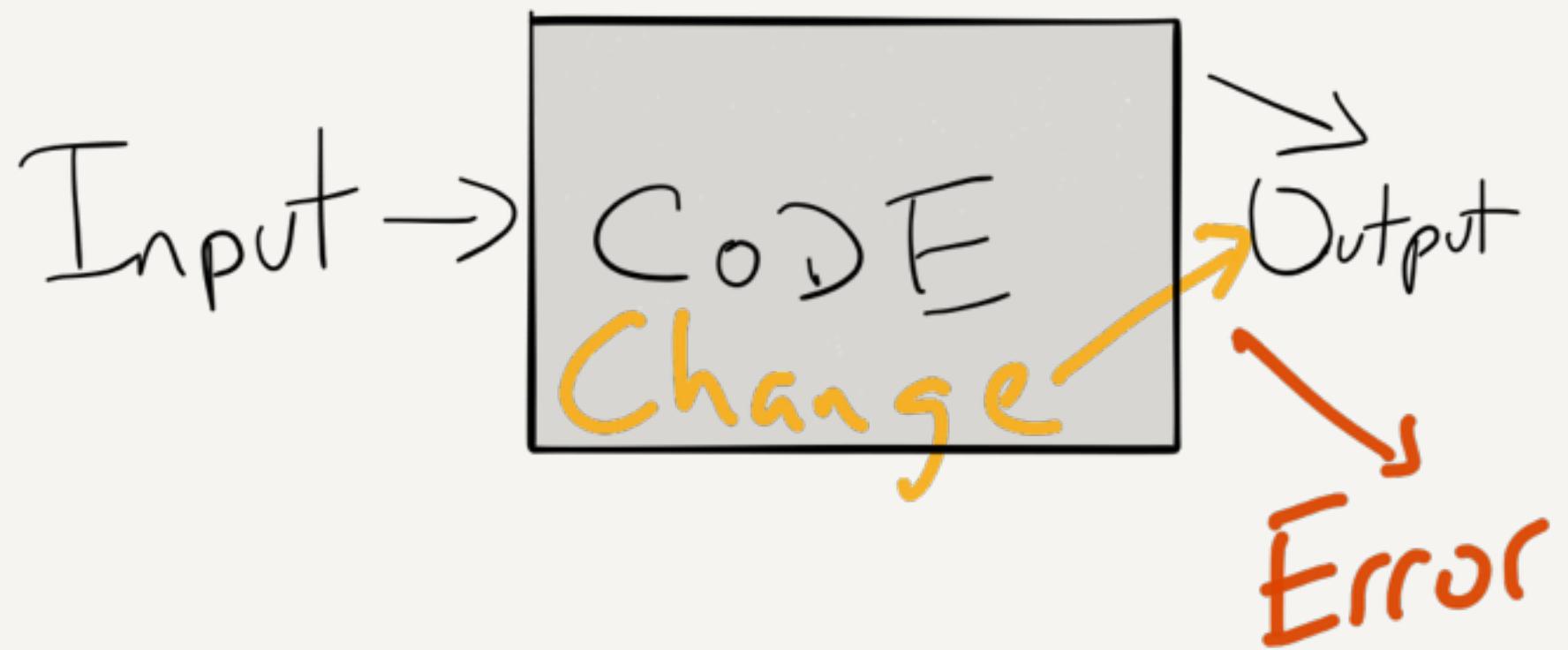


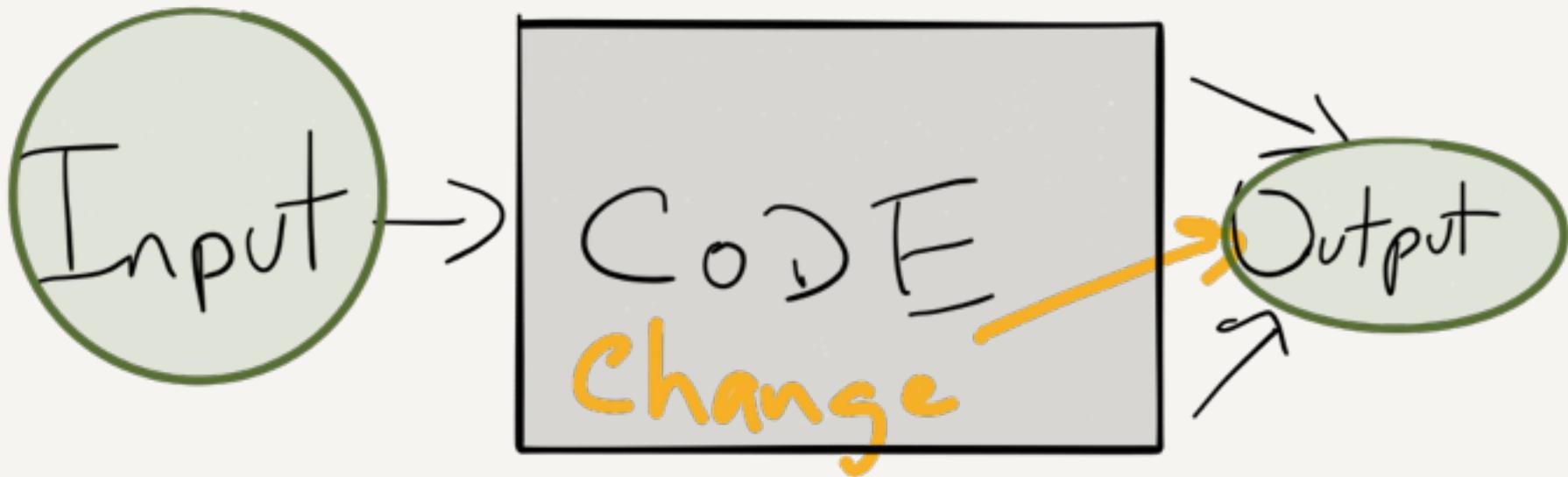


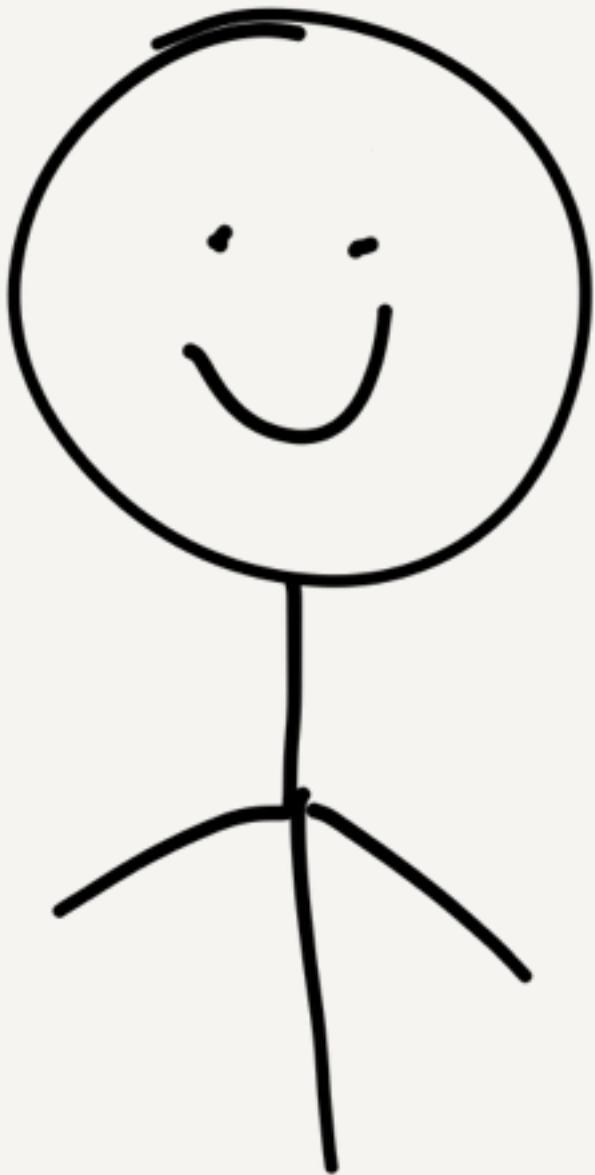
Input →

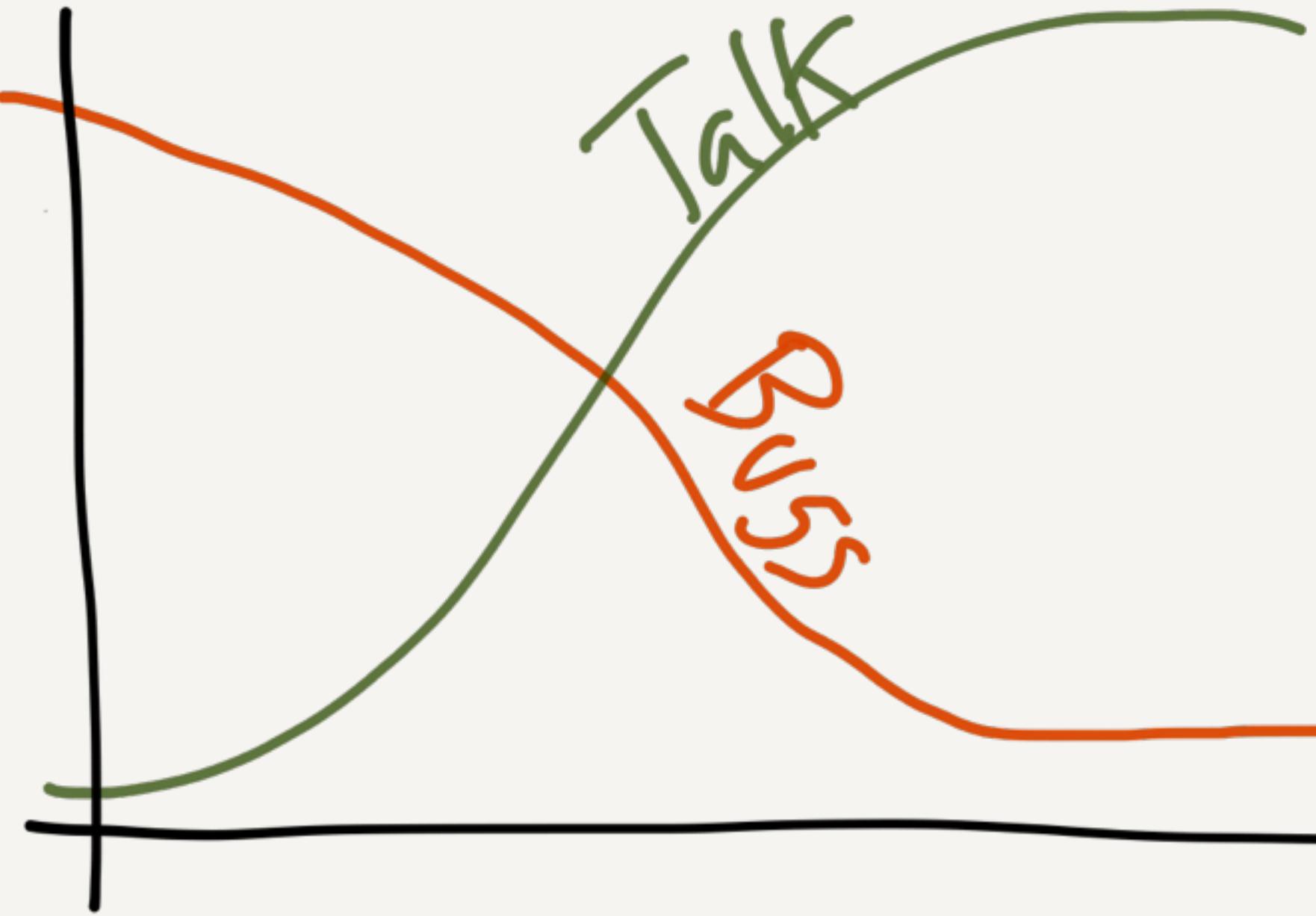


Output

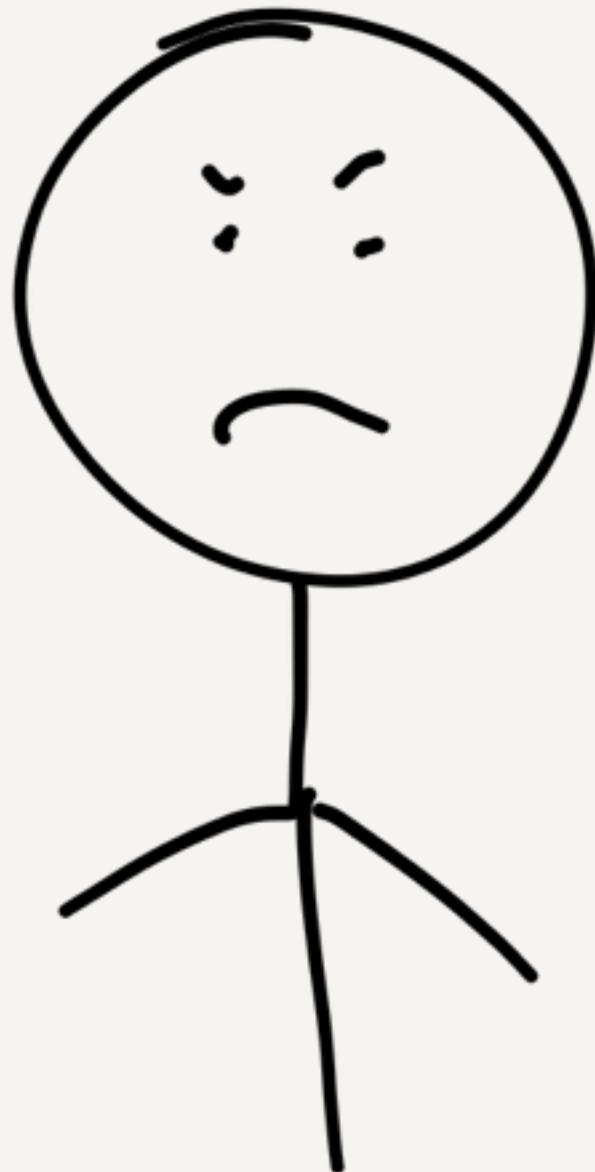








Your  
app is  
busted

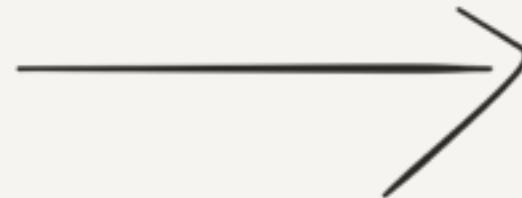
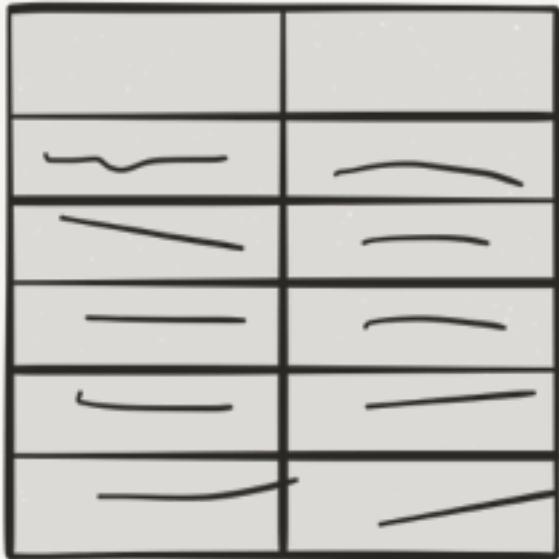


- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Report +

(1)

Errors

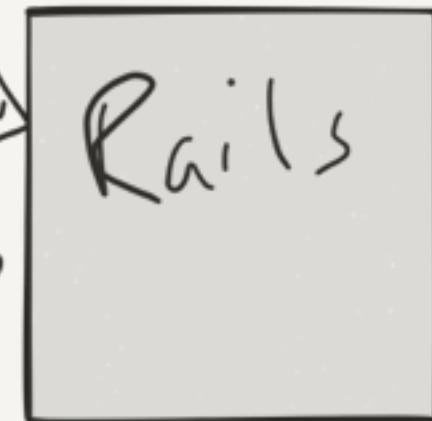
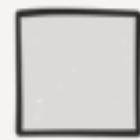


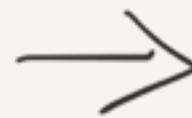
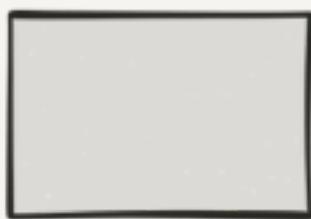
Rails

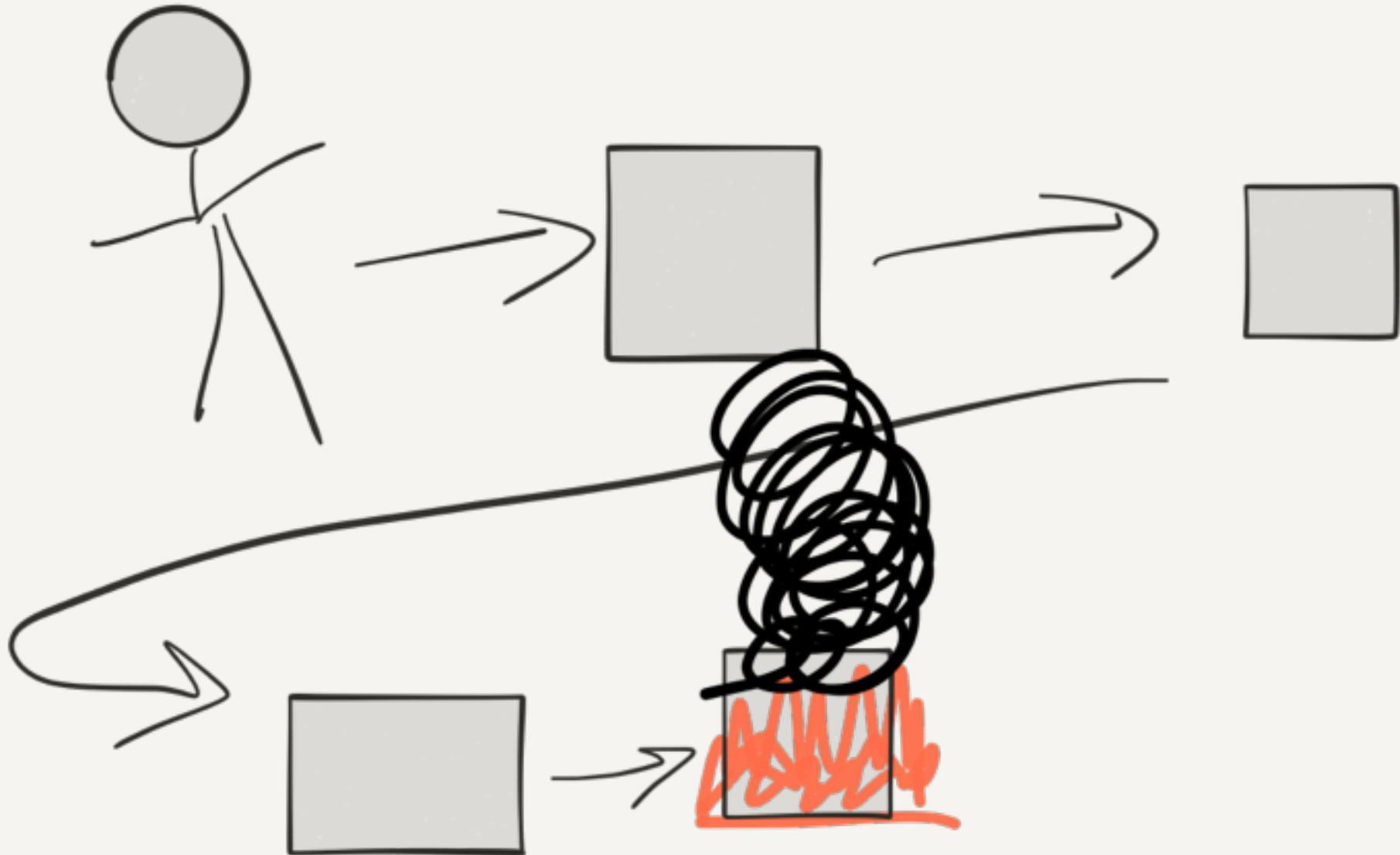


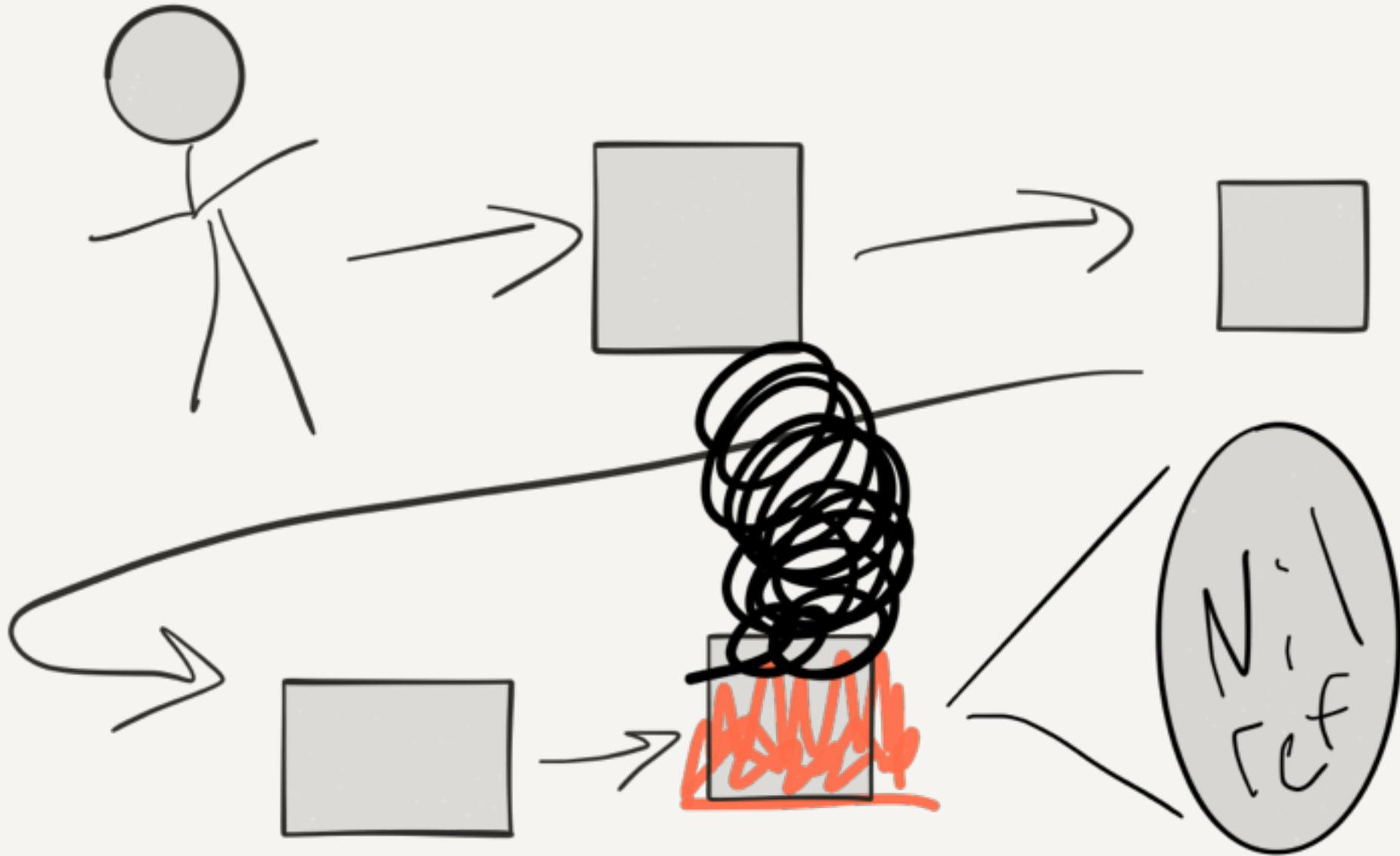
Postcards



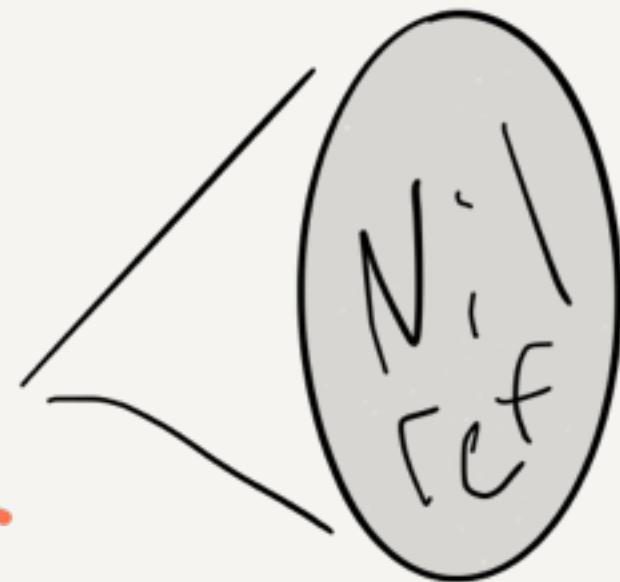
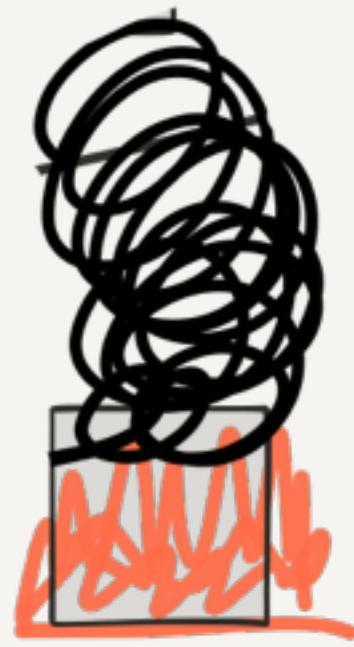






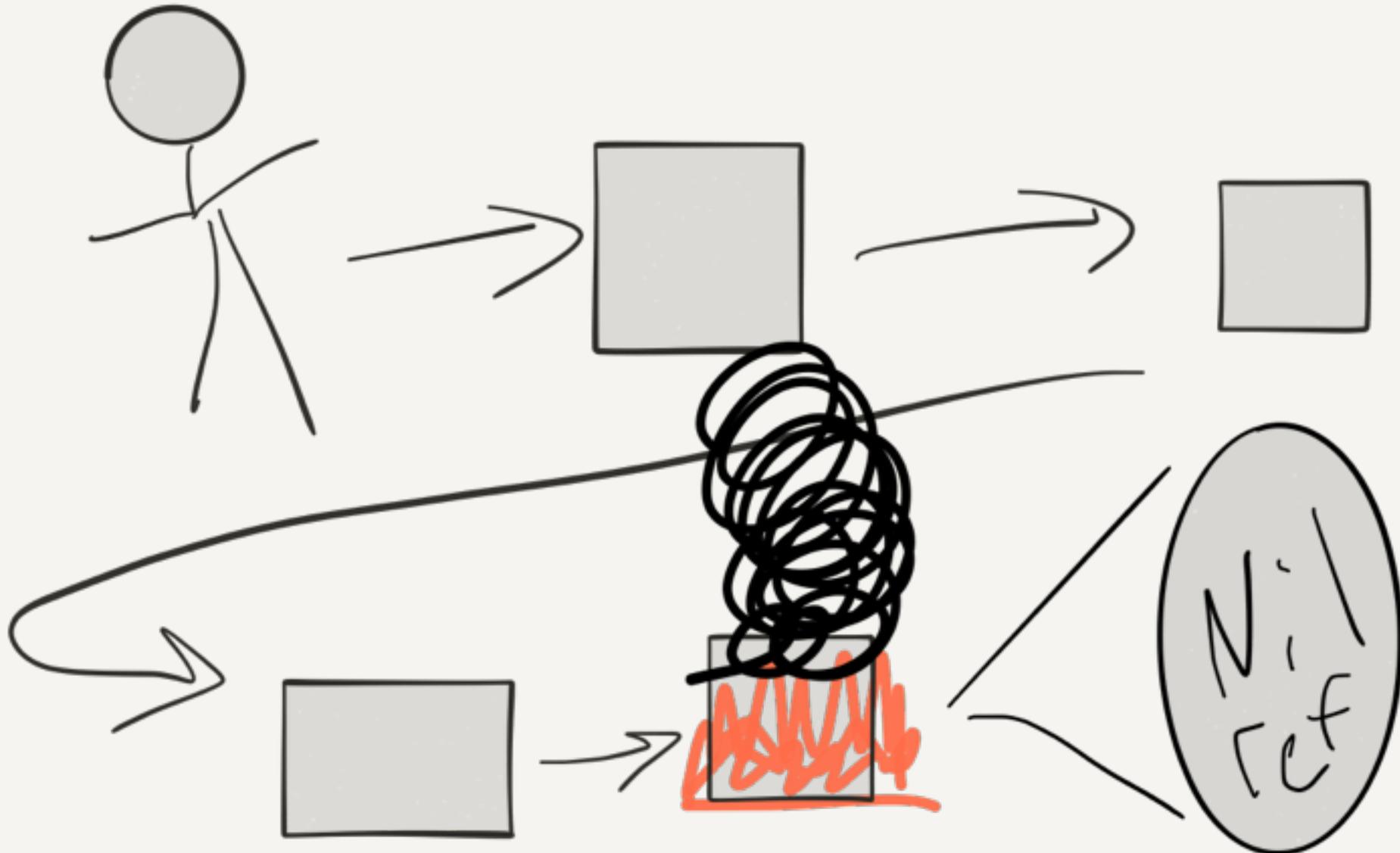


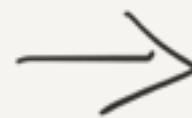
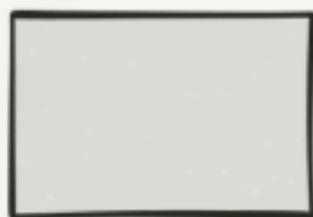
2 weeks

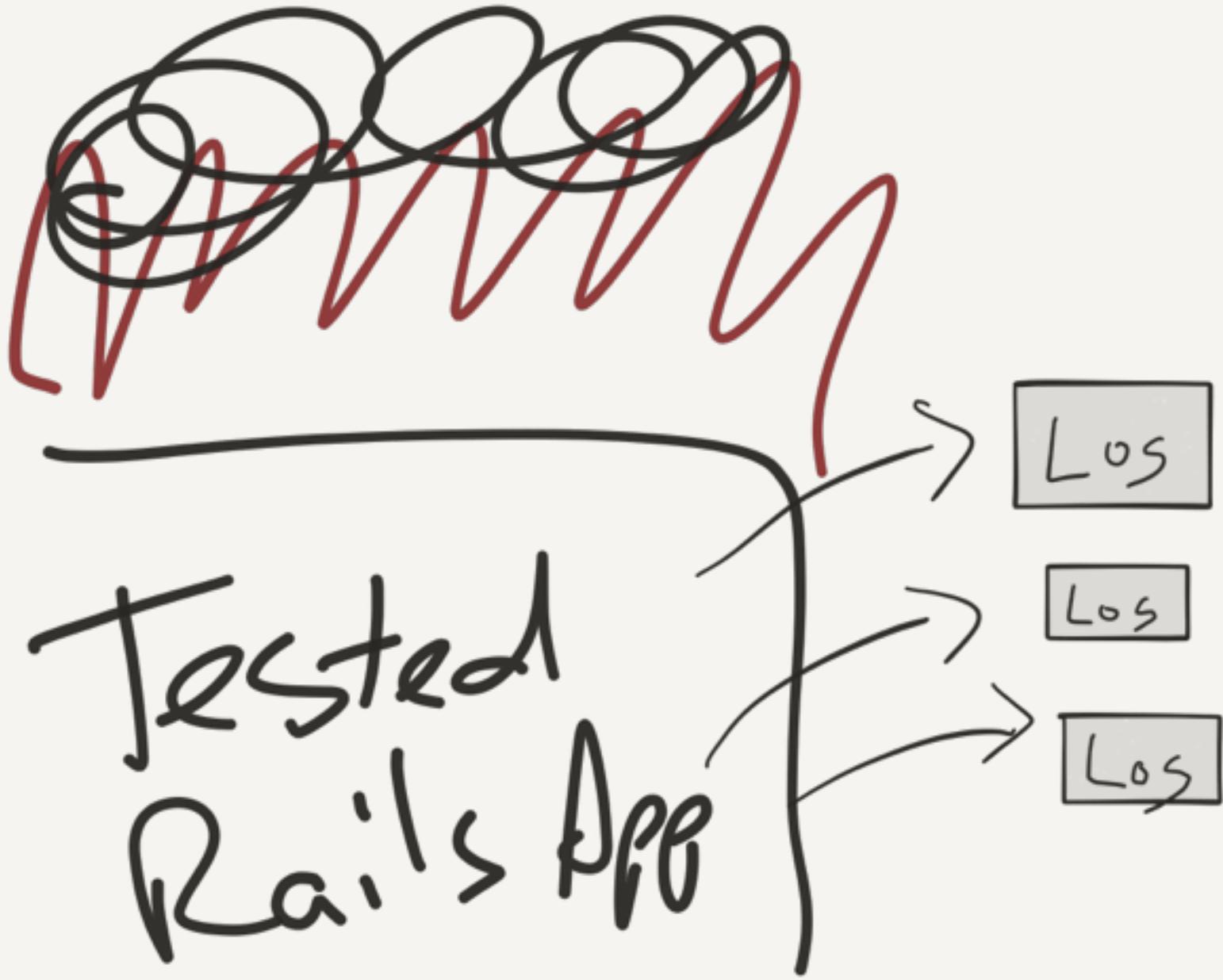


What  
error?









Los

Los

Los



Los

Los

Los

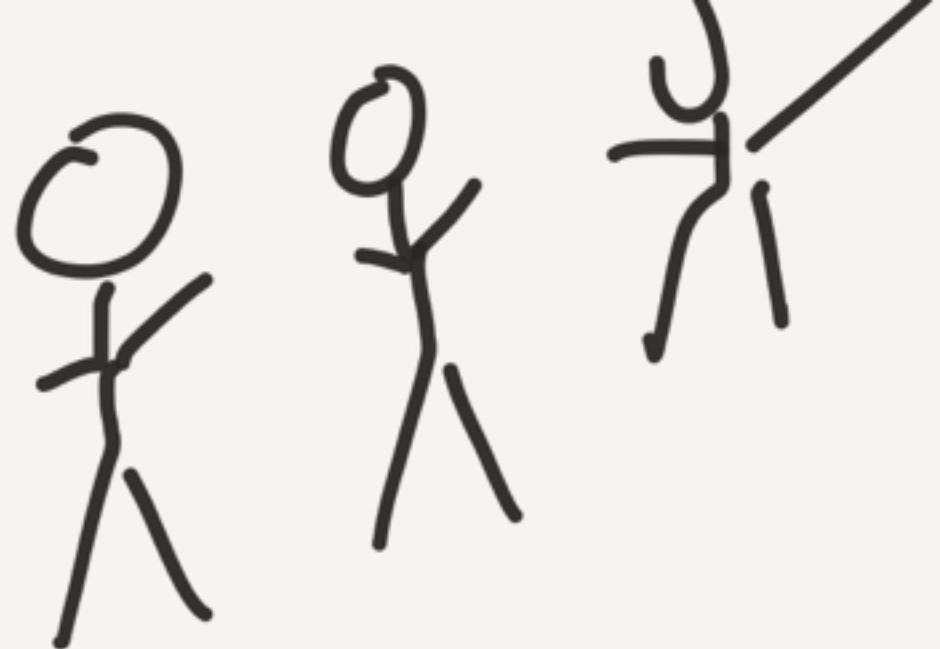
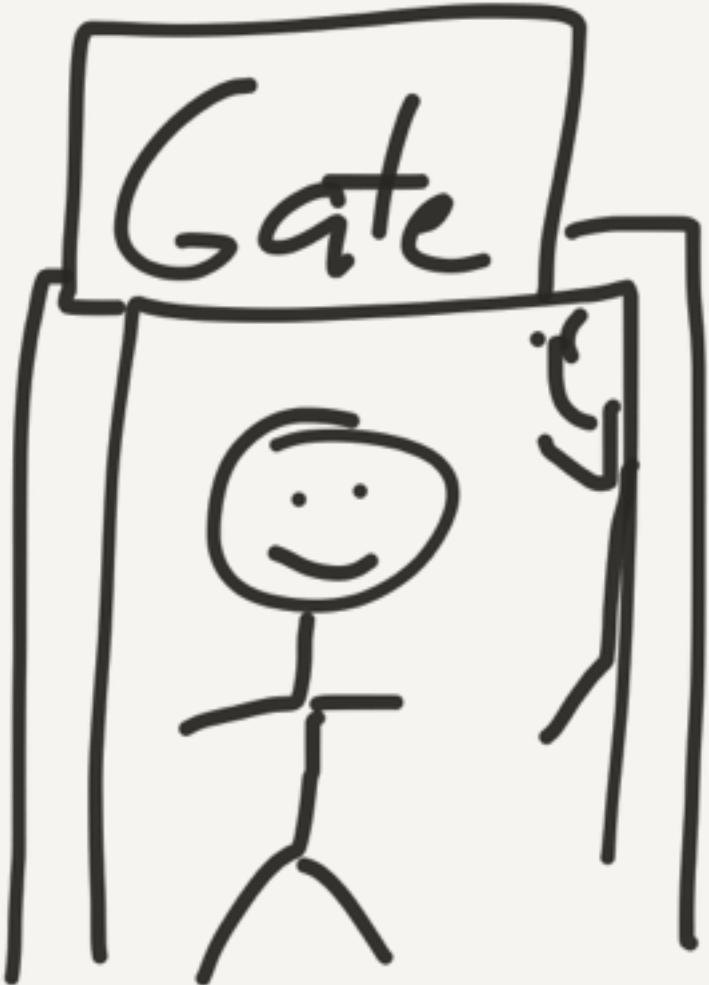


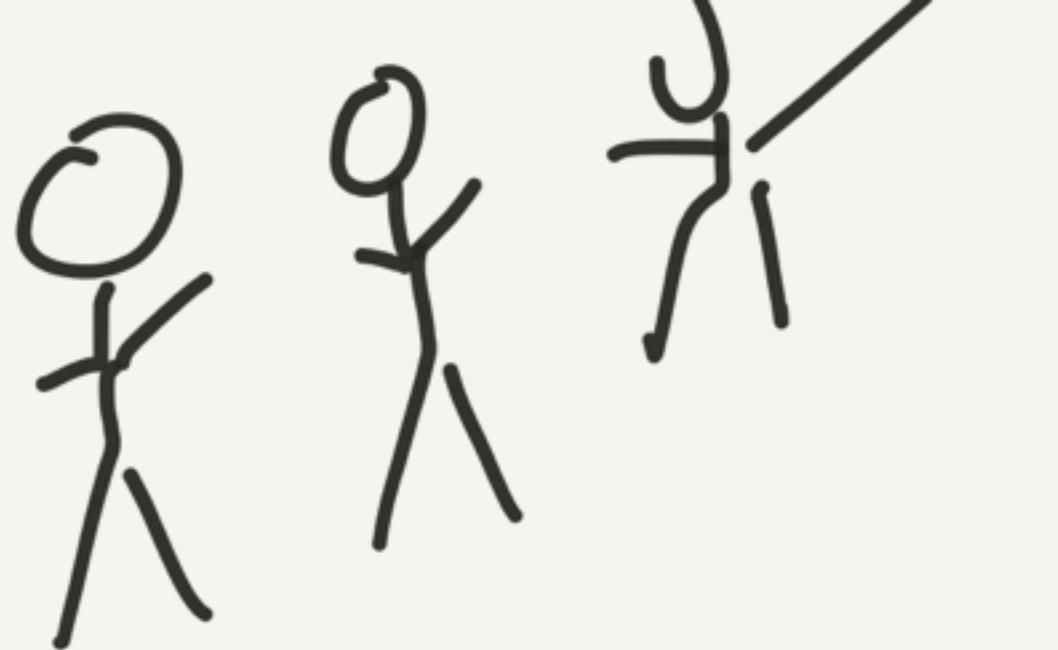
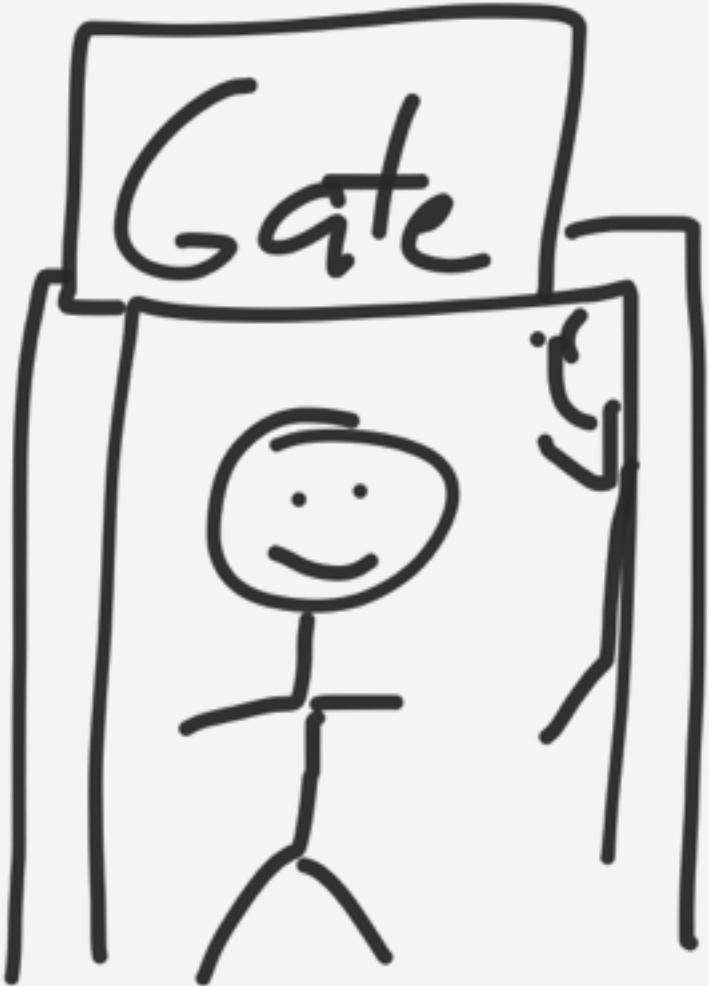
- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Process



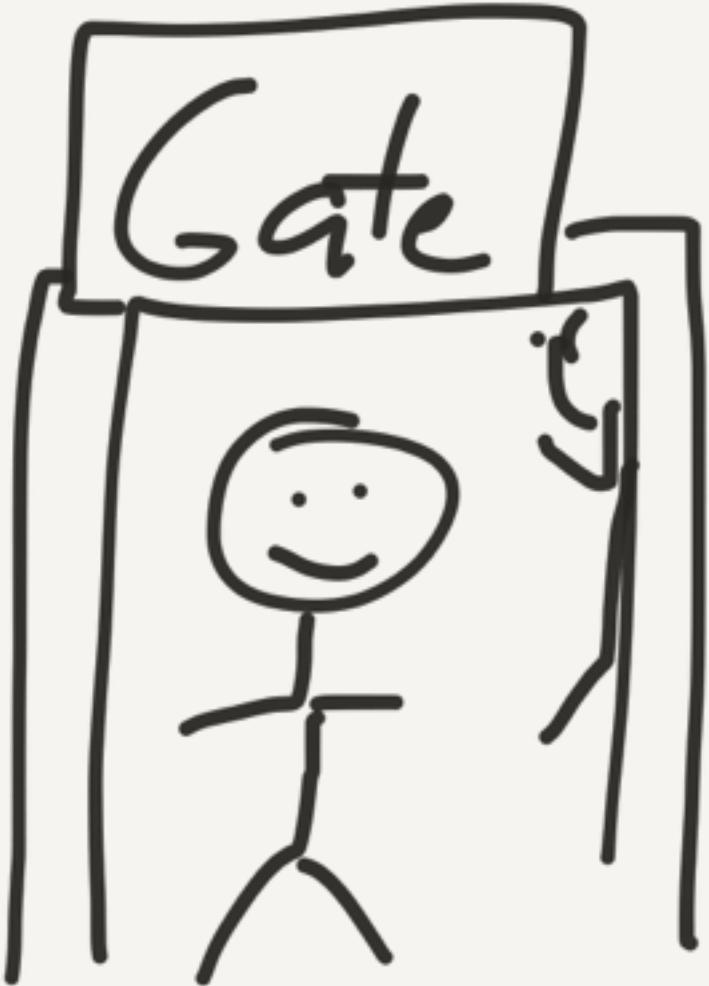
Errors





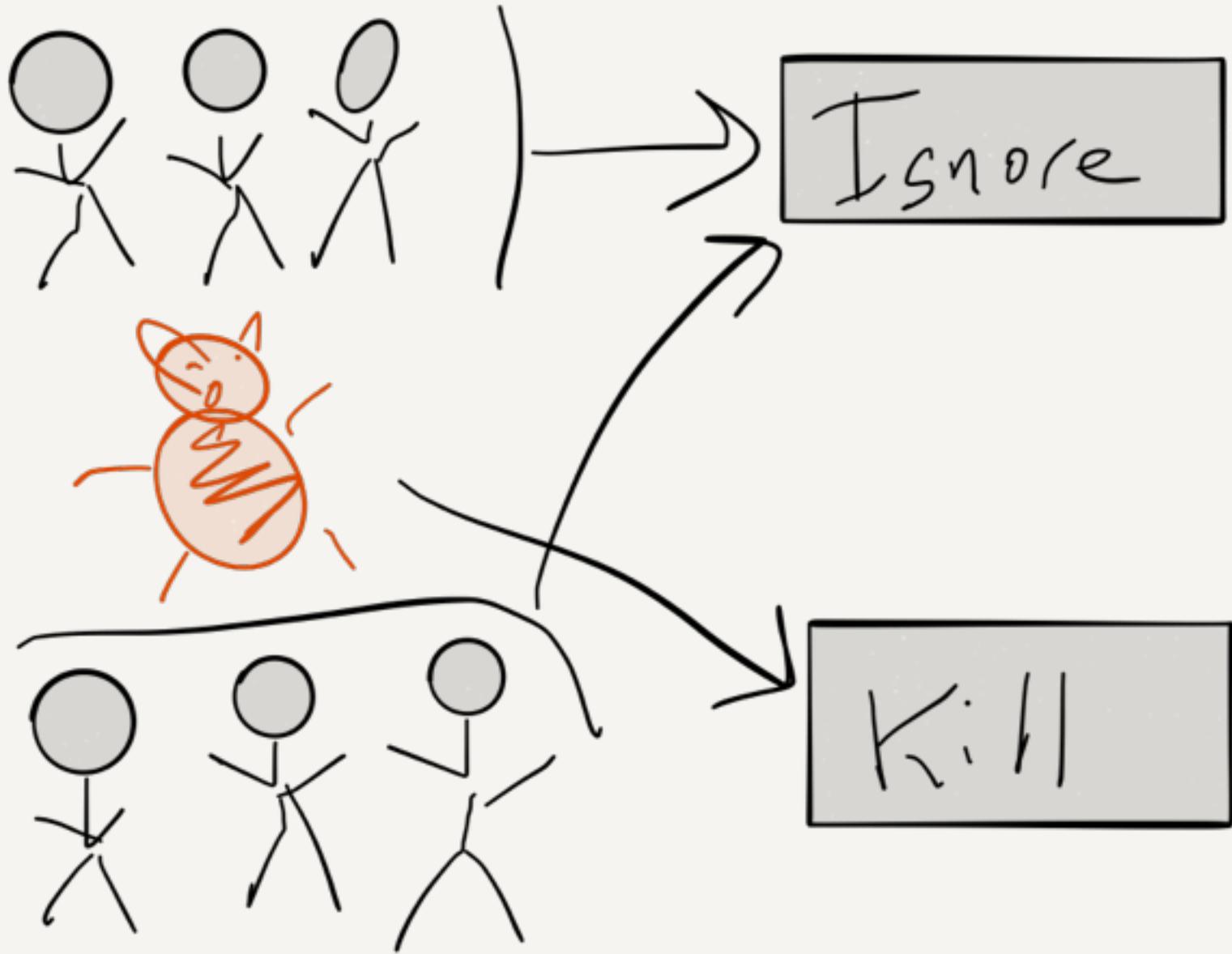
z z z





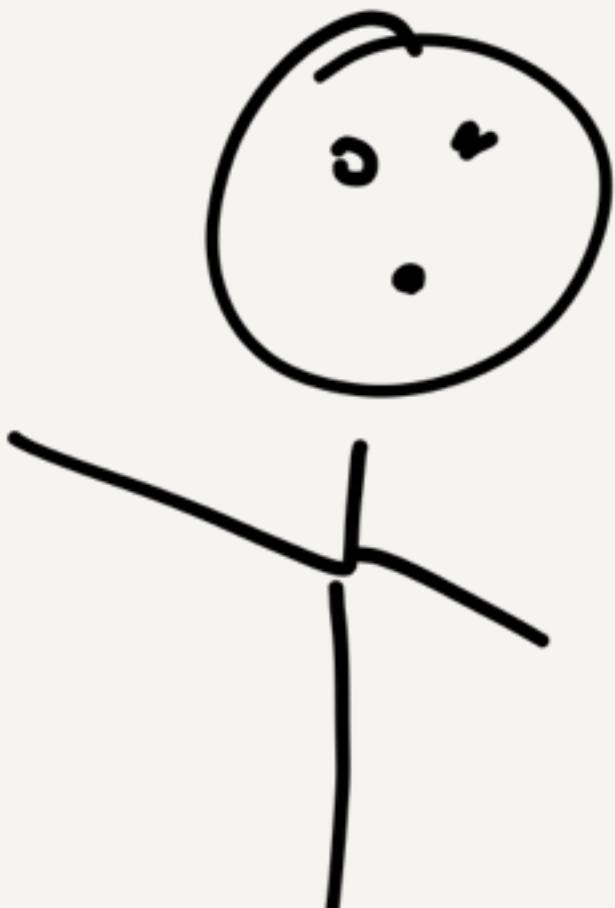
z z z





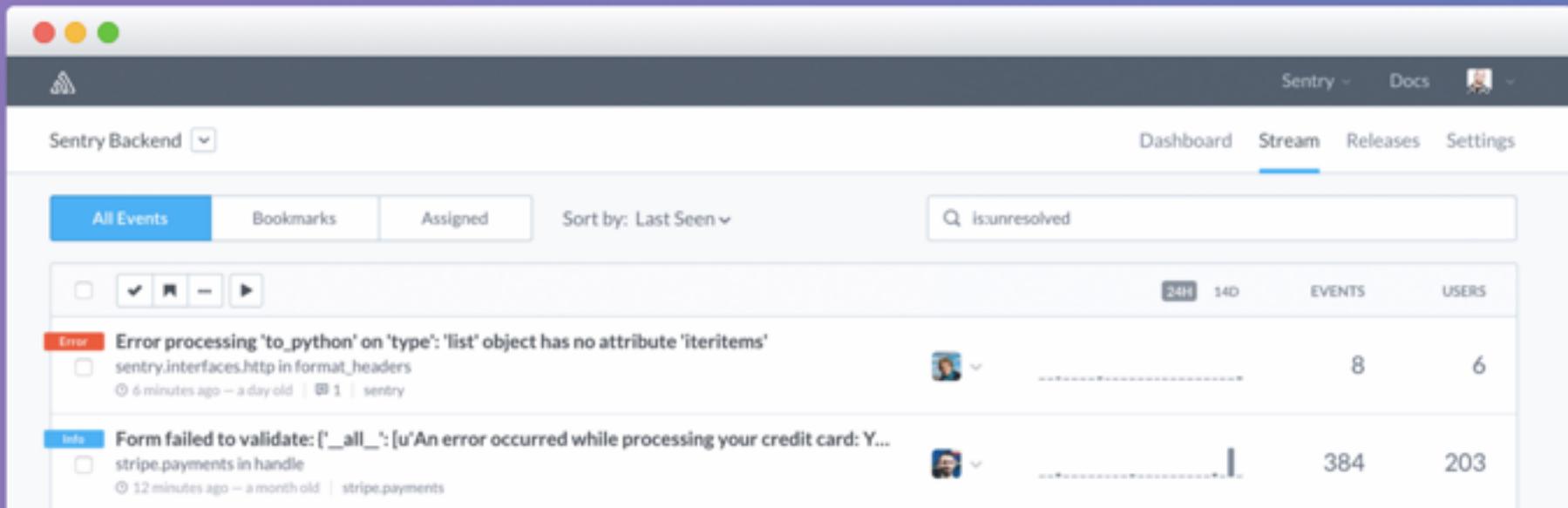


STOP!



# The web's check engine light.

Sentry provides real-time crash reporting for your web apps, mobile apps, and games.

[Try it for free](#)

The screenshot shows the Sentry dashboard interface. At the top, there are navigation links: Sentry, Docs, and Settings. Below that is a search bar with the query "is:unresolved". The main area displays two error events:

- Error**: Error processing 'to\_python' on 'type': 'list' object has no attribute 'iteritems'  
Details: sentry.interfaces.http in format\_headers  
Timestamp: 6 minutes ago – a day old  
Source: sentry
- Info**: Form failed to validate: ['\_\_all\_\_']: [u'An error occurred while processing your credit card: Y...  
Details: stripe.payments in handle  
Timestamp: 12 minutes ago – a month old  
Source: stripe.payments

On the right side of the dashboard, there are summary statistics: 24H, 14D, EVENTS (8), and USERS (6) for the first event, and 384 and 203 for the second event.

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Pins Your  
Apes



Tested  
App

Tested  
App

Engine Yard

AWS

Tested  
App

Engine Yard

AWS

Tested  
App

Engine Yard

DNS

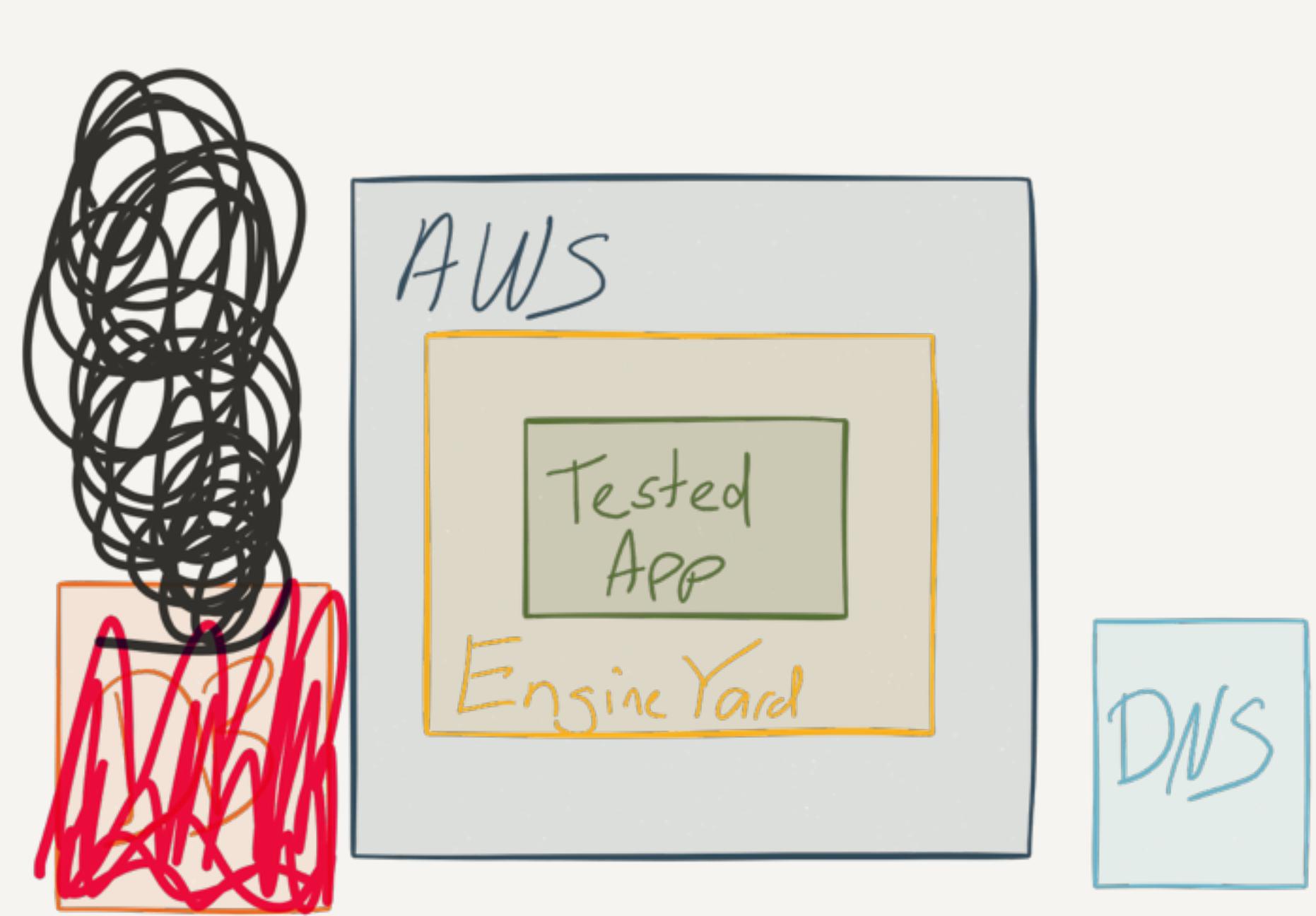
AWS

Tested  
App

Engine Yard

DB

DNS



AWS

Tested  
App

Engine Yard

DNS

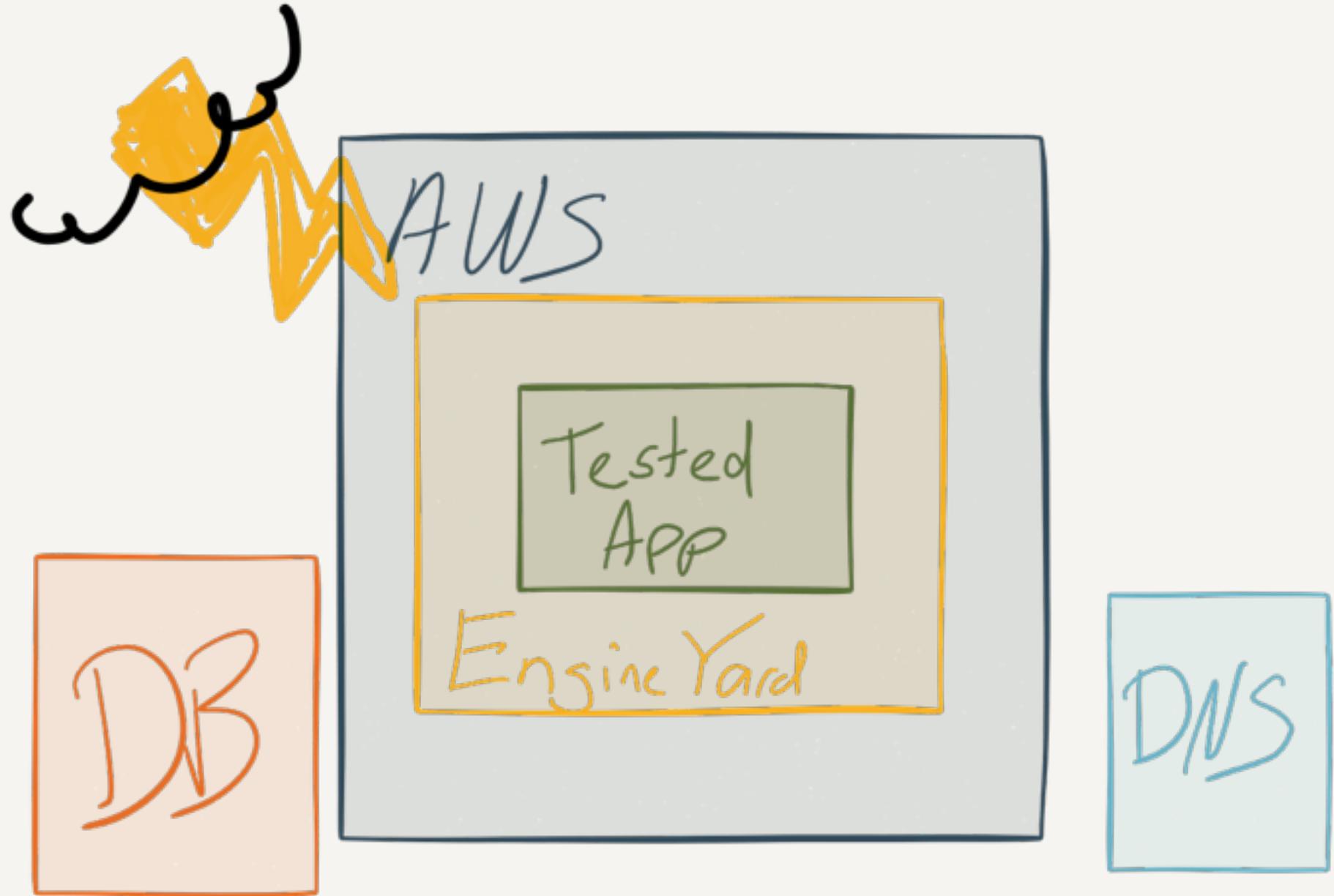
AWS

Tested  
App

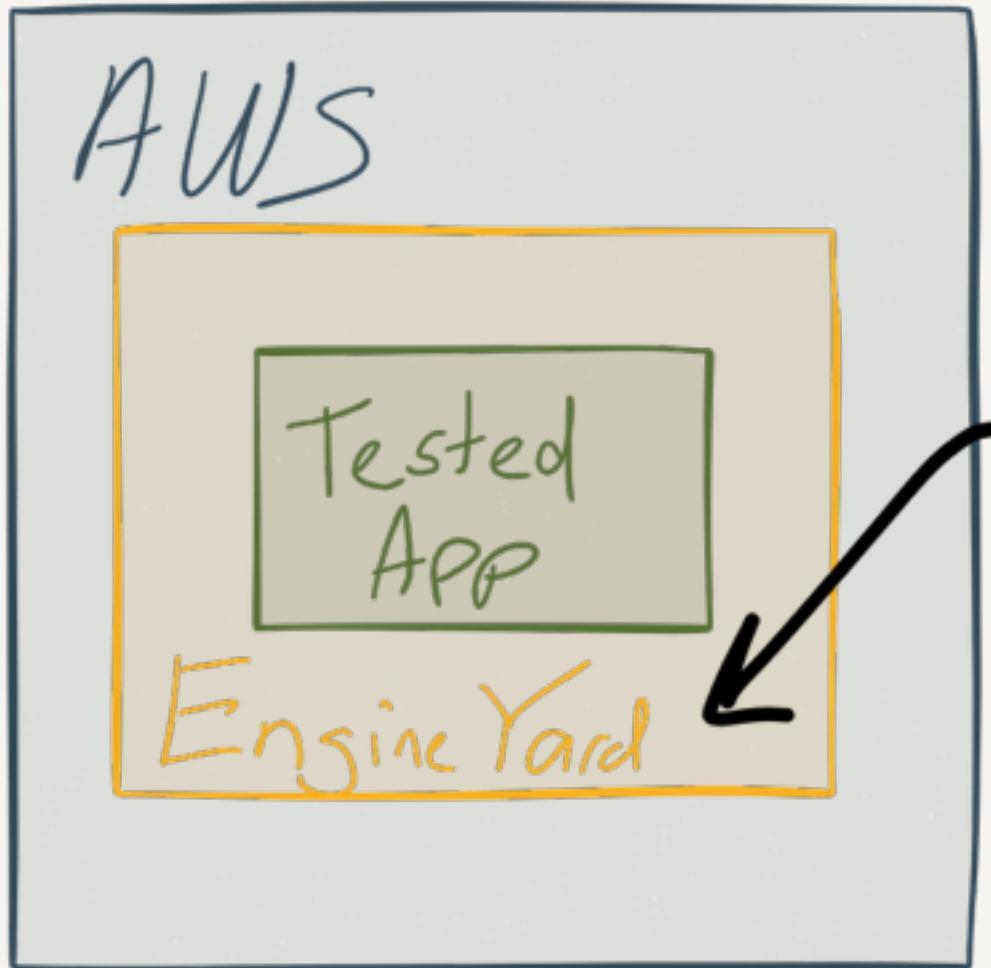
Engine Yard

DB





DB



DNS

AWS

Tested  
App

Engine Yard

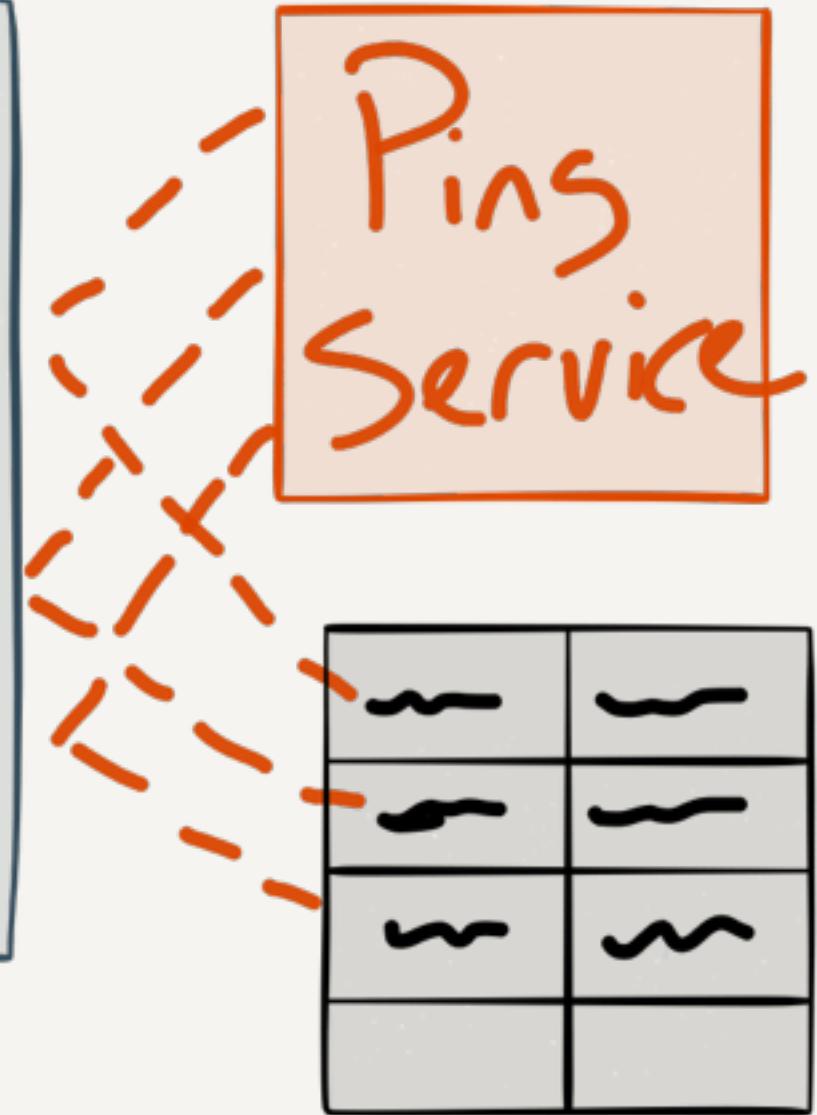
DB

DNS

AWS

Tested  
App

Engine Yard



AWS

Tested  
App

Engine Yard

Pins  
Service

AWS

Tested  
App

Engine Yard



BAD

Client+



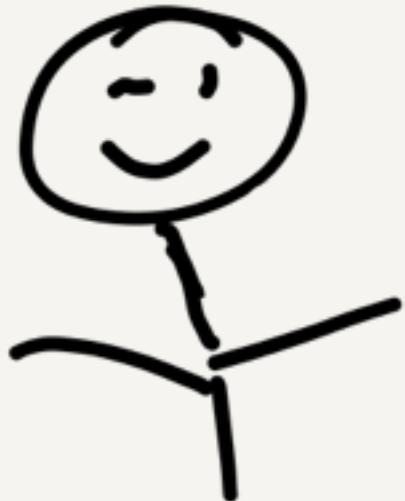
My.  
sites  
DOWN!

Us



GOOD

Client



Your  
site's  
down.  
We're  
ON  
IT!



# BETTER

Client



My.  
sites  
DOWN!

Us, <sup>No</sup>  
it's  
NOT



Proof

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Test

(4)

Each  
Environment

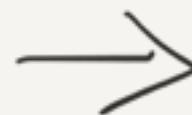
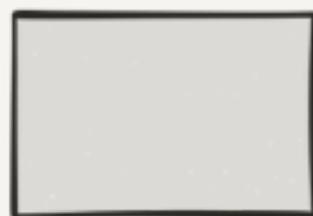
Local  
Dev

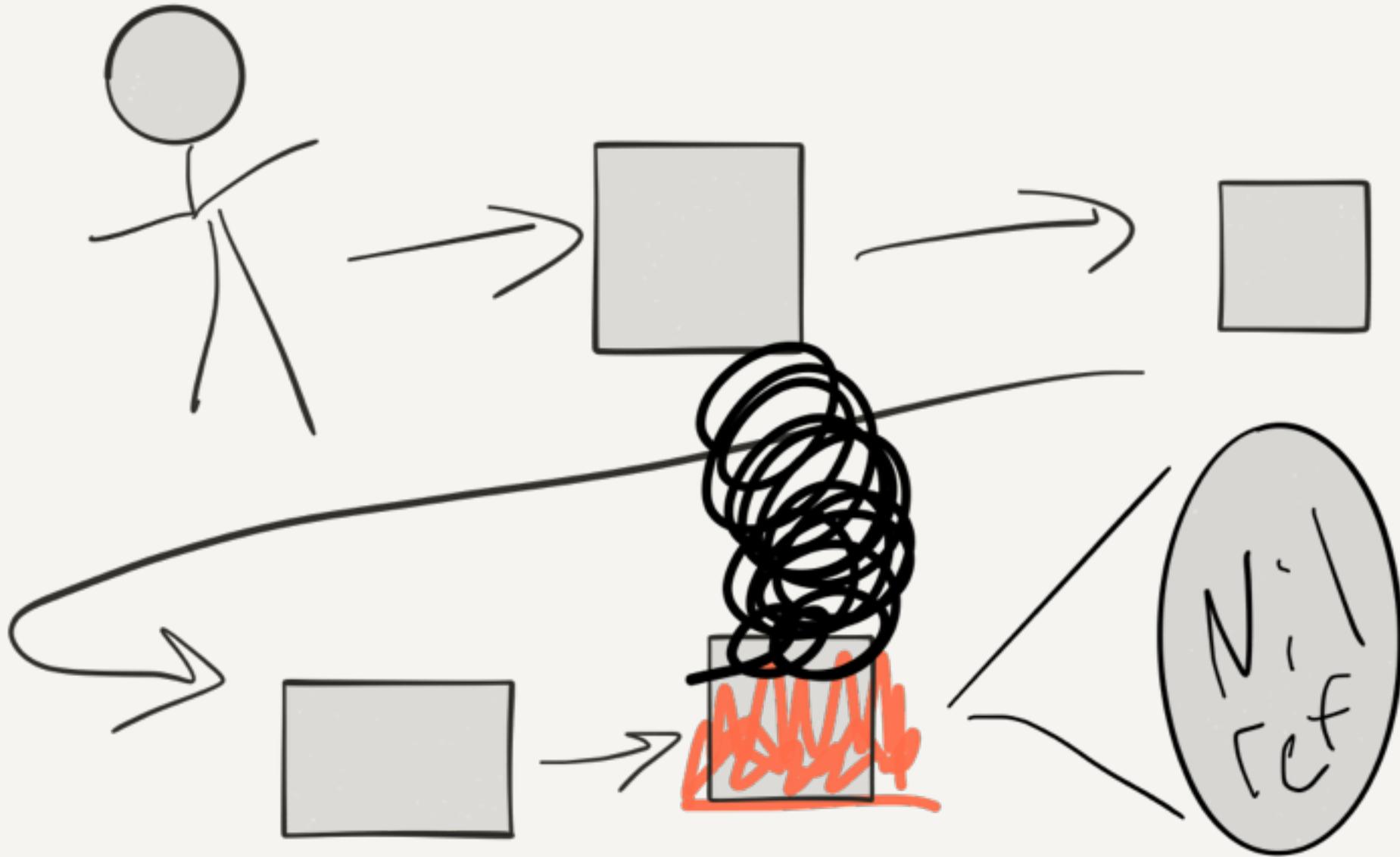


Staging

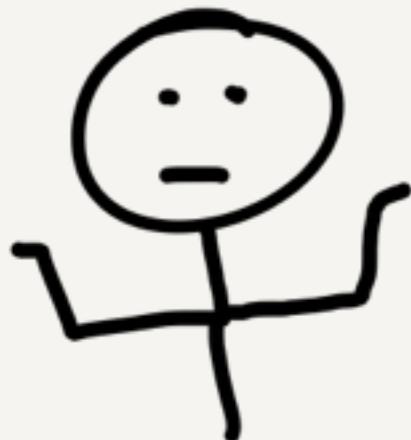
A red arrow points from the 'Staging' box towards the 'Live' box.

Live





Local Dev



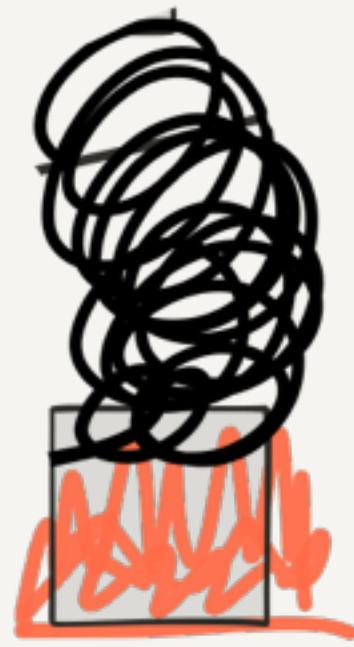
Live



Stash

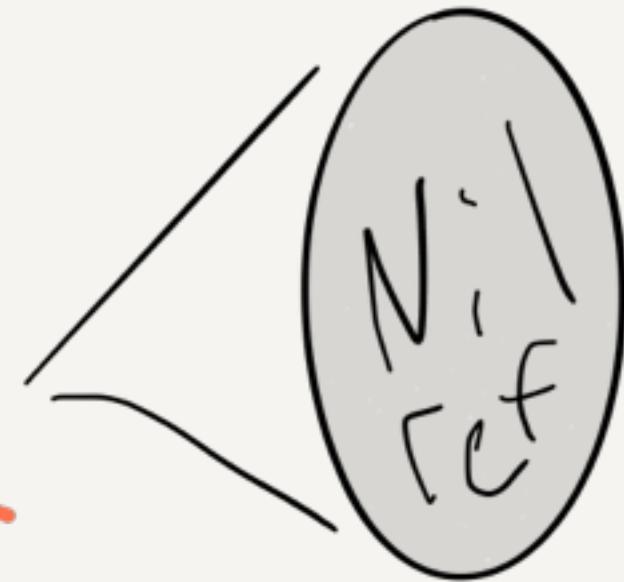
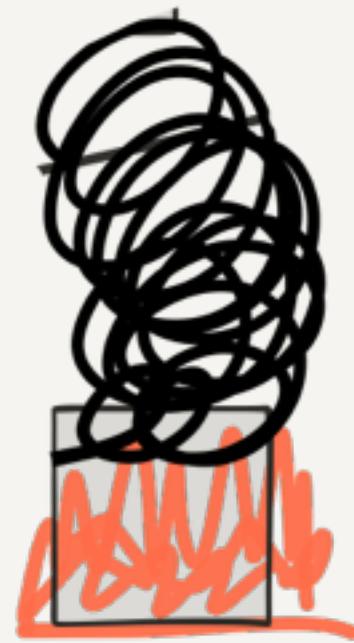


2 weeks



~~8 weeks~~

weeks



# Results

0 prizes

\$0 invoiced

# Results

0 prizes

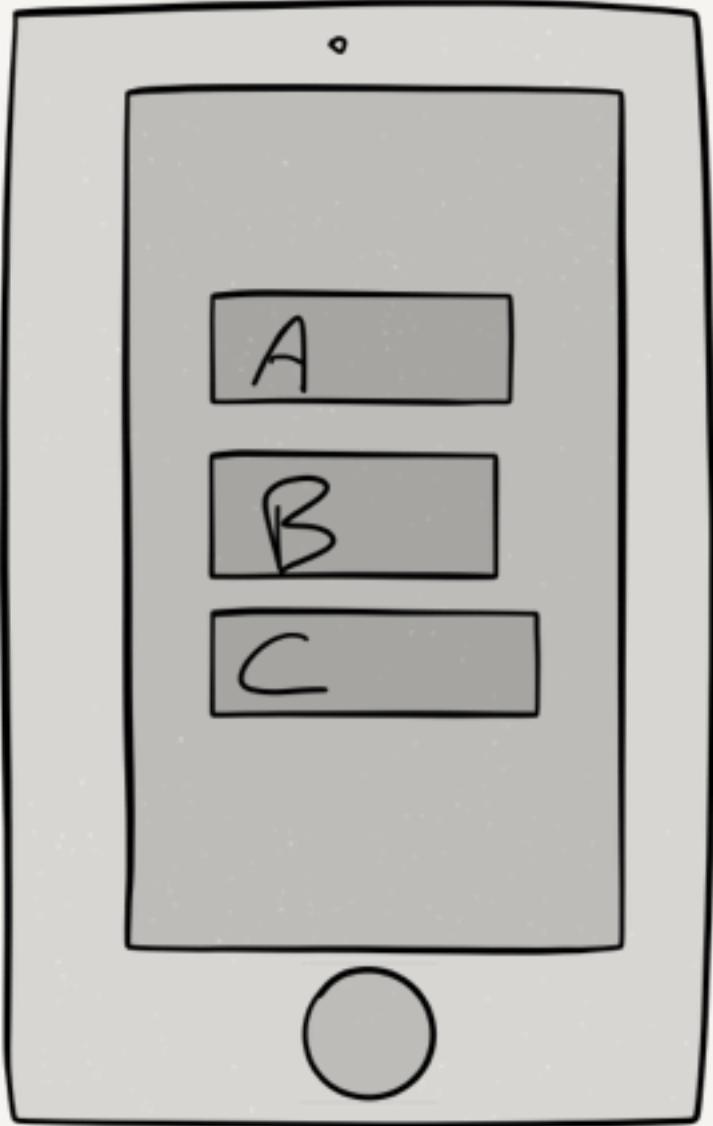
\$0 invoiced

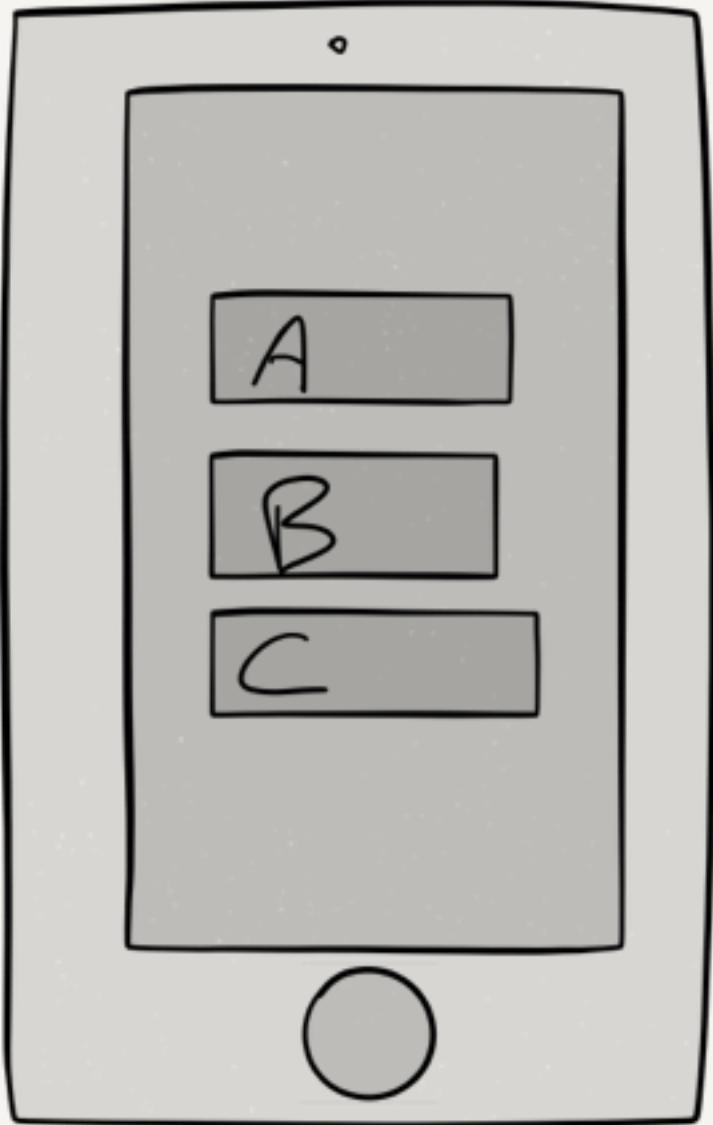
\$~18K paid to dev

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

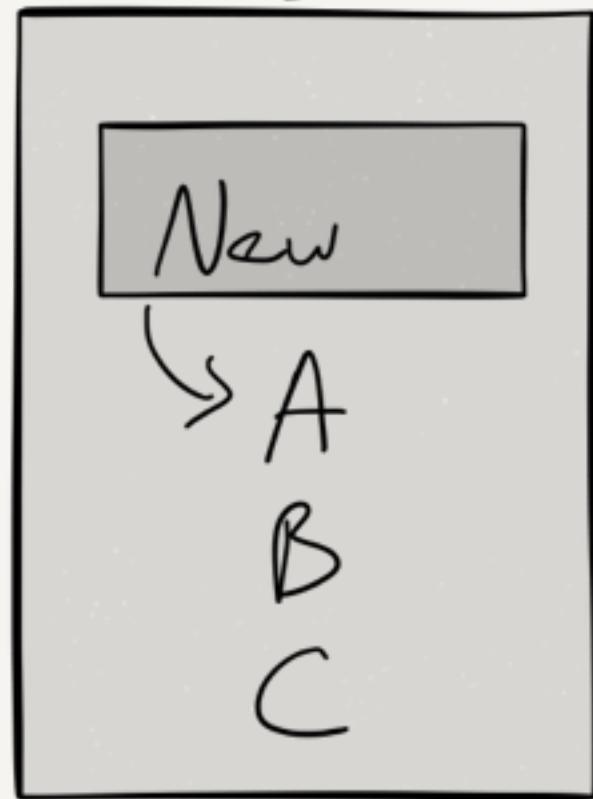
S

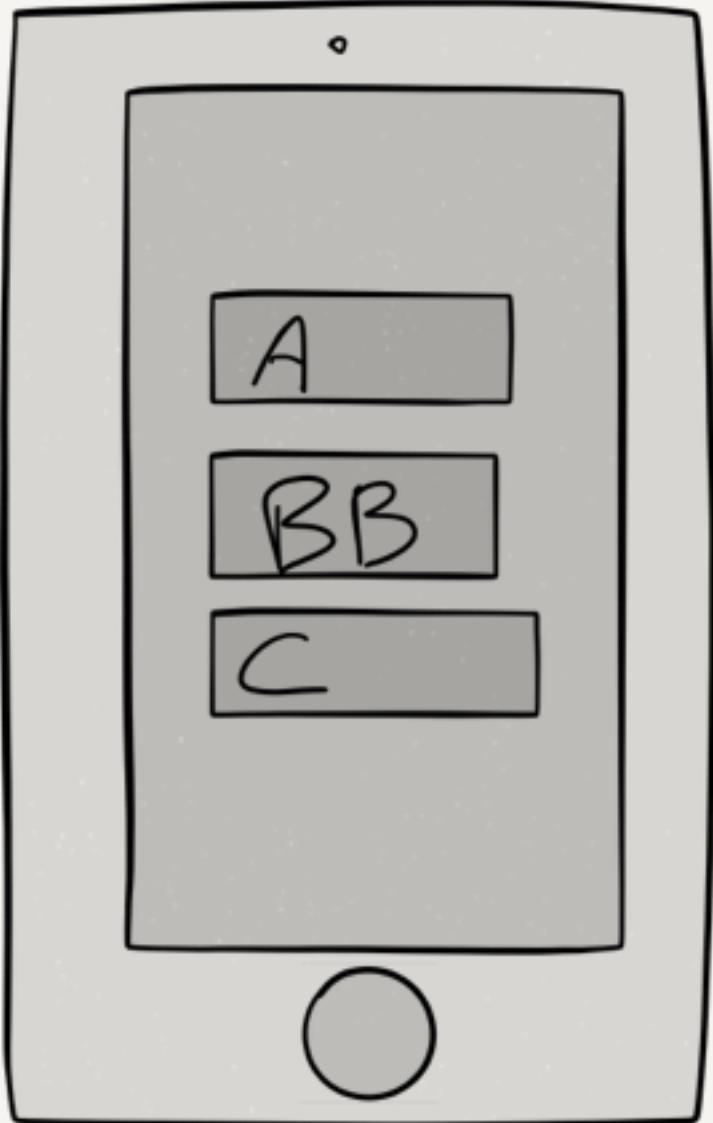
User  
input is  
Gold



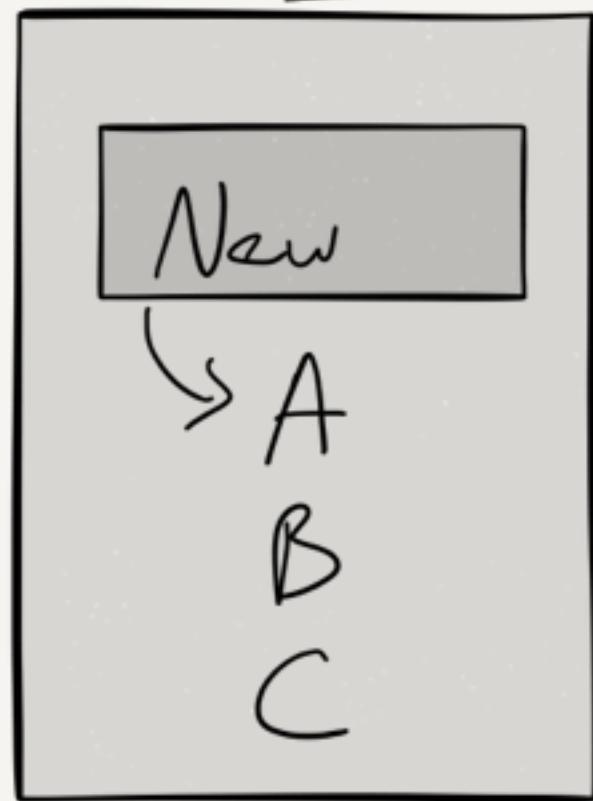


APT

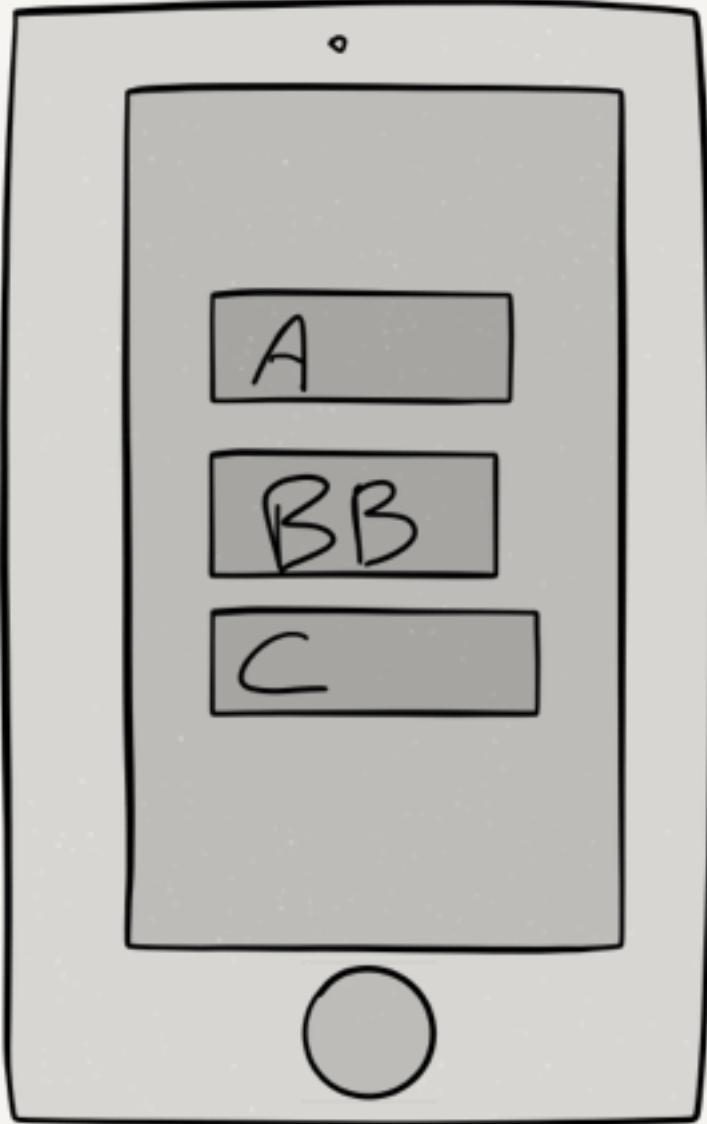




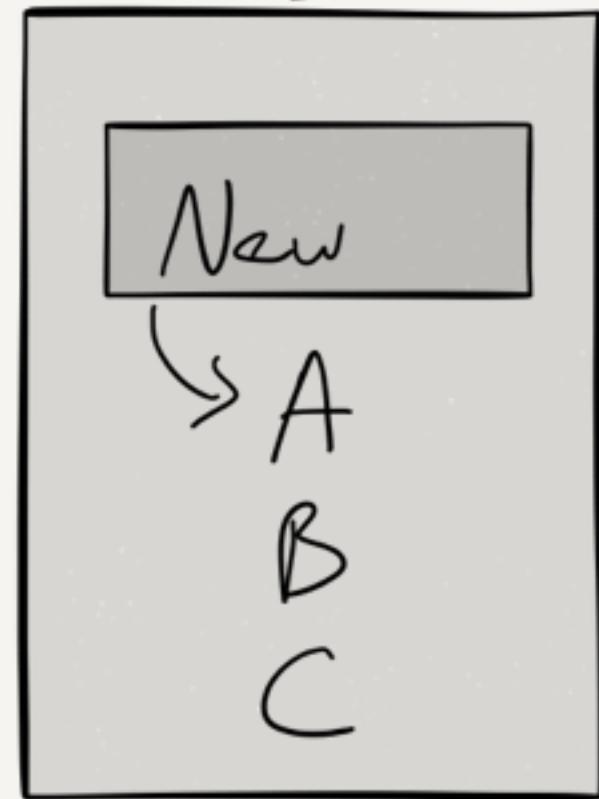
APT



	Avg	Min	Max
A	7	1	10
B	0	0	0
C	5	9	2



APT



id	a	b	c
1	9	7	6

id	data
2	{a:4,b:5,c:9}

id	a	b	c	data
9708				{ a: 7 bb: 5 c: 8 }

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Async



Your  
Work

\$100

Submit

Thank  
You

Tested Checkout  
Code

\$100

Submit



→ Tested Checkout

Code X

\$100

Submit



Thank  
You



Worker

Tested Checkout  
Code

\$100

Submit

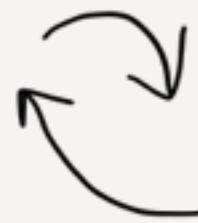
Thank  
You



Worker

Tested Checkout  
Code

Job



Worker

SOS!



Tested Checkout  
Code ~~X~~

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Capture



User

Intent

Date:

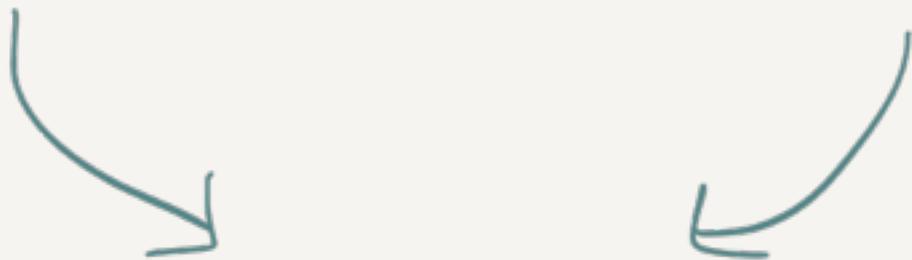
OR

In


Days

In [ ] Days



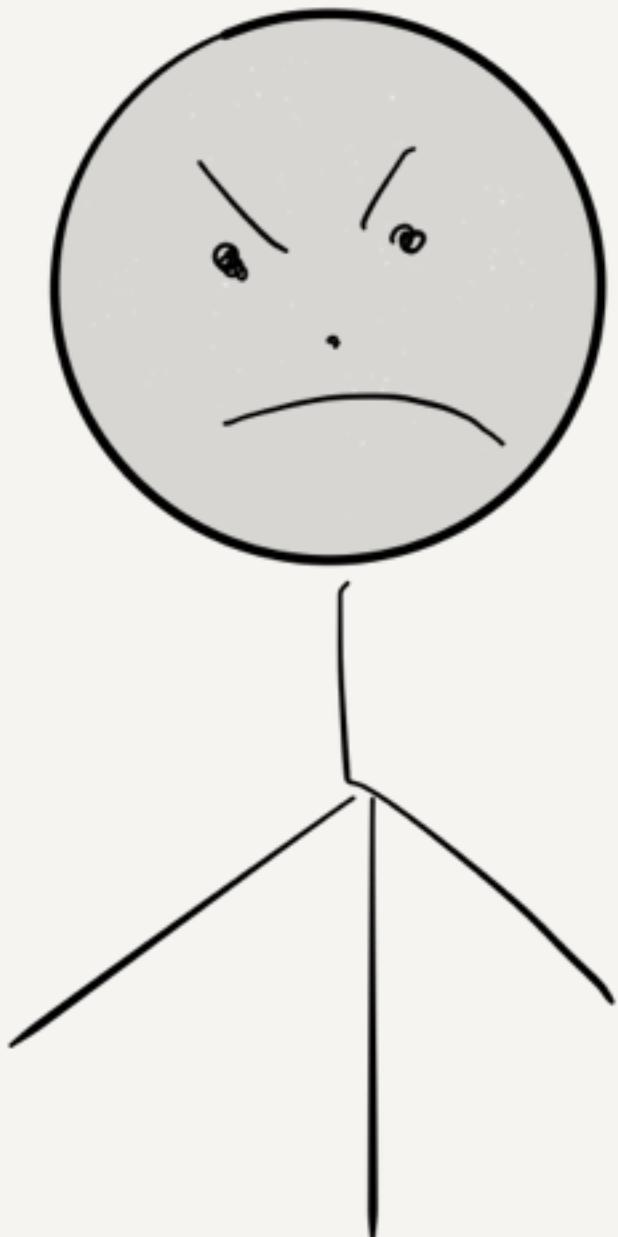
Tested Code



Date

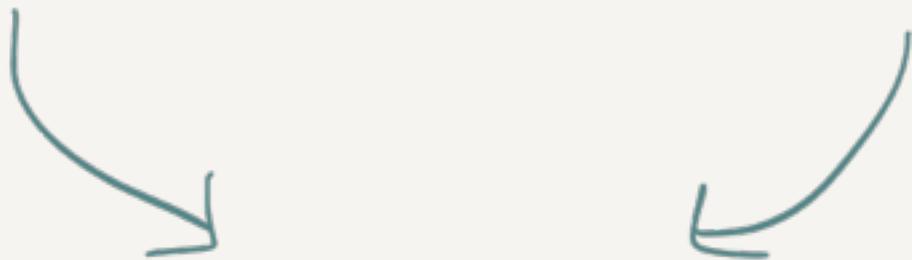


DB



Where's  
My  
ALERT?

In [ ] Days



Tested Code

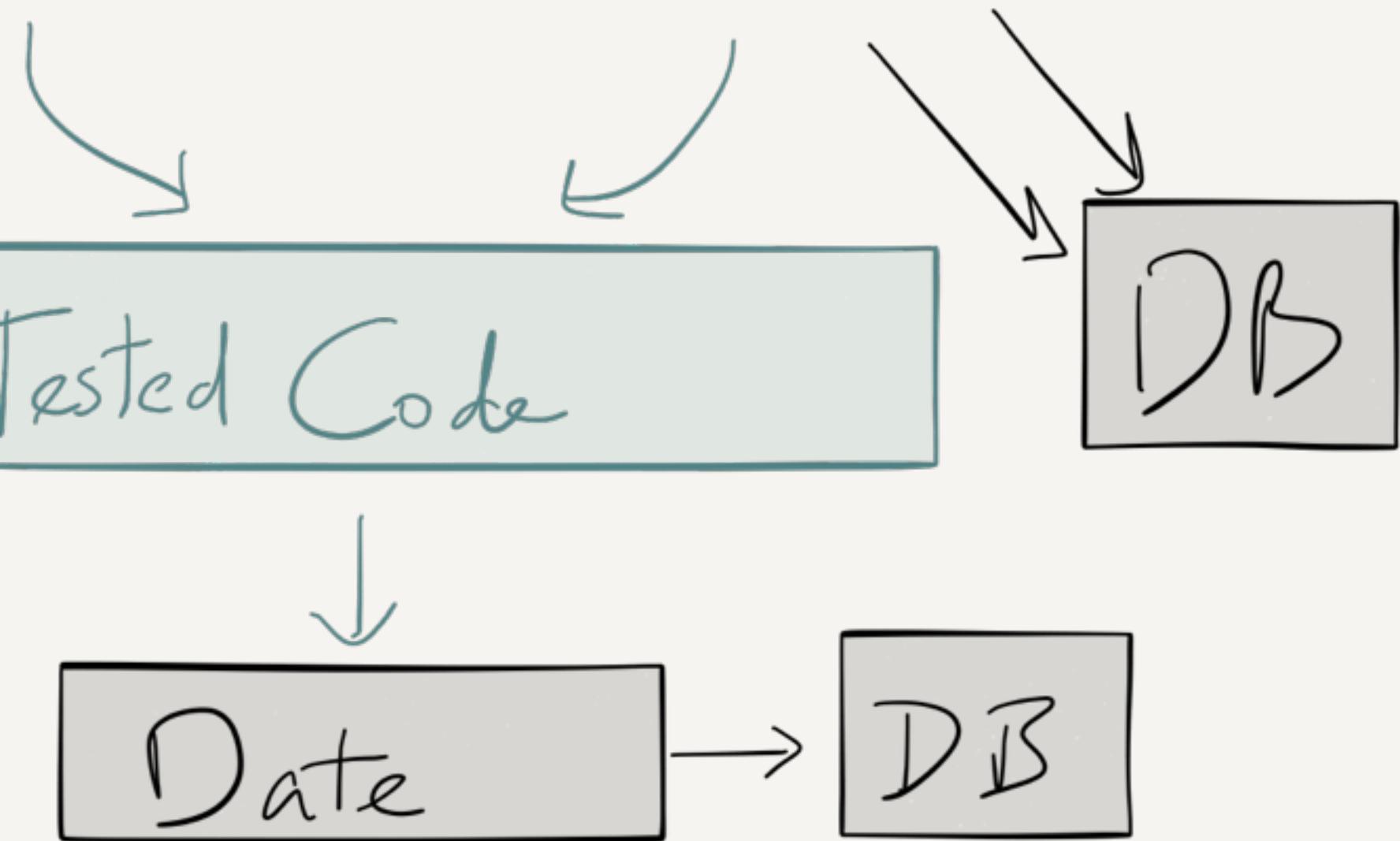


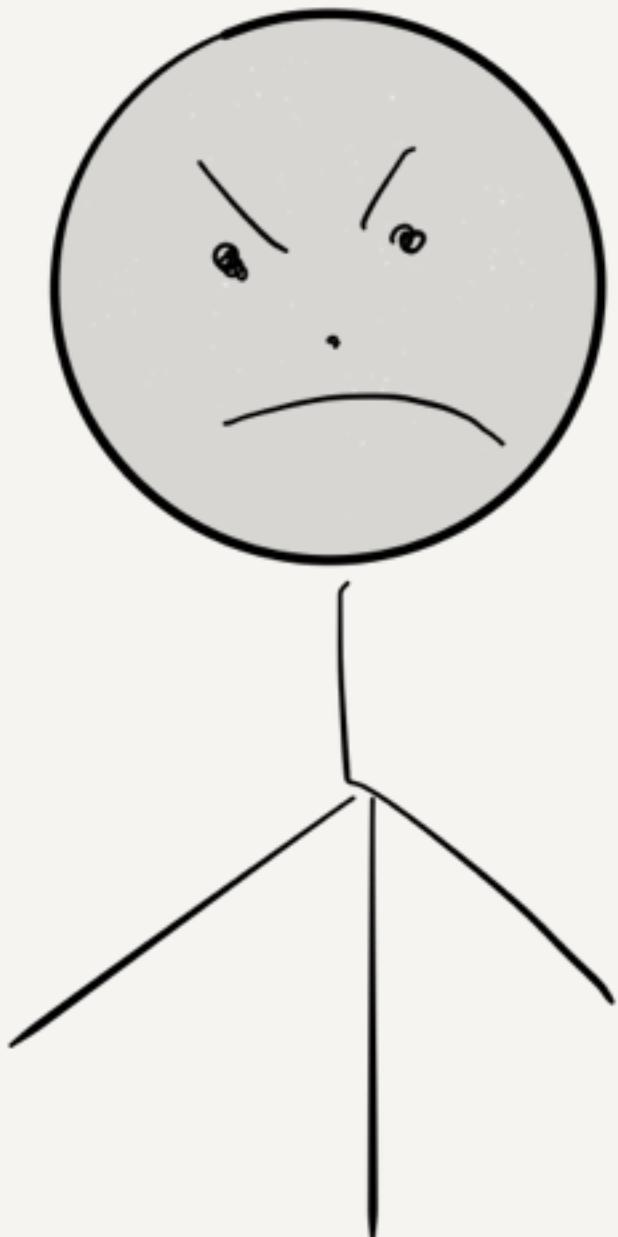
Date



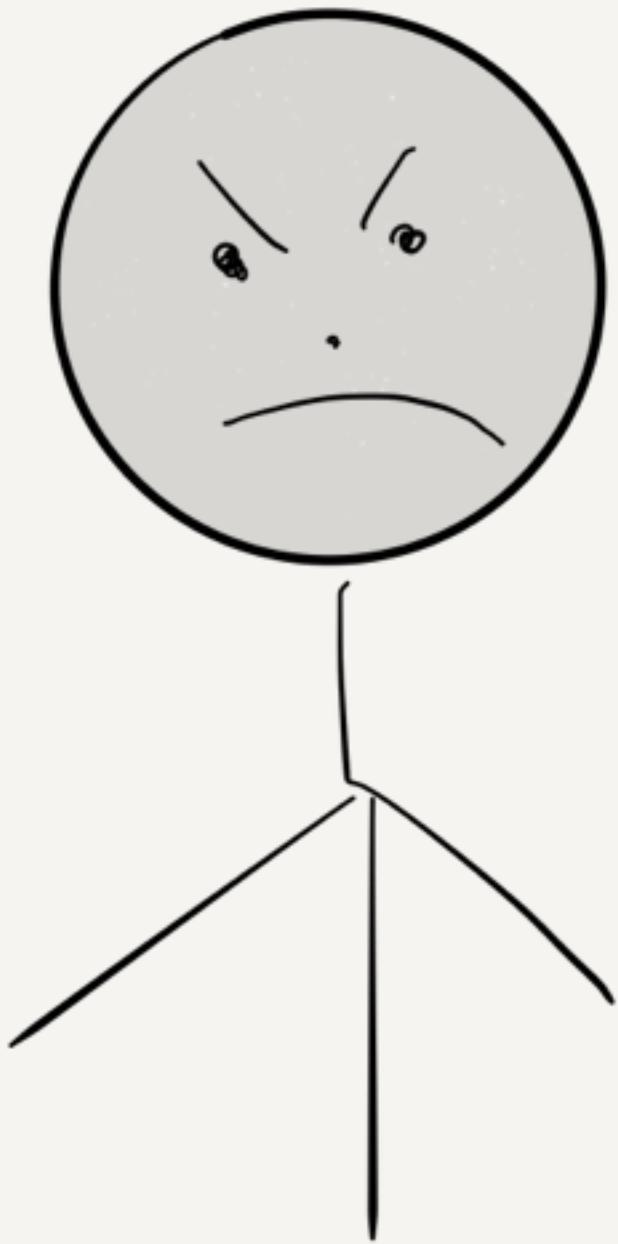
DB

In [ ] Days

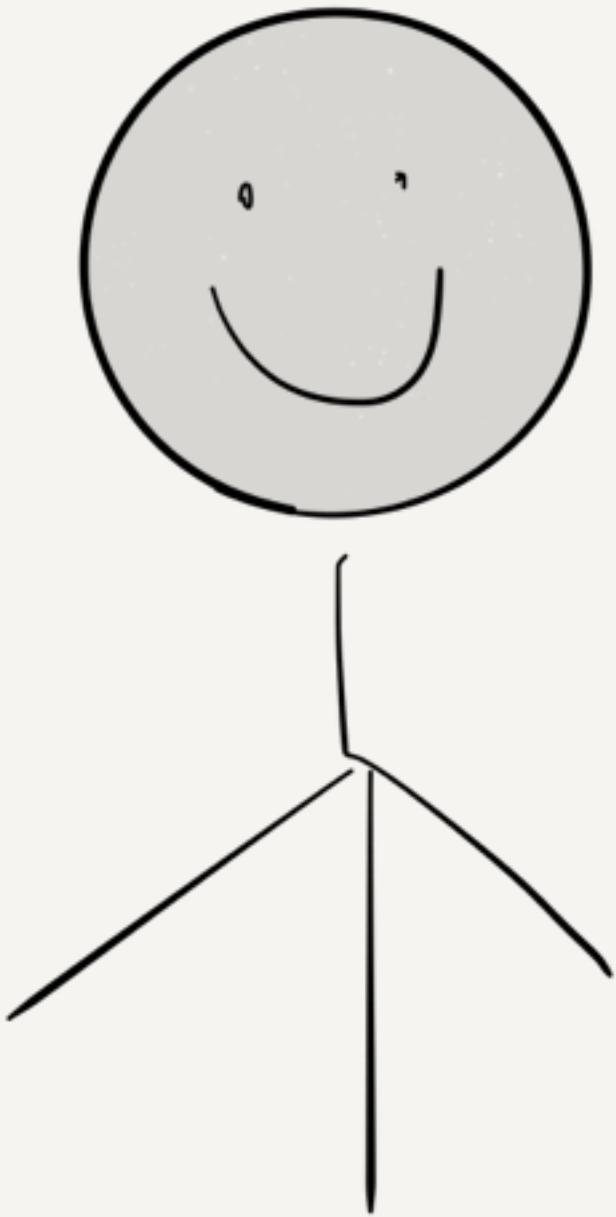




Where's  
My  
ALERT?



Oh...



Sorry!

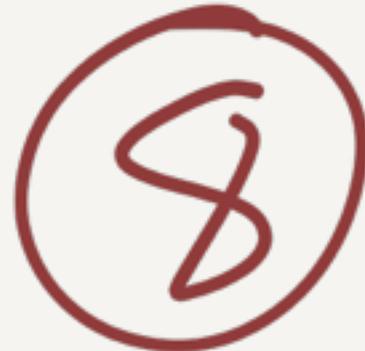
CYA.

~~CO~~IA

~~T~~rust

- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

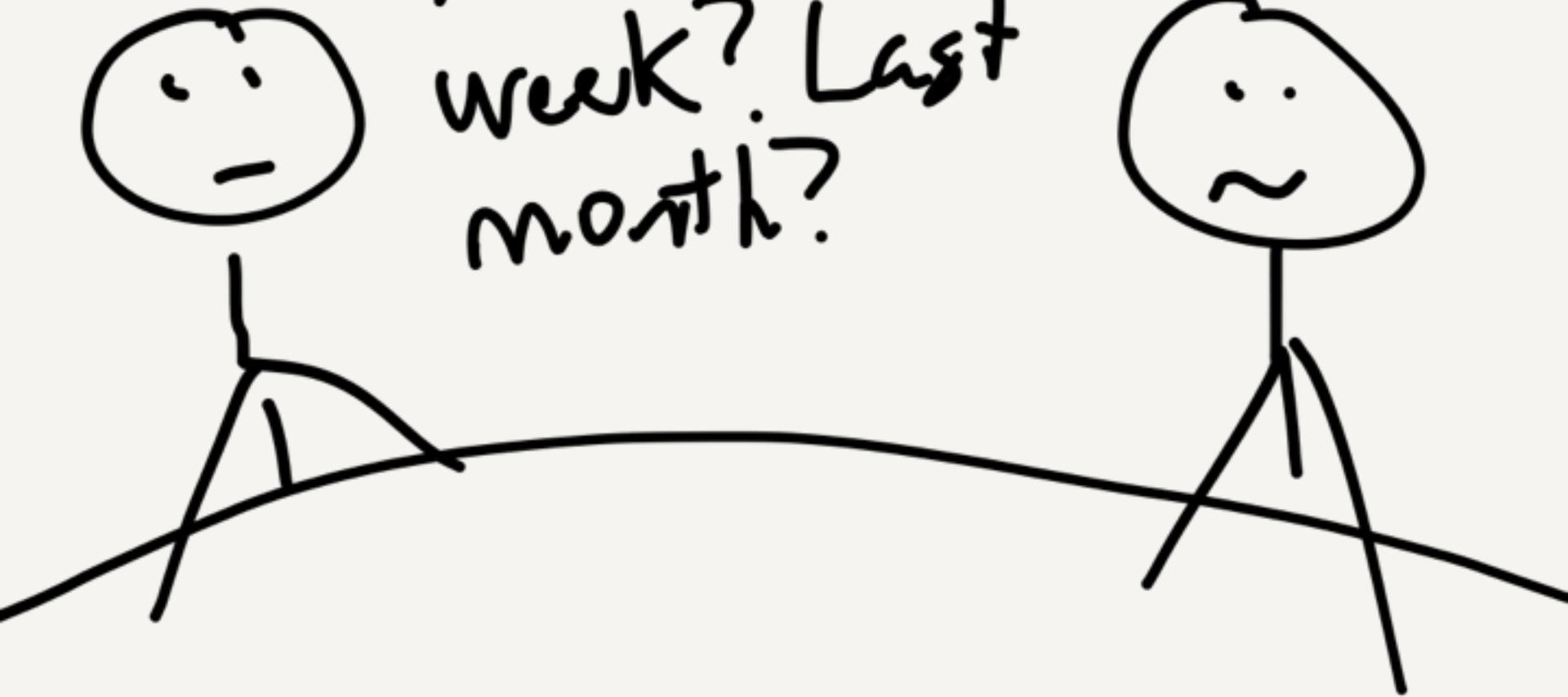
Count



Your  
Data

How many X  
today? Last  
week? Last  
month?

Um...

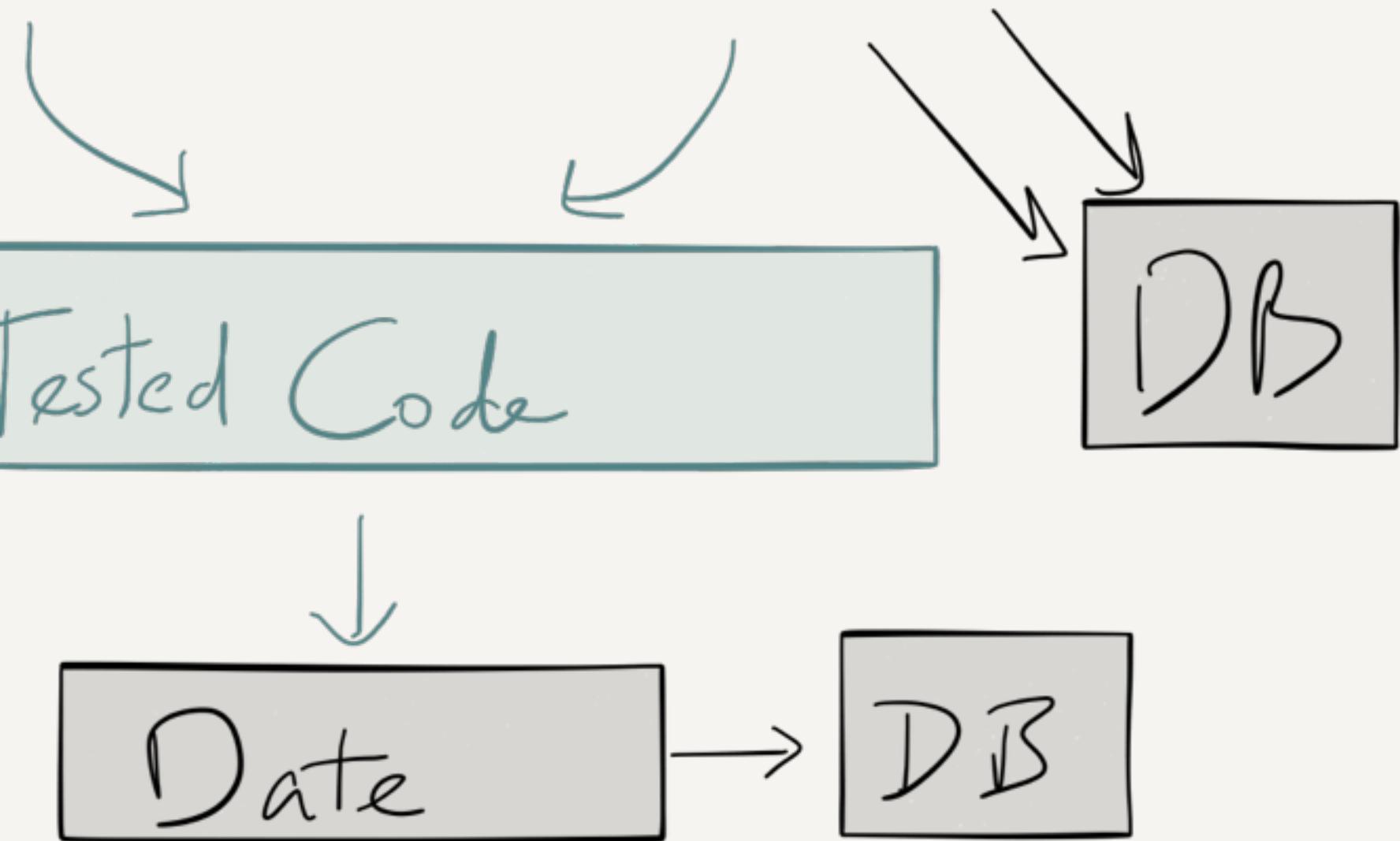


Select Count()

From X

Where (date ...)

In [ ] Days



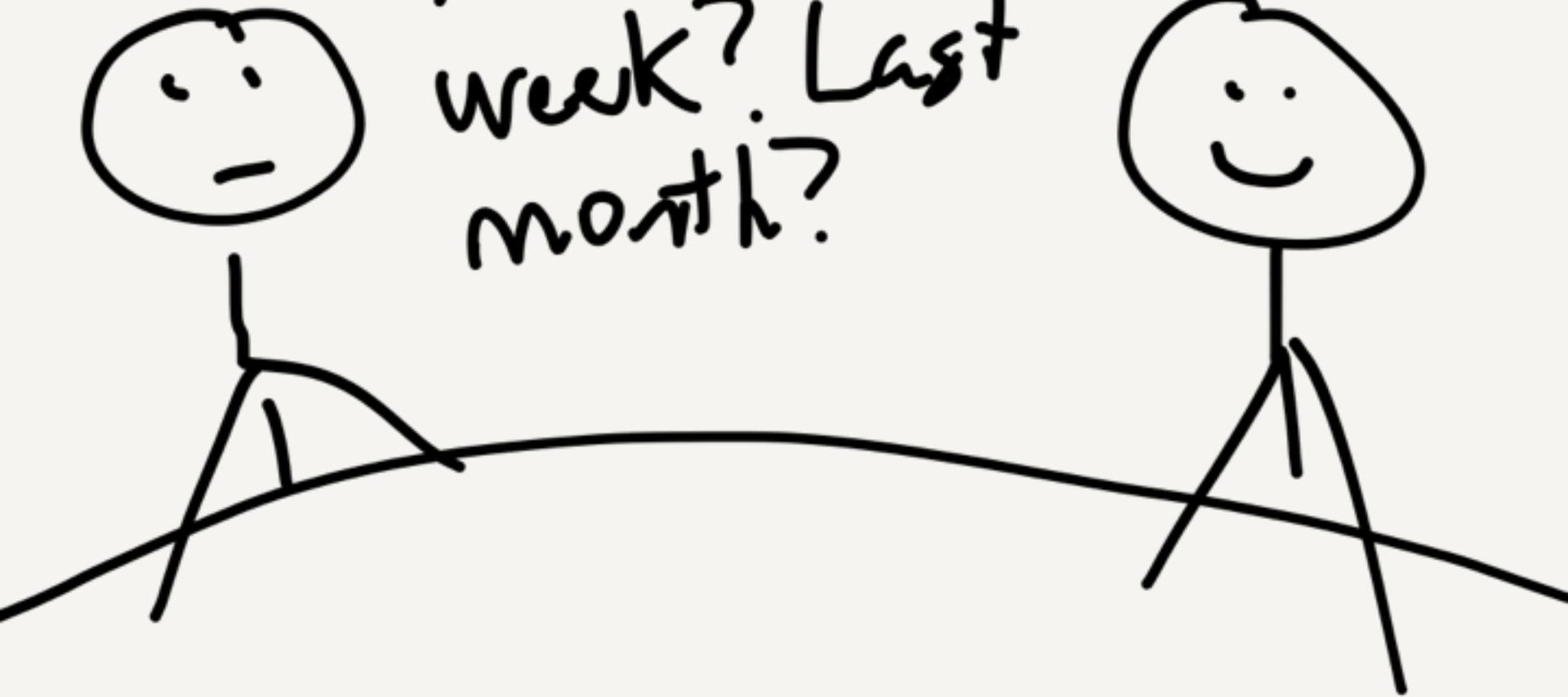
# Dashboard



Orders	4
Password Resets	1
X	201

How many X  
today? Last  
week? Last  
month?

4. 10.  
121



Nice  
Dashboard!



- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

Count when

Nothing

Happens

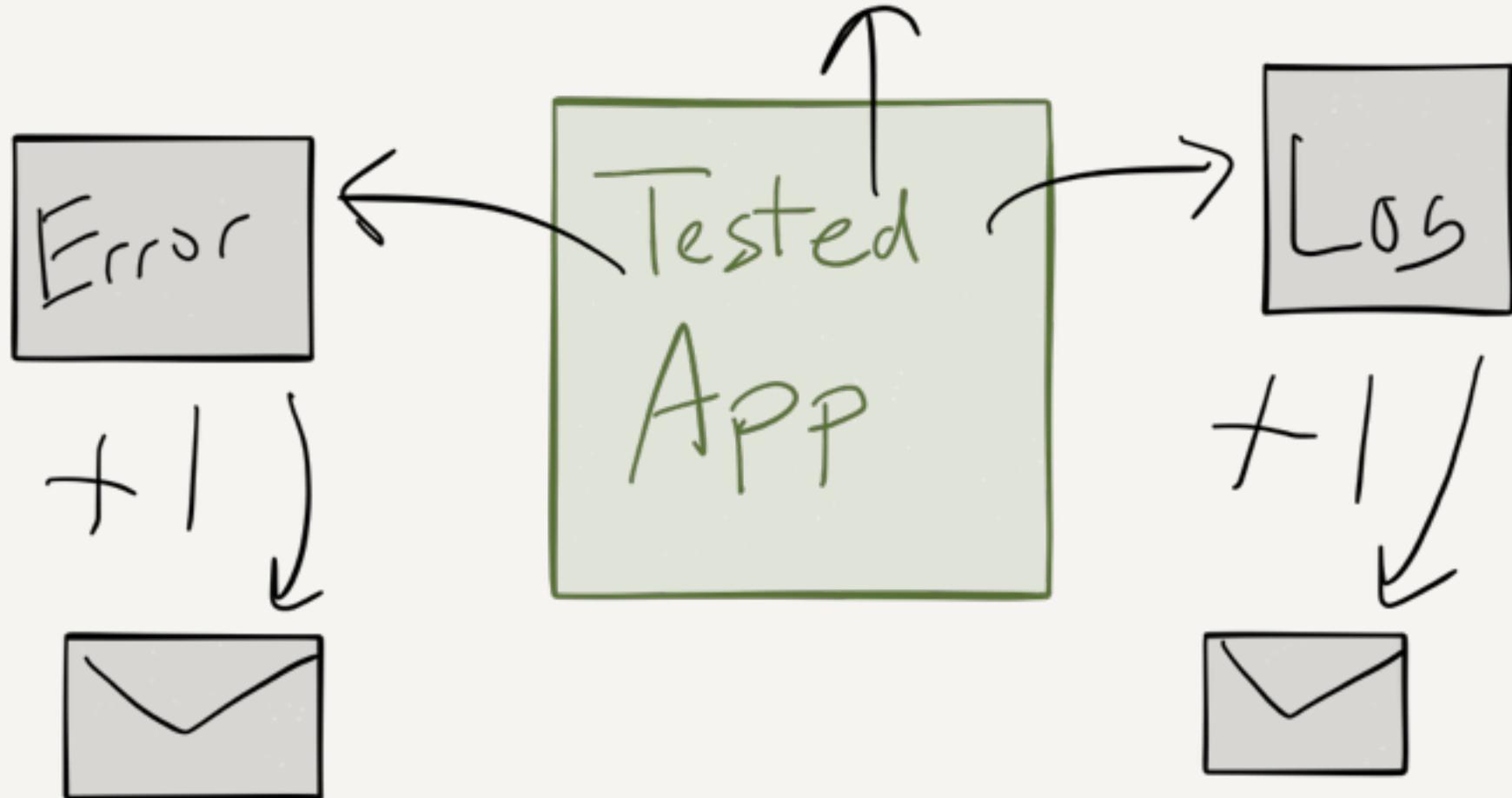
@

Tested  
App

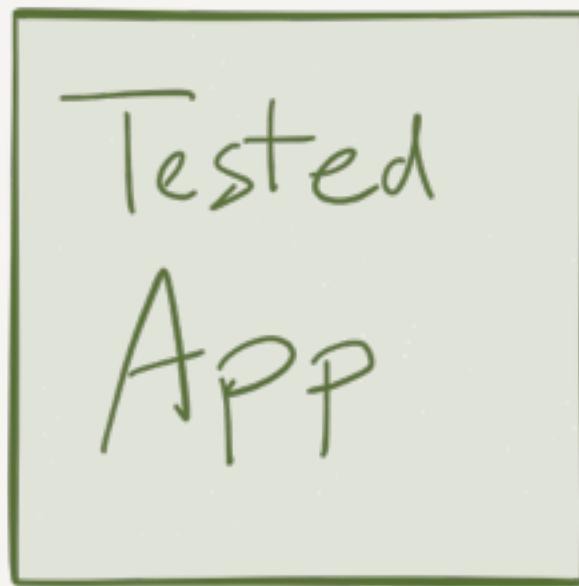
DB Record

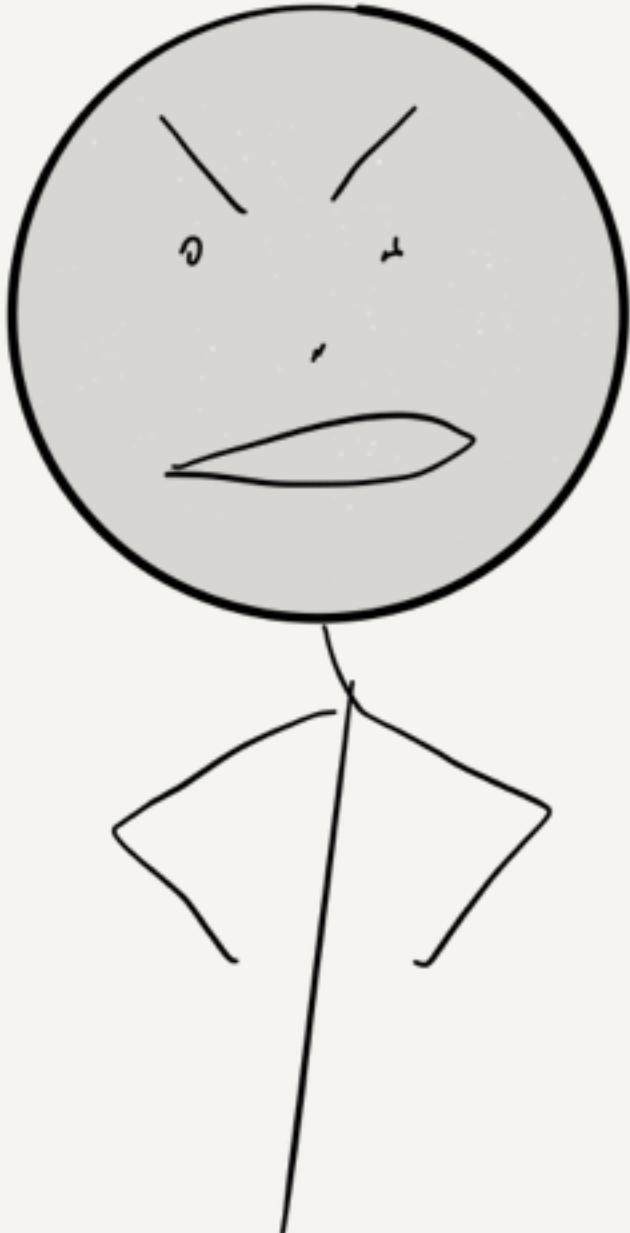


DB Record + |

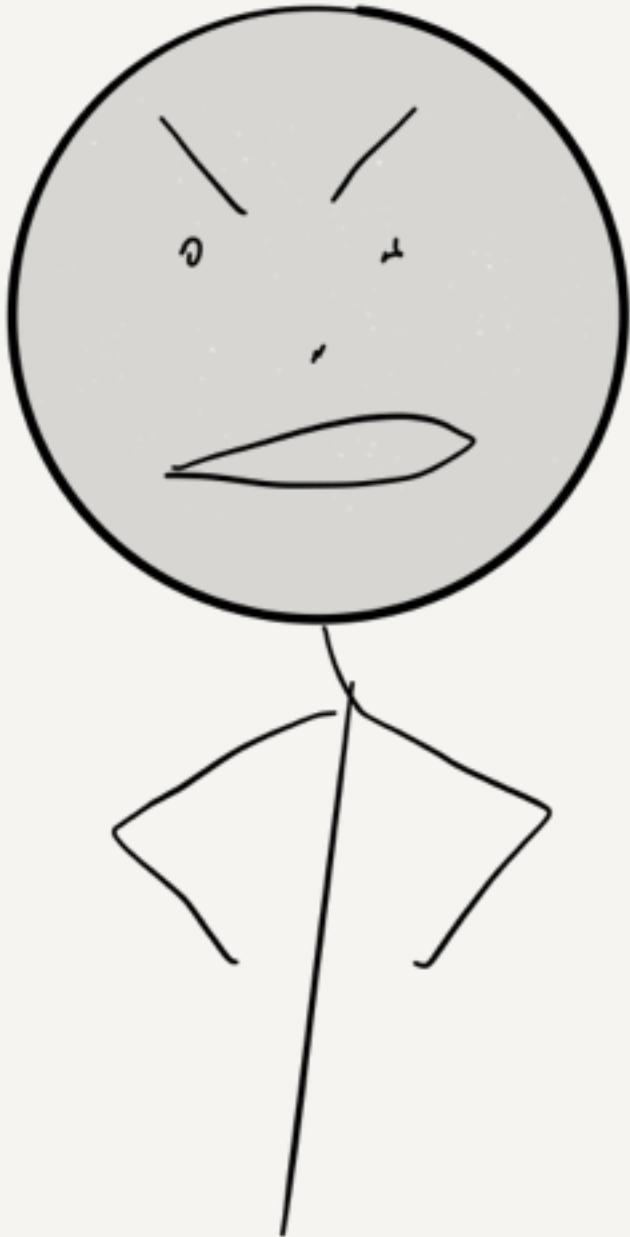


Tested  
App

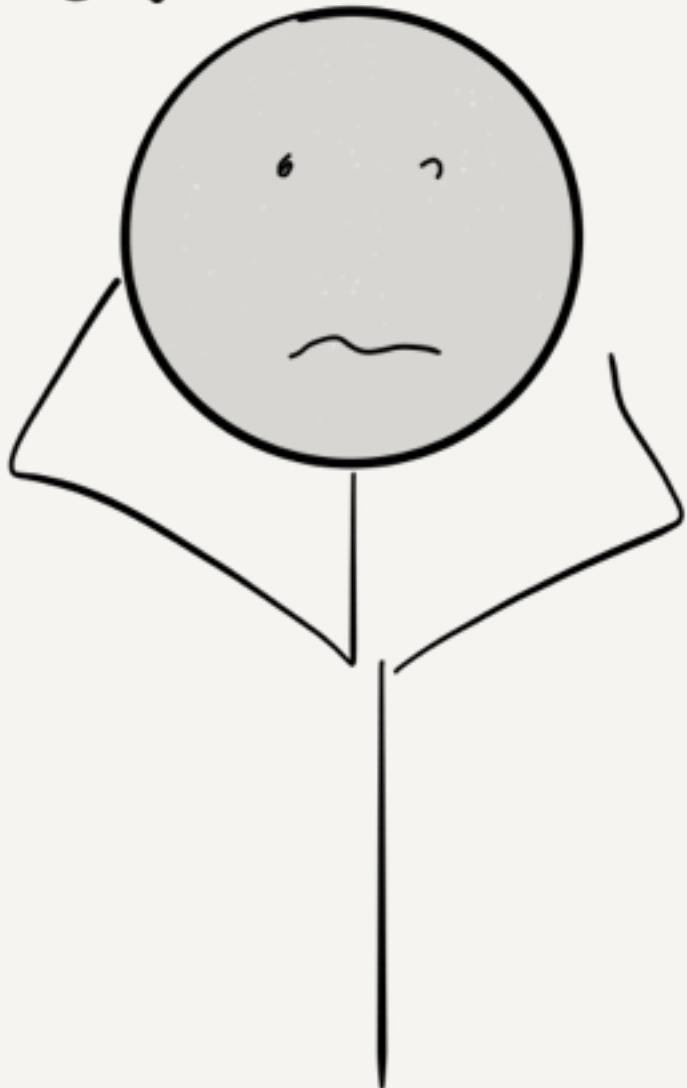




So . . .  
It's been  
DAYS since  
our last  
order . . .



Sorry?



AWS

Tested  
App

Engine Yard

DB

DNS

/orders /counts

{

days\_ago\_0: 1,

days-ago\_1 : 9,

days-ago\_2: 14

}

/orders /counts

{

days\_ago\_0 : Ø,  
days\_ago\_1 : Ø,  
days\_ago\_2 : Ø

}

/orders /counts

{

days\_ago\_0: Ø,

days\_ago\_1: Ø,

days\_ago\_2: Ø

3



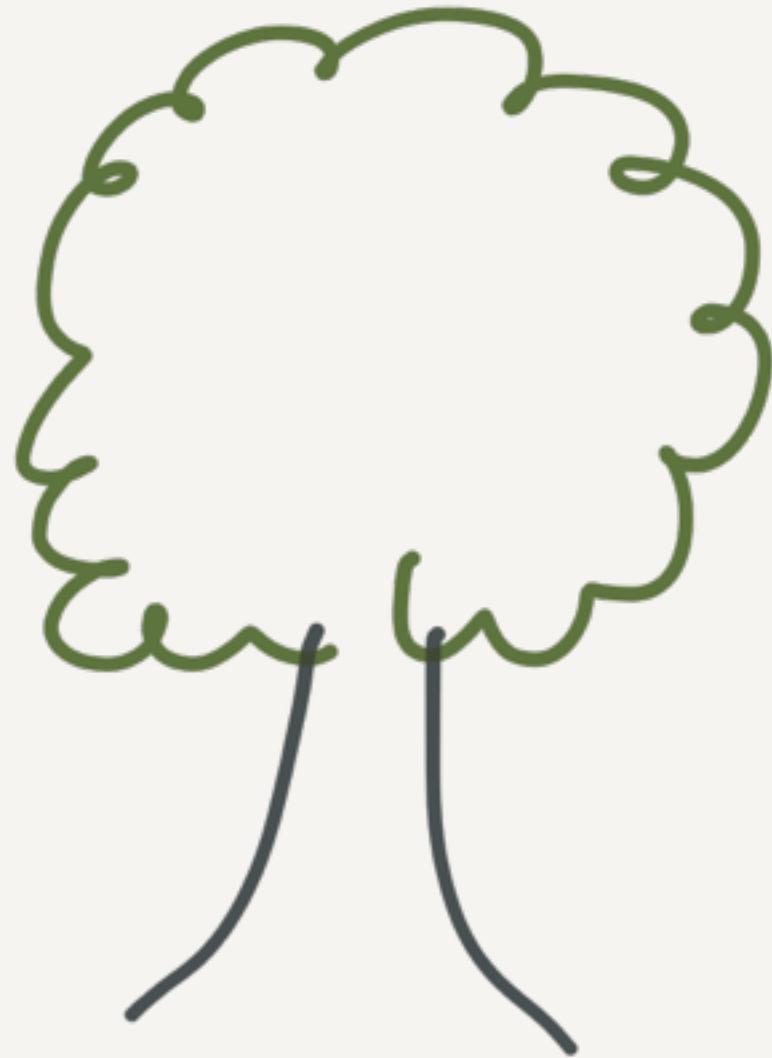
- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!

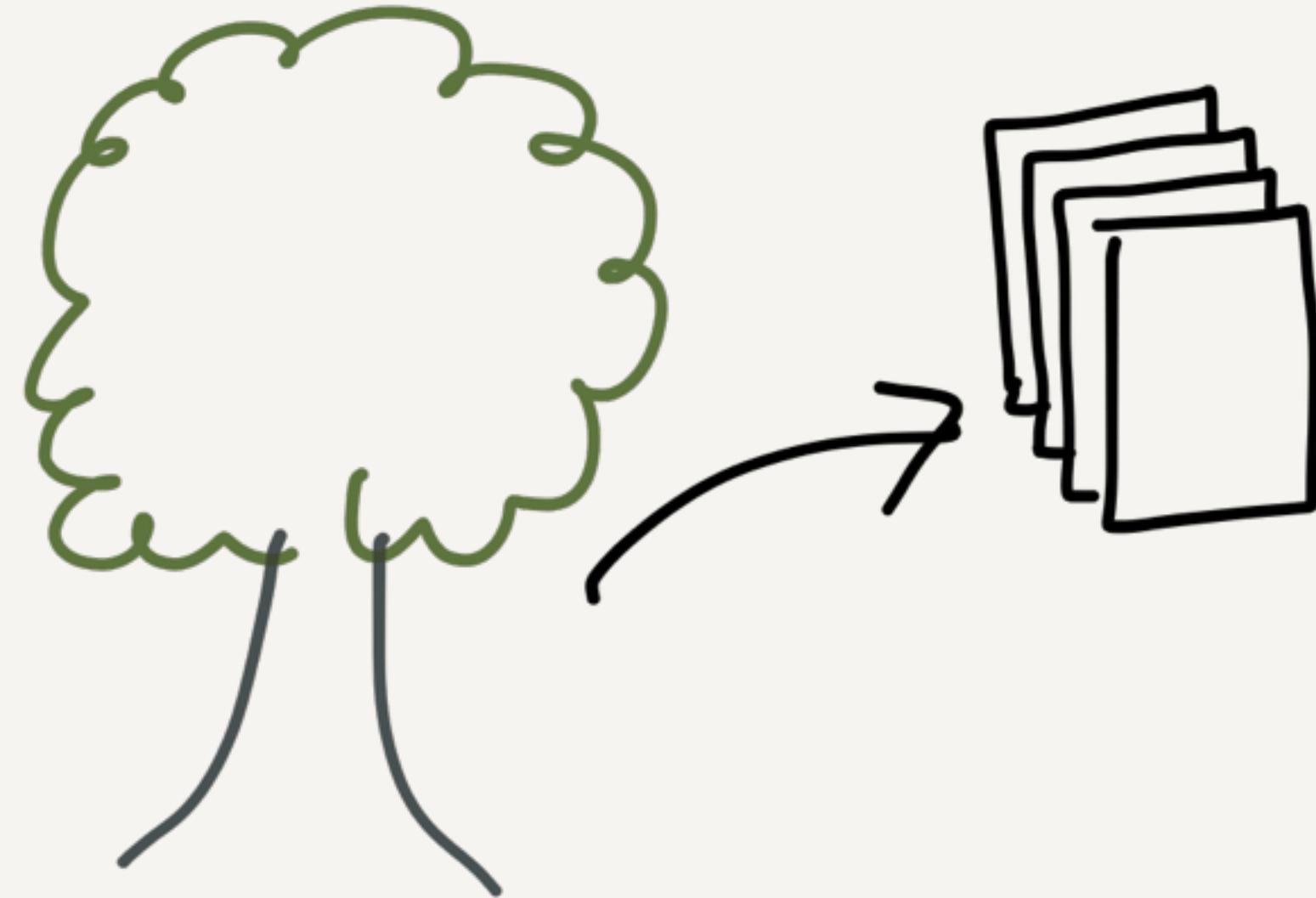
Ease Up

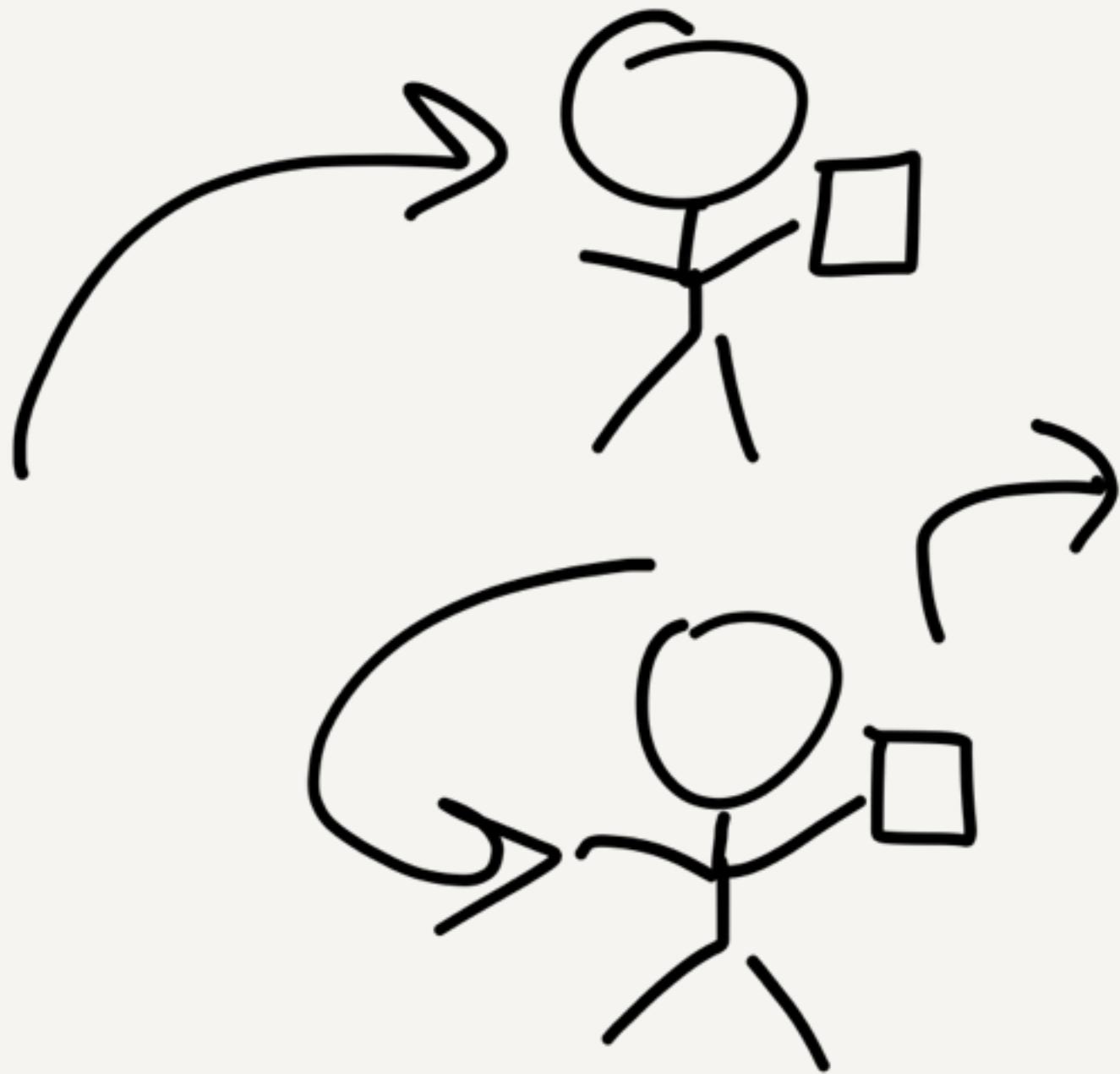
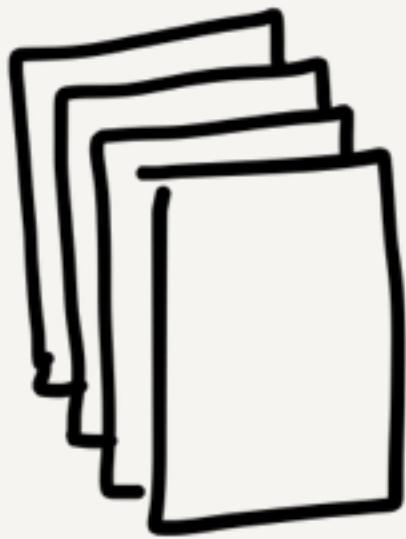
⑩

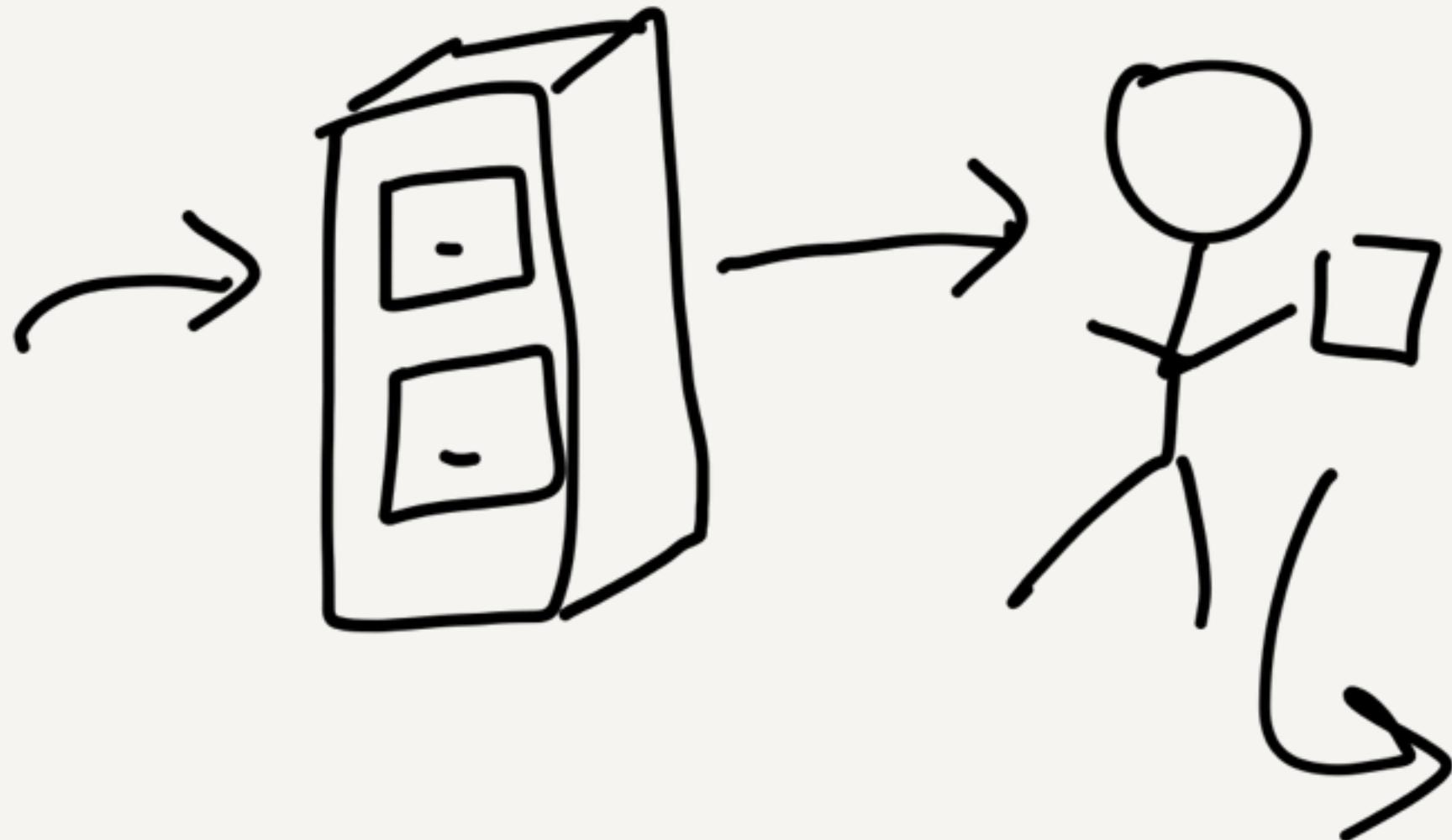
On

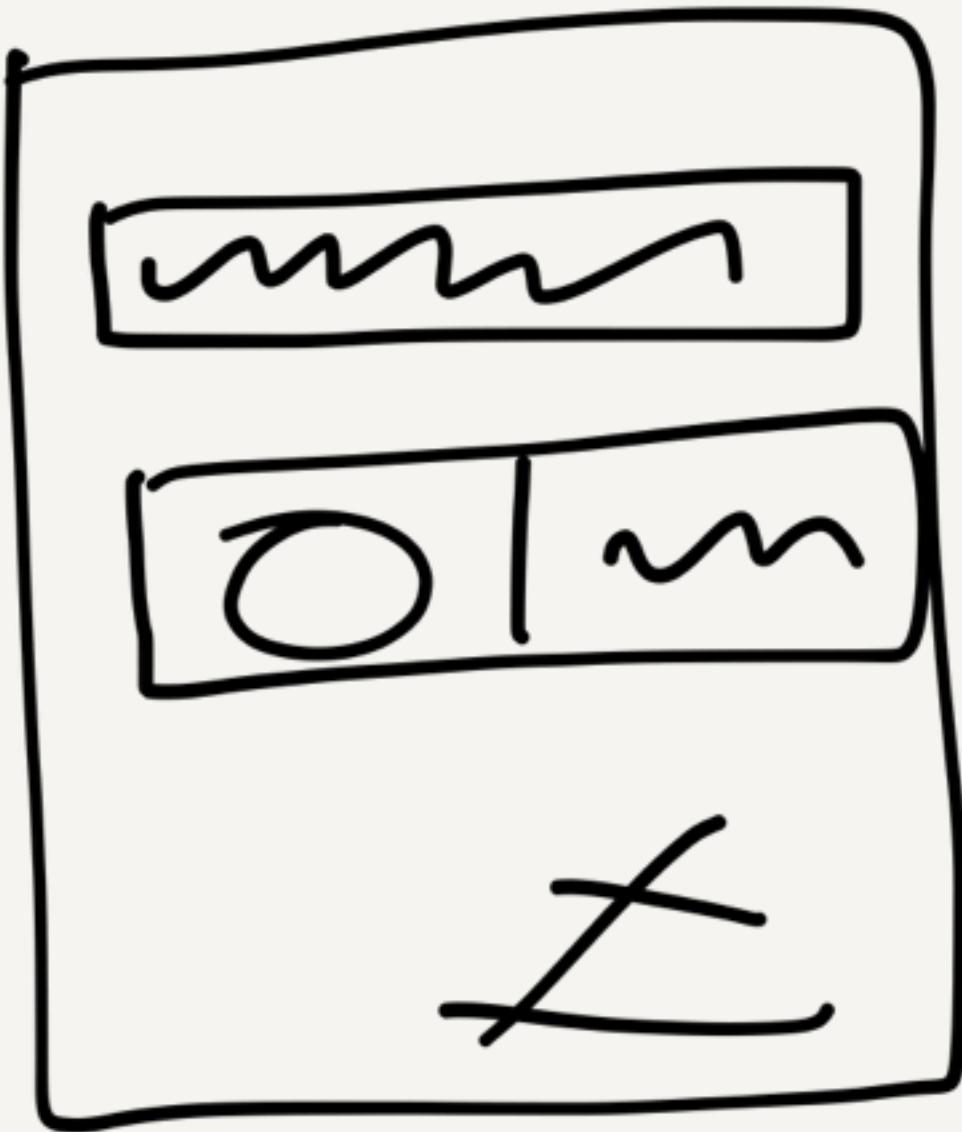
Validation

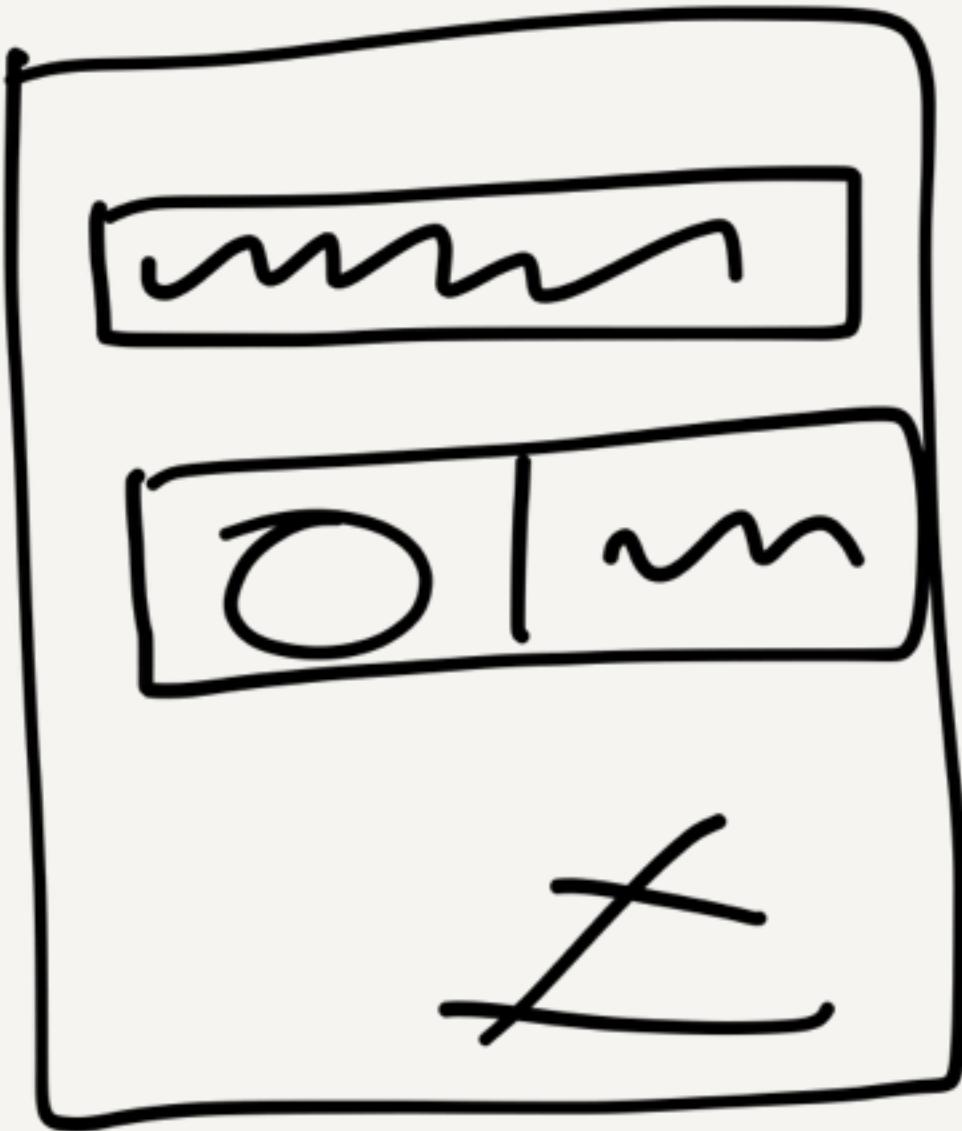


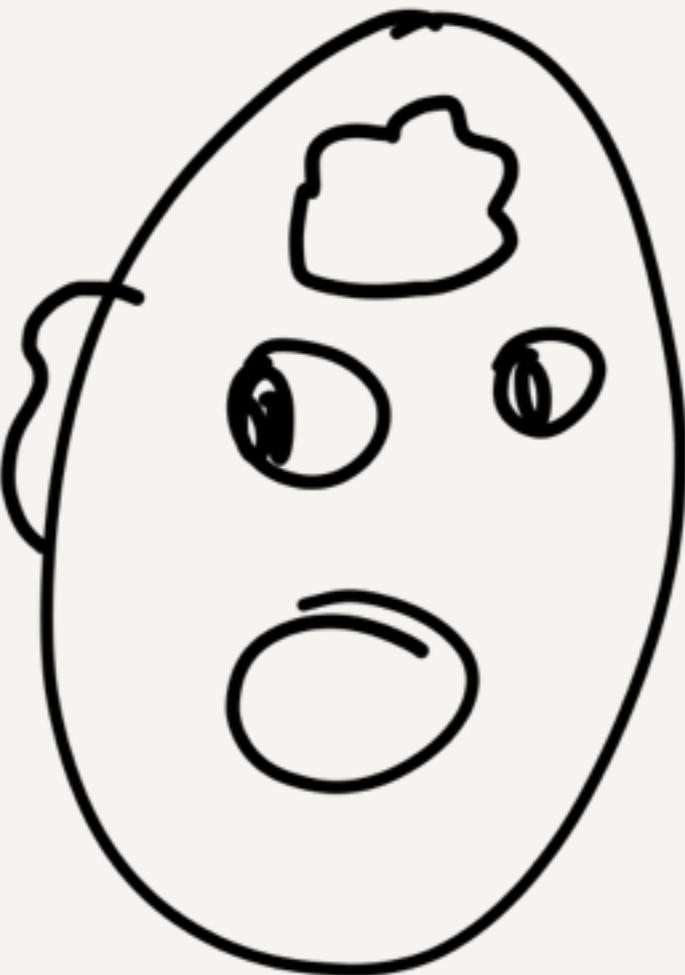
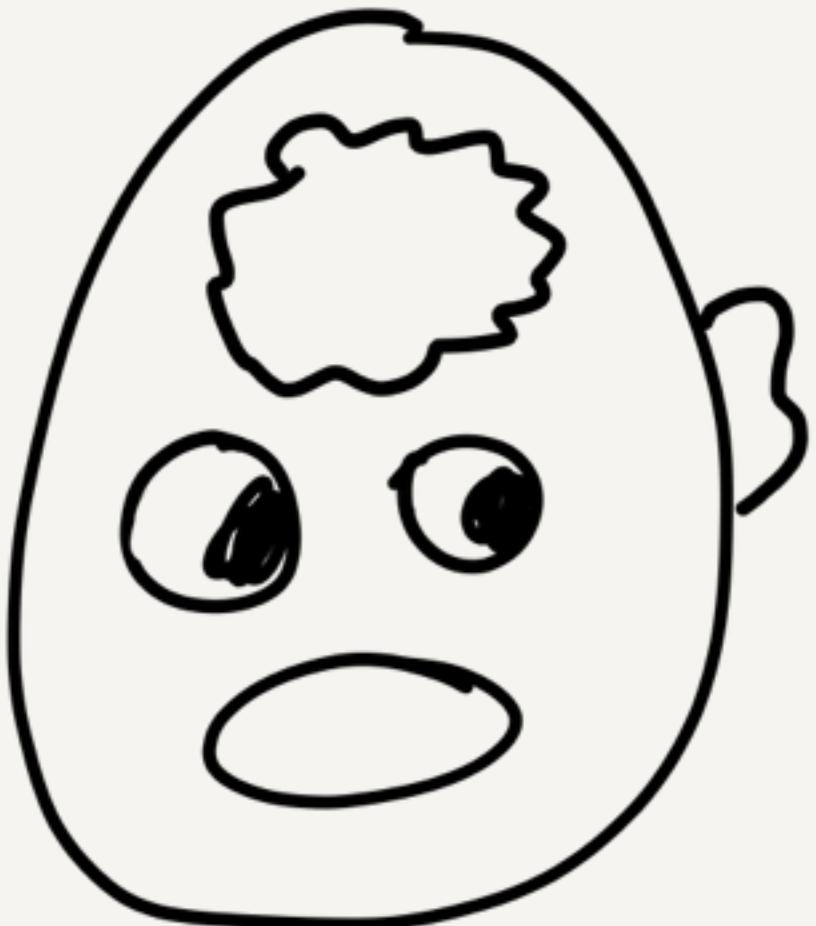


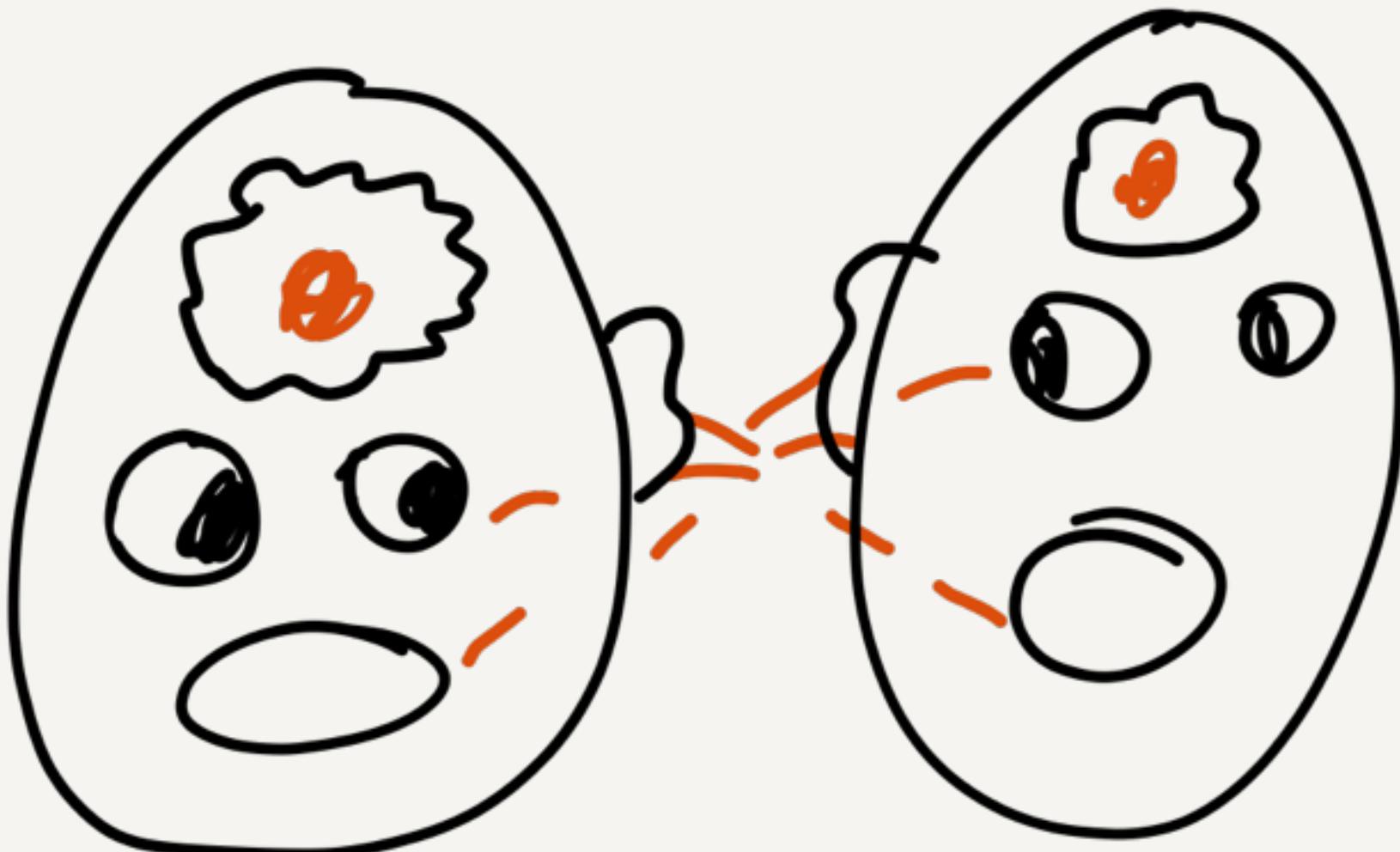


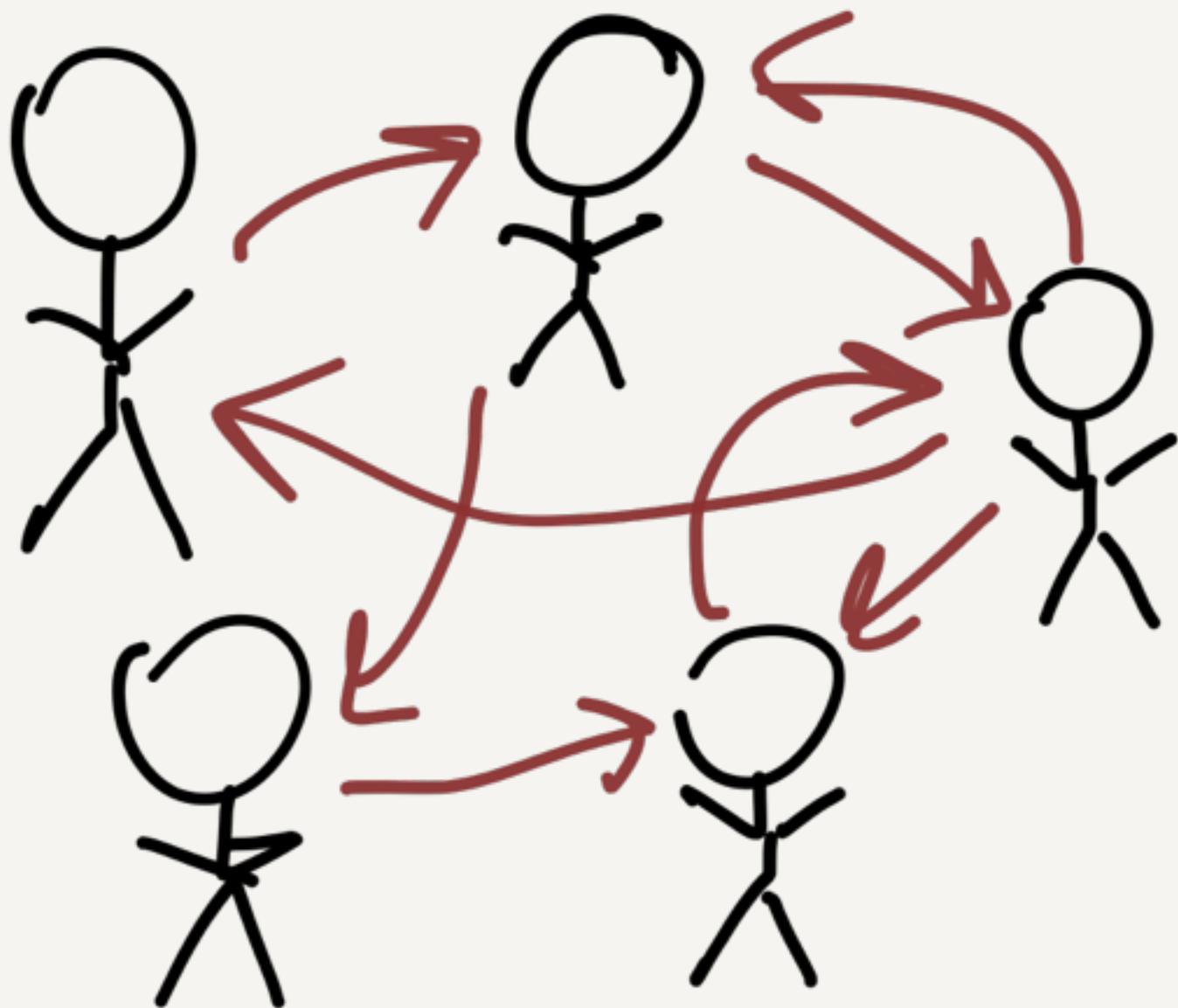


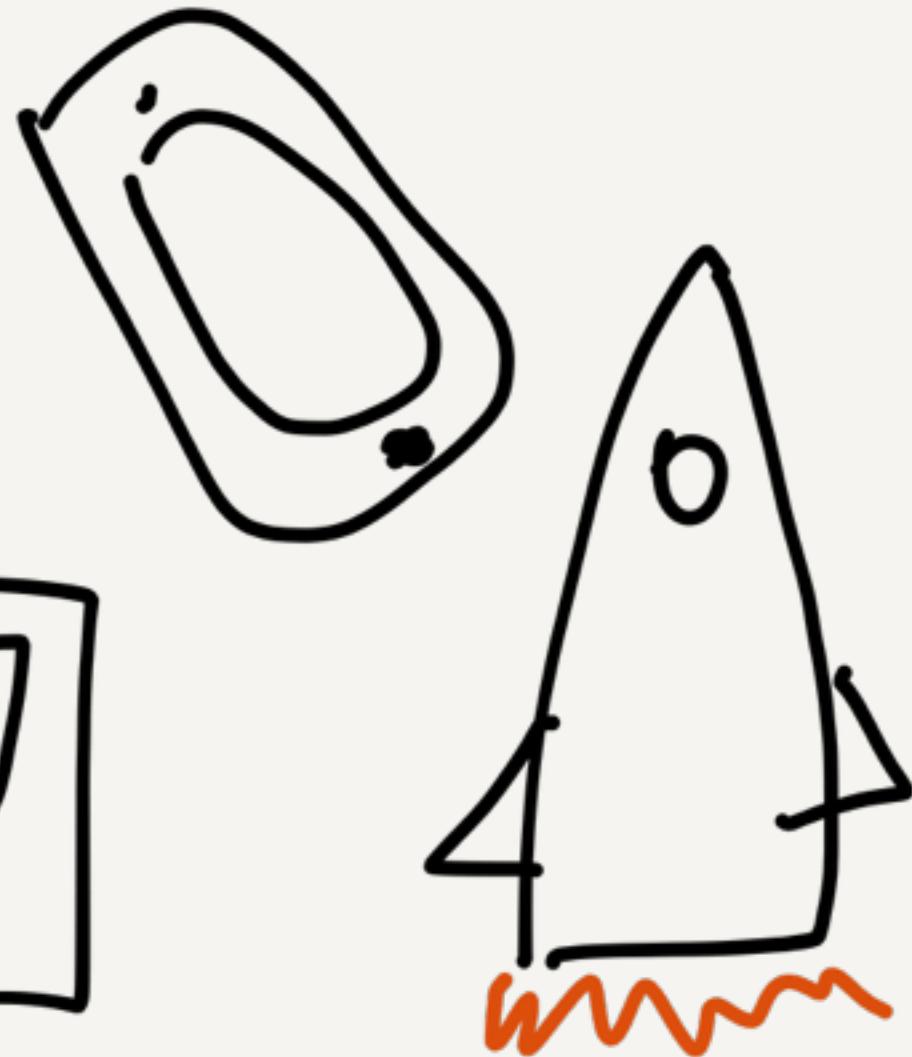




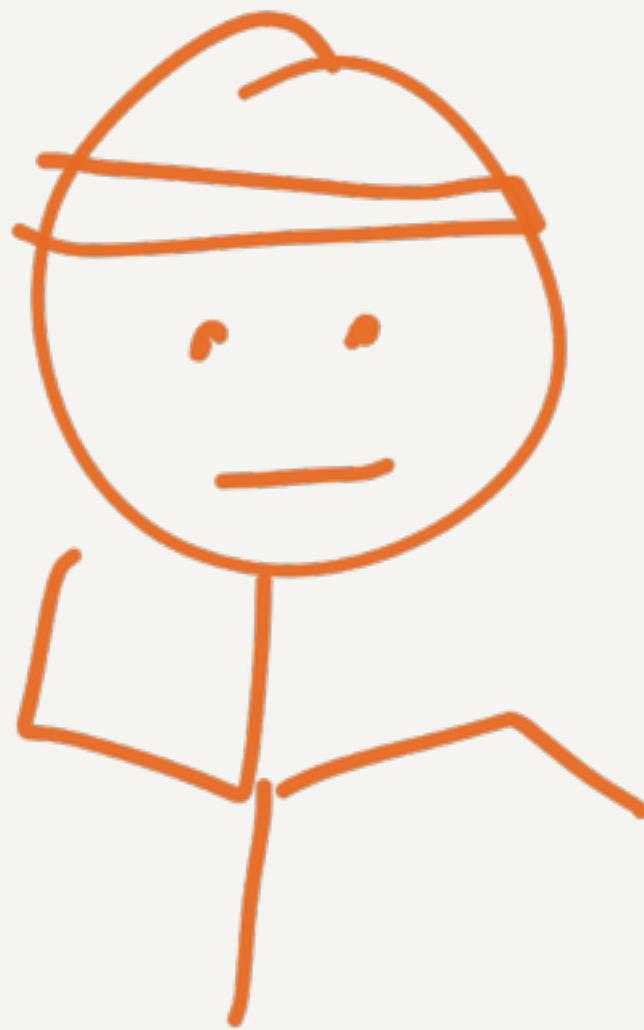


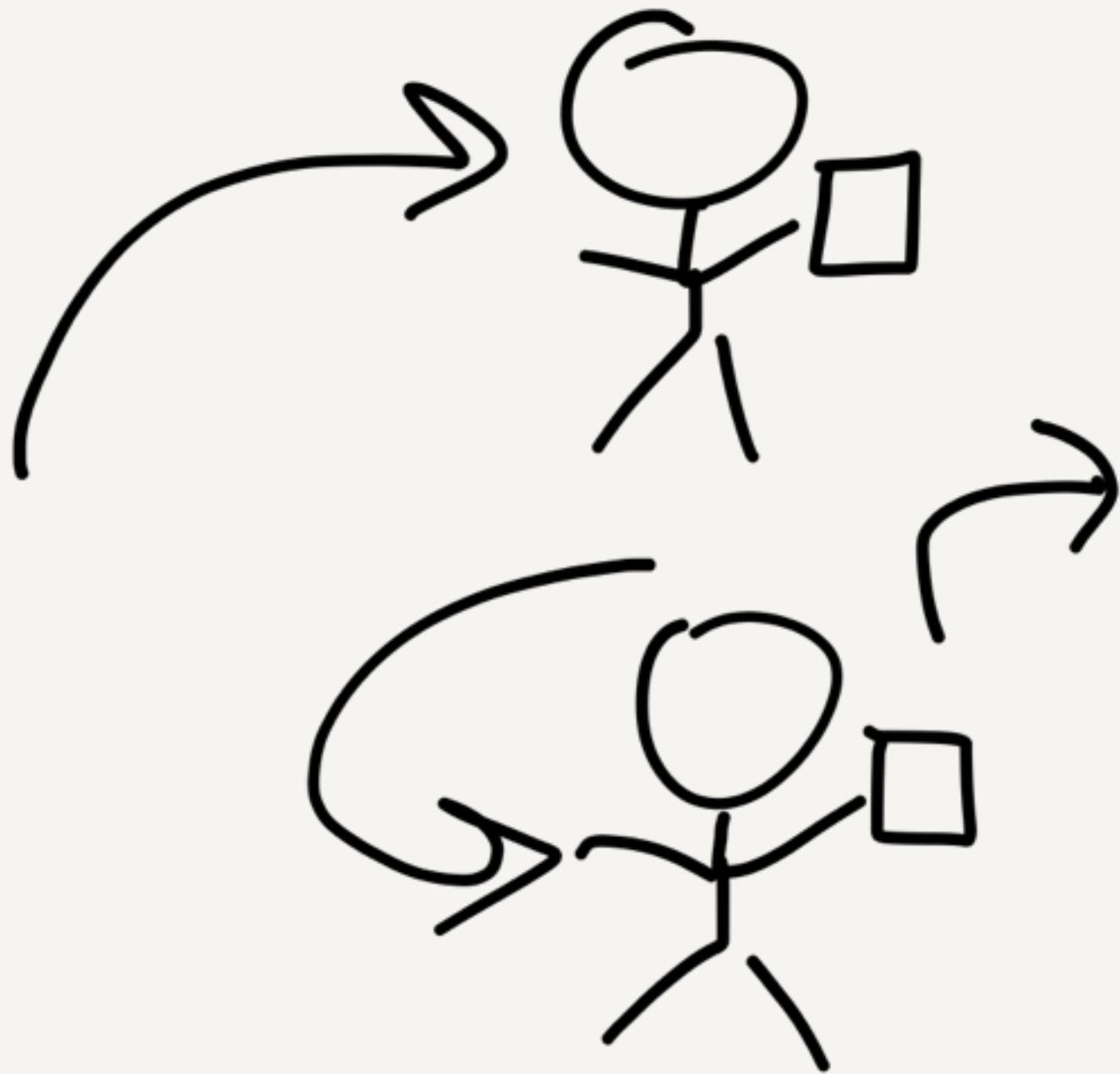
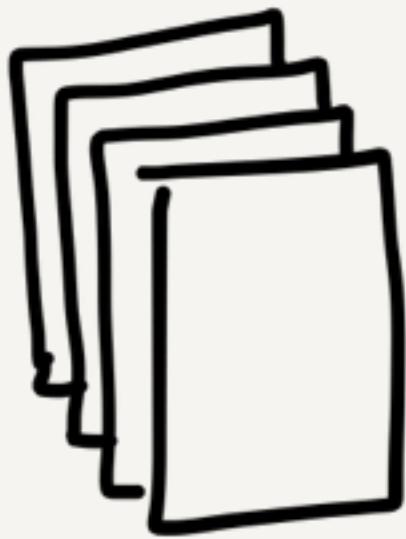


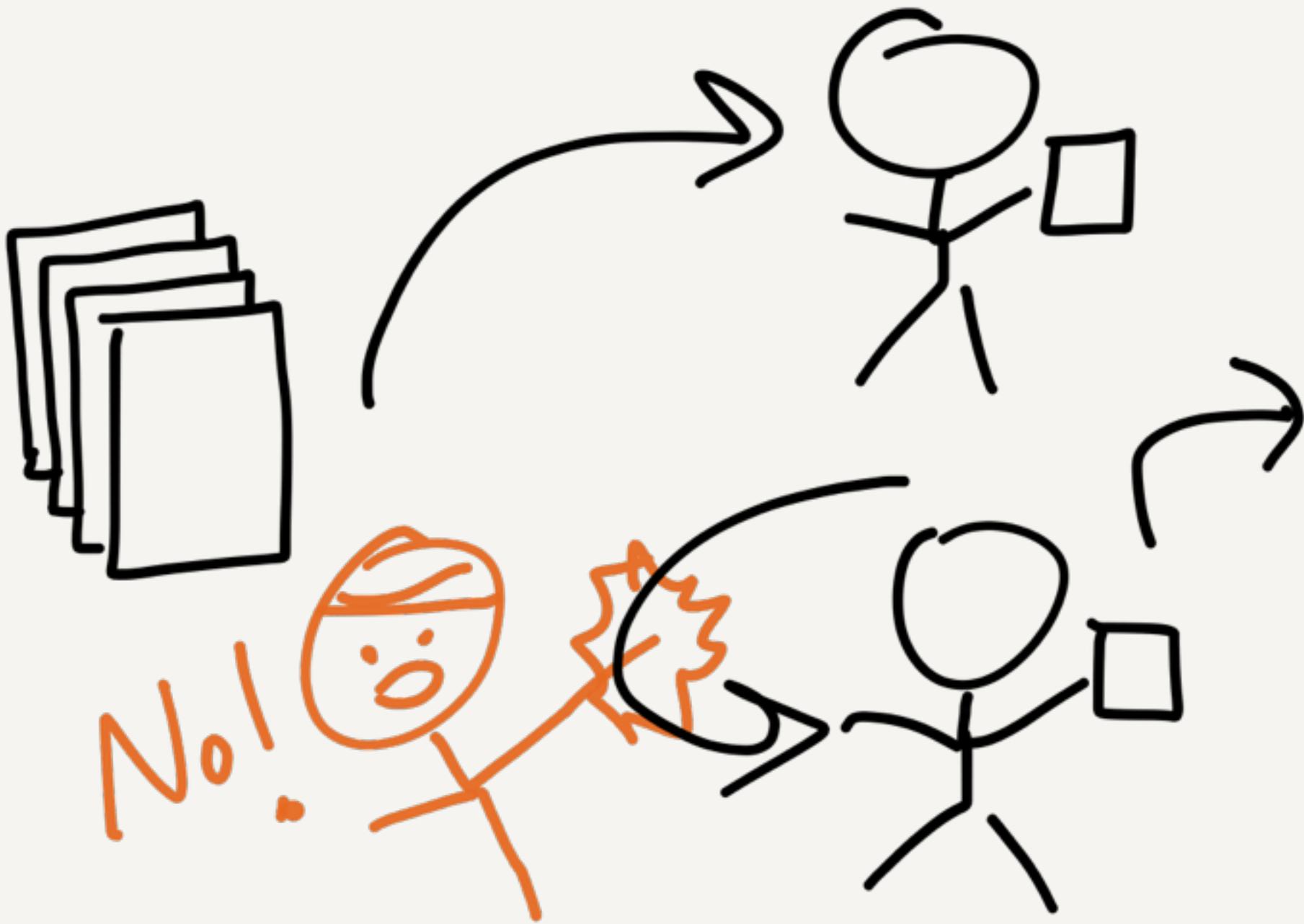


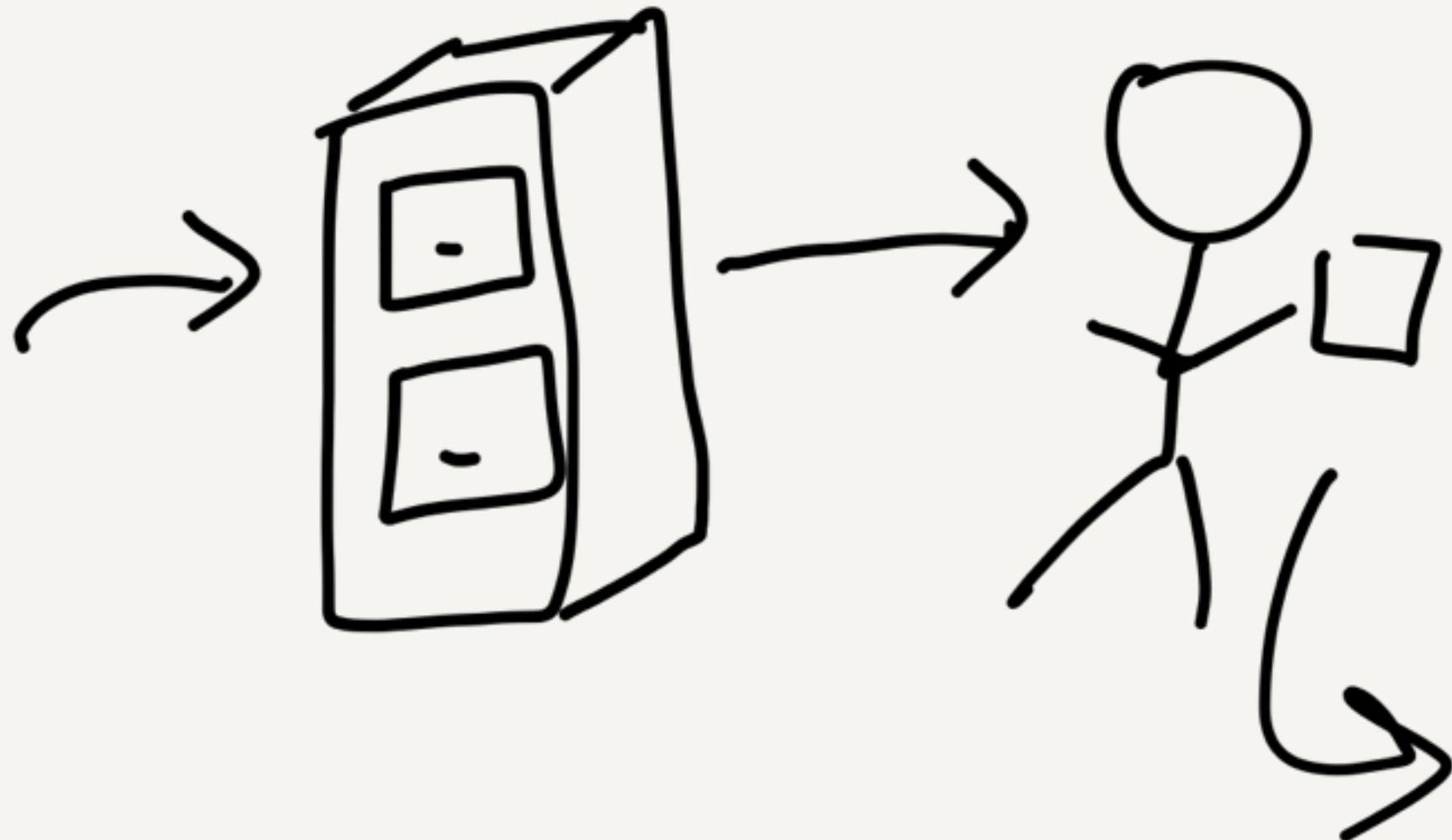


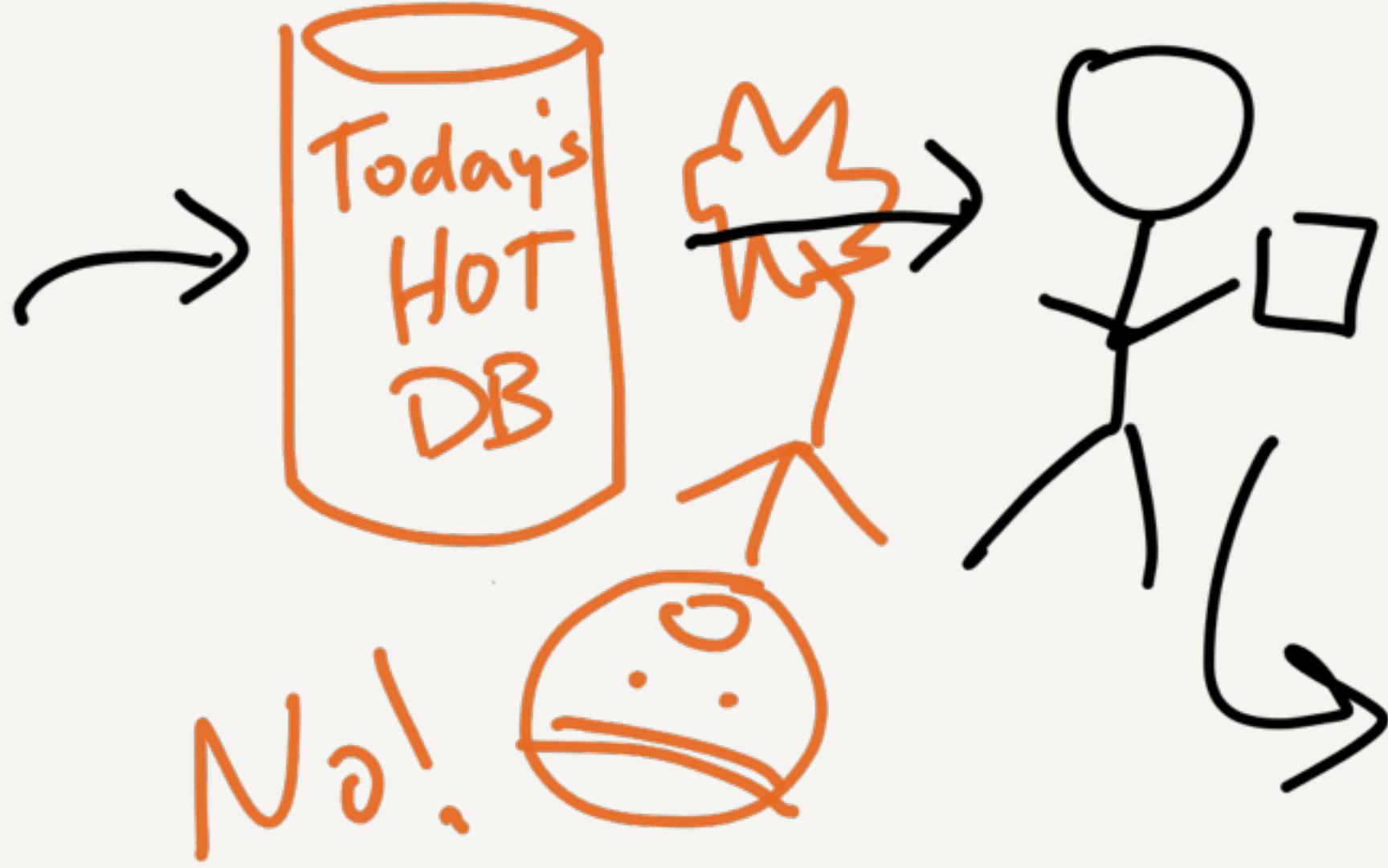
Enter  
the  
Dev

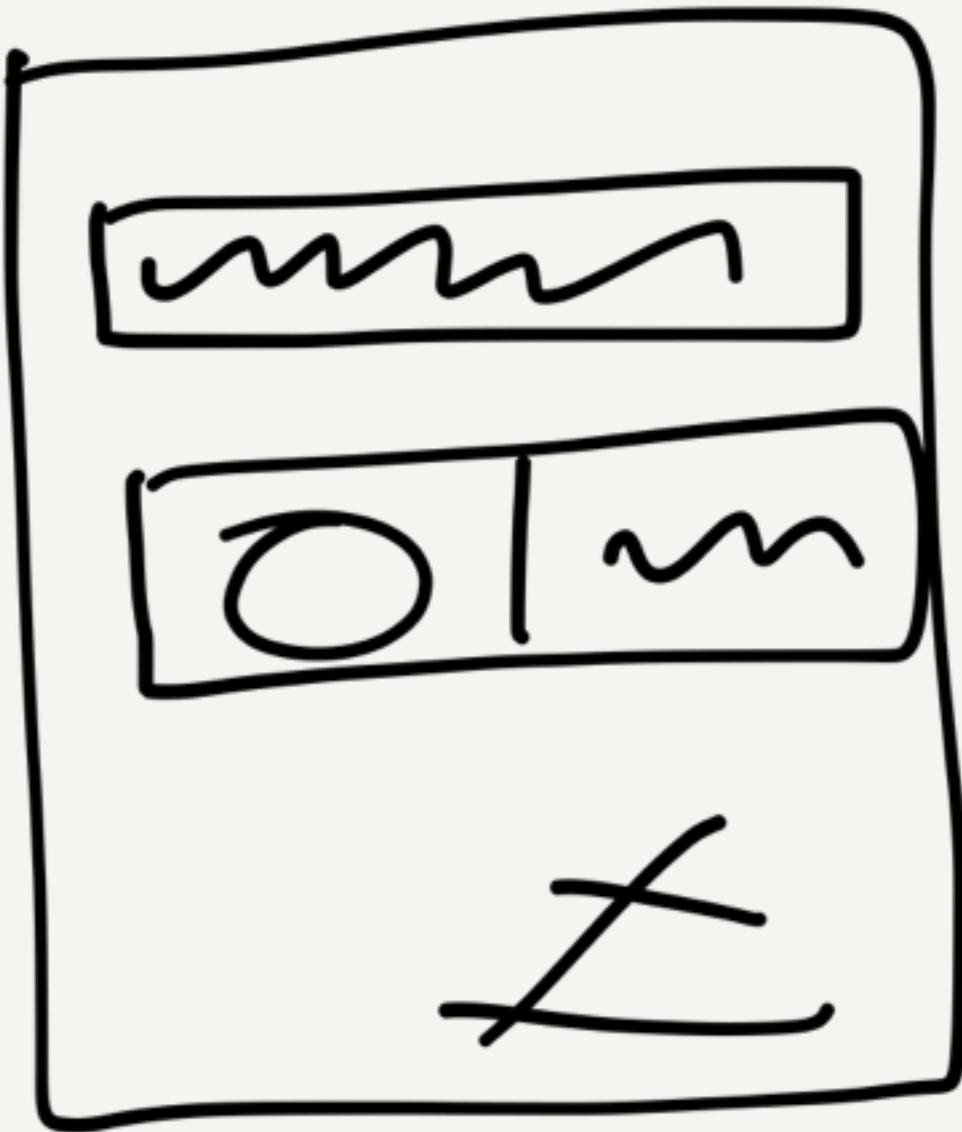


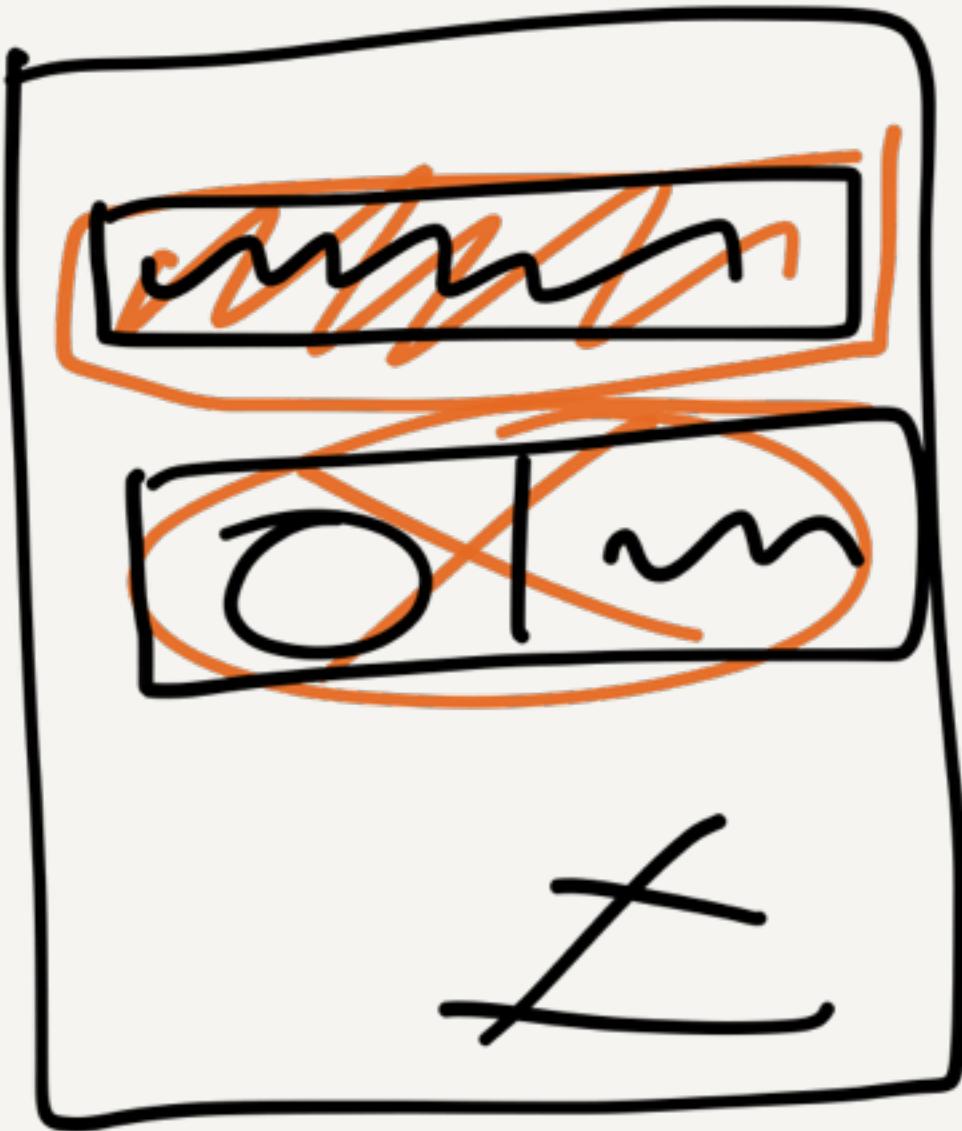


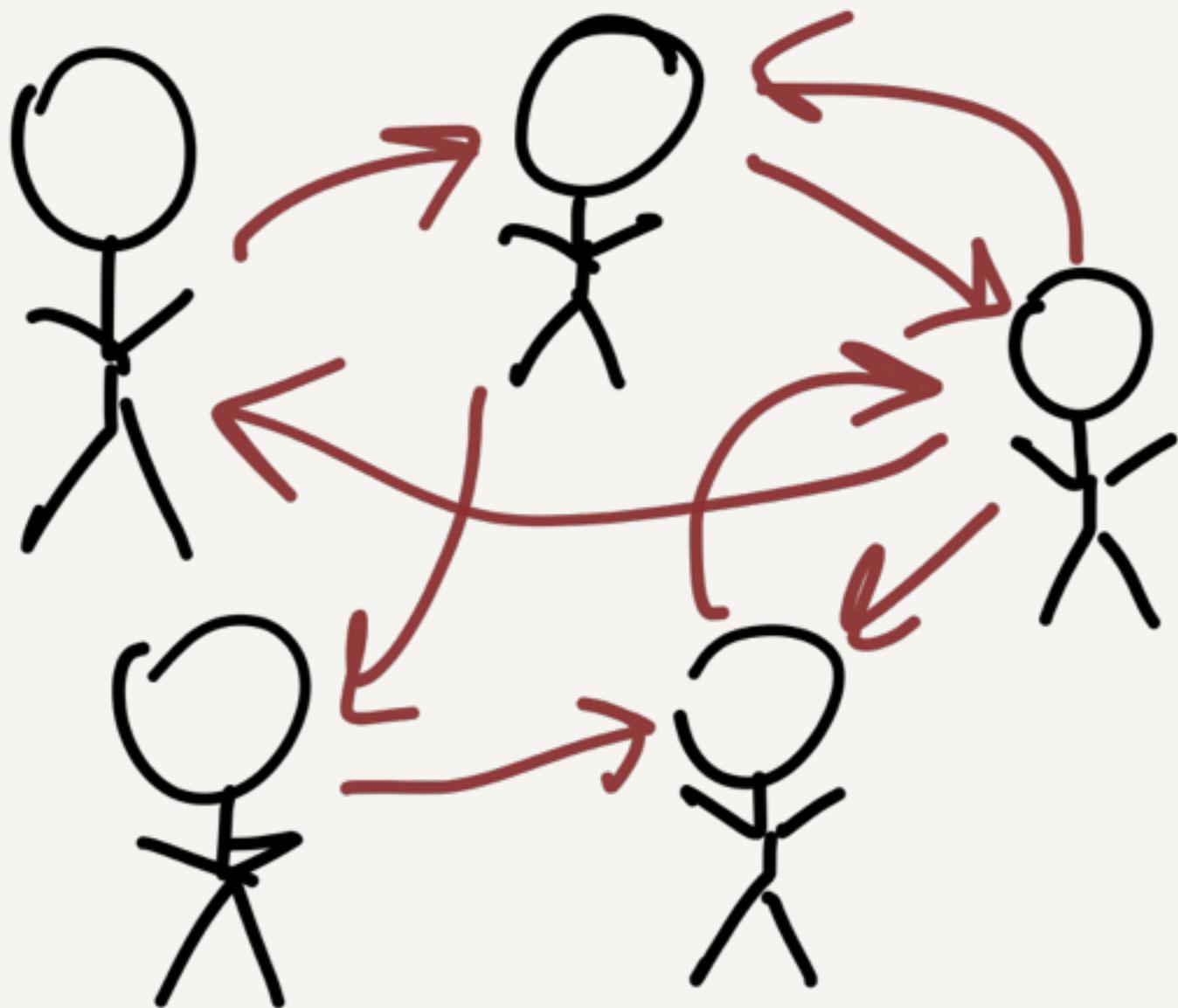


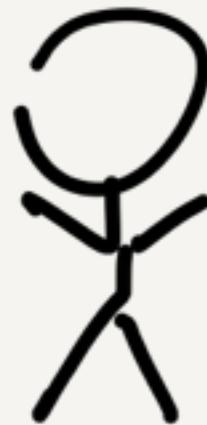
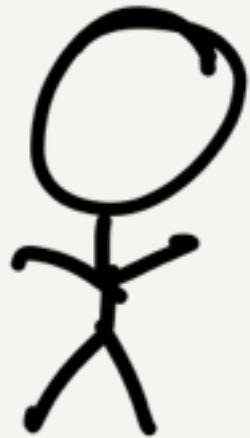
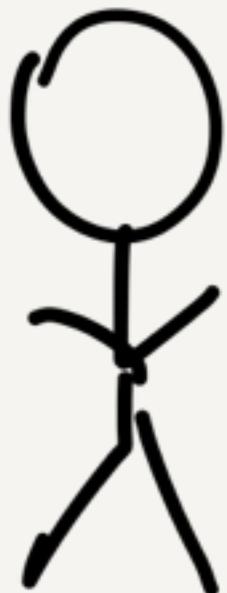




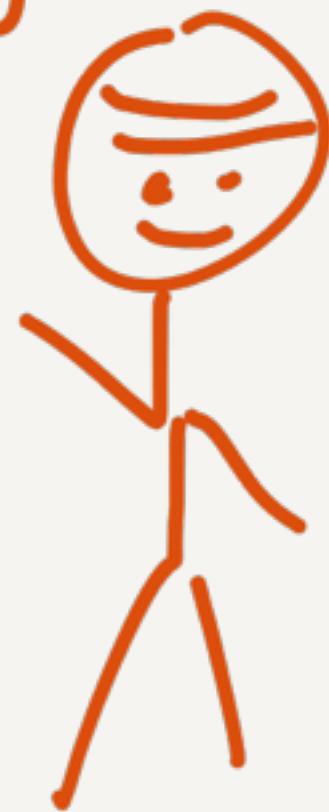








Do it  
THIS WAY!



# Person

first\_name \*

last\_name \*

email \*

phone

# Person

/new

first\_name \*

last\_name \*

email \*

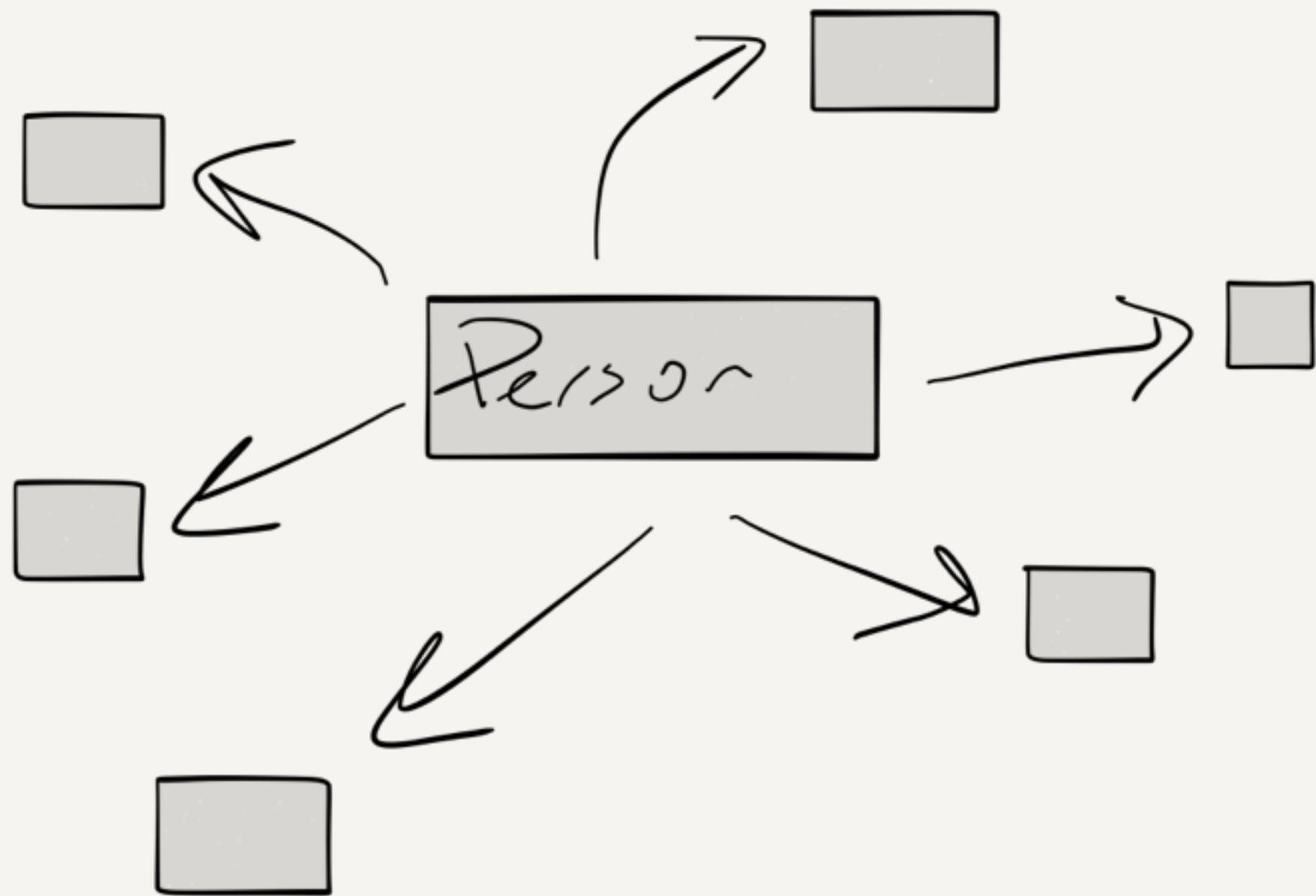
phone

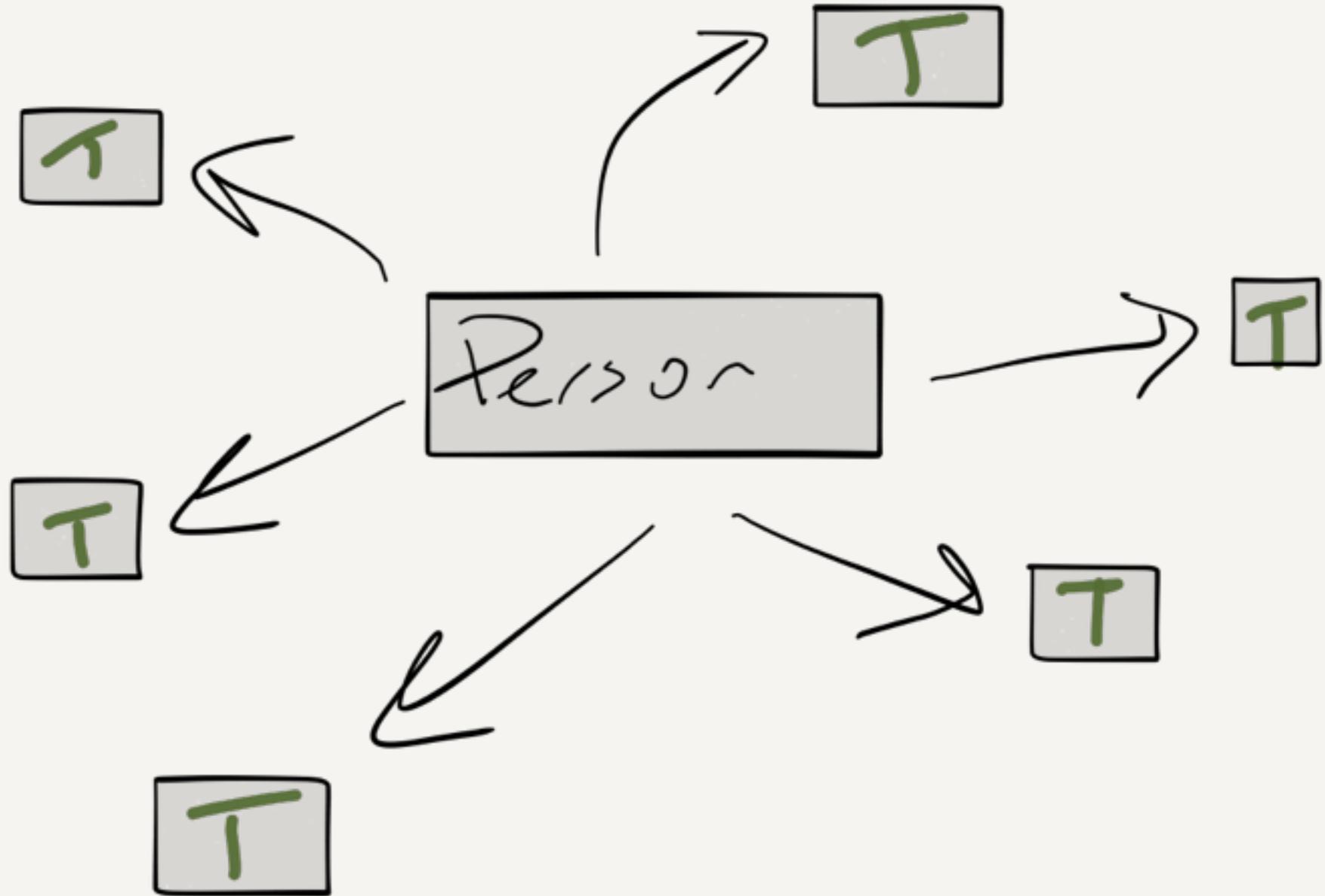
f:

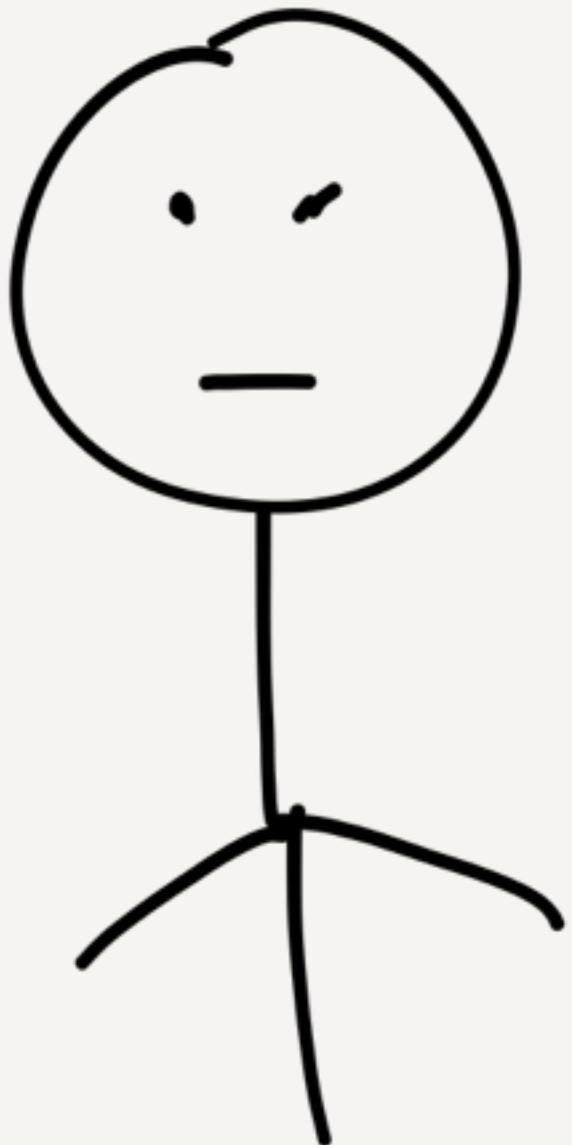
l:

e:

p:







We need  
phone  
numbers.

# Person

first\_name \*

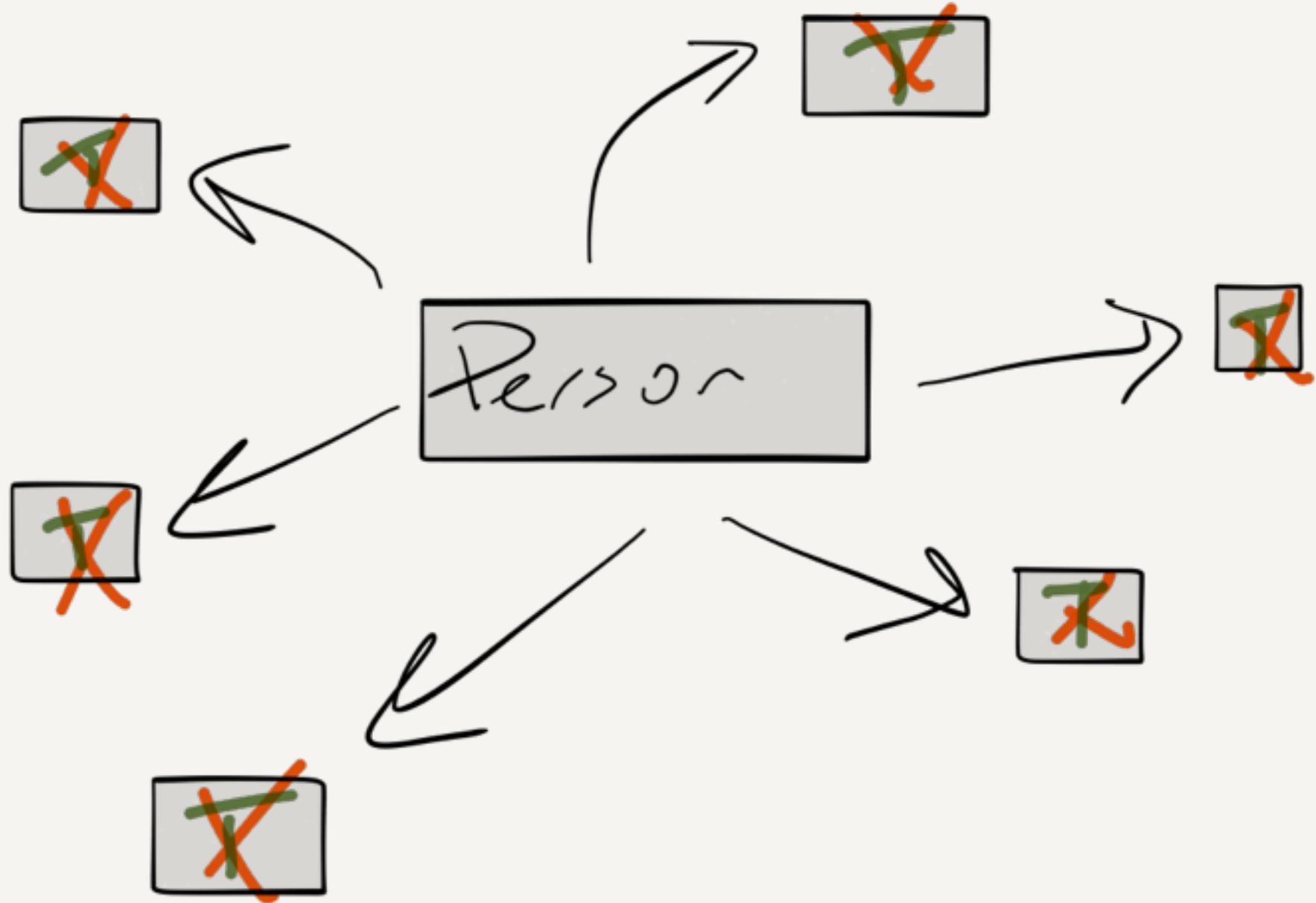
last\_name \*

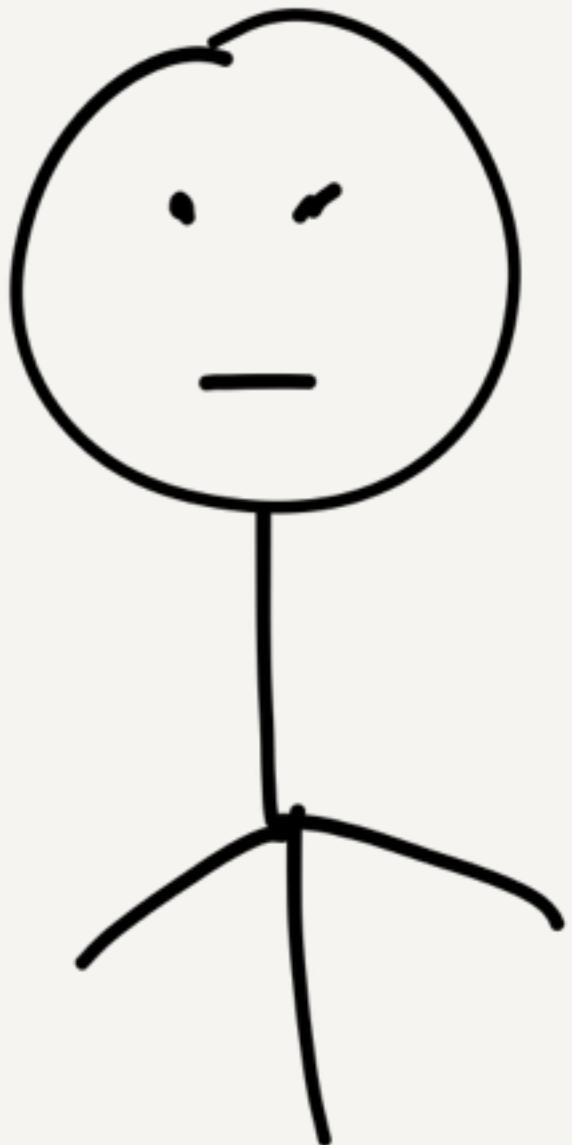
email \*

phone \*

/new

f:	<input type="text"/>
l:	<input type="text"/>
e:	<input type="text"/>
p:	<input type="text"/>





We need  
phone  
numbers.

# Person

first\_name

last\_name

email

phone

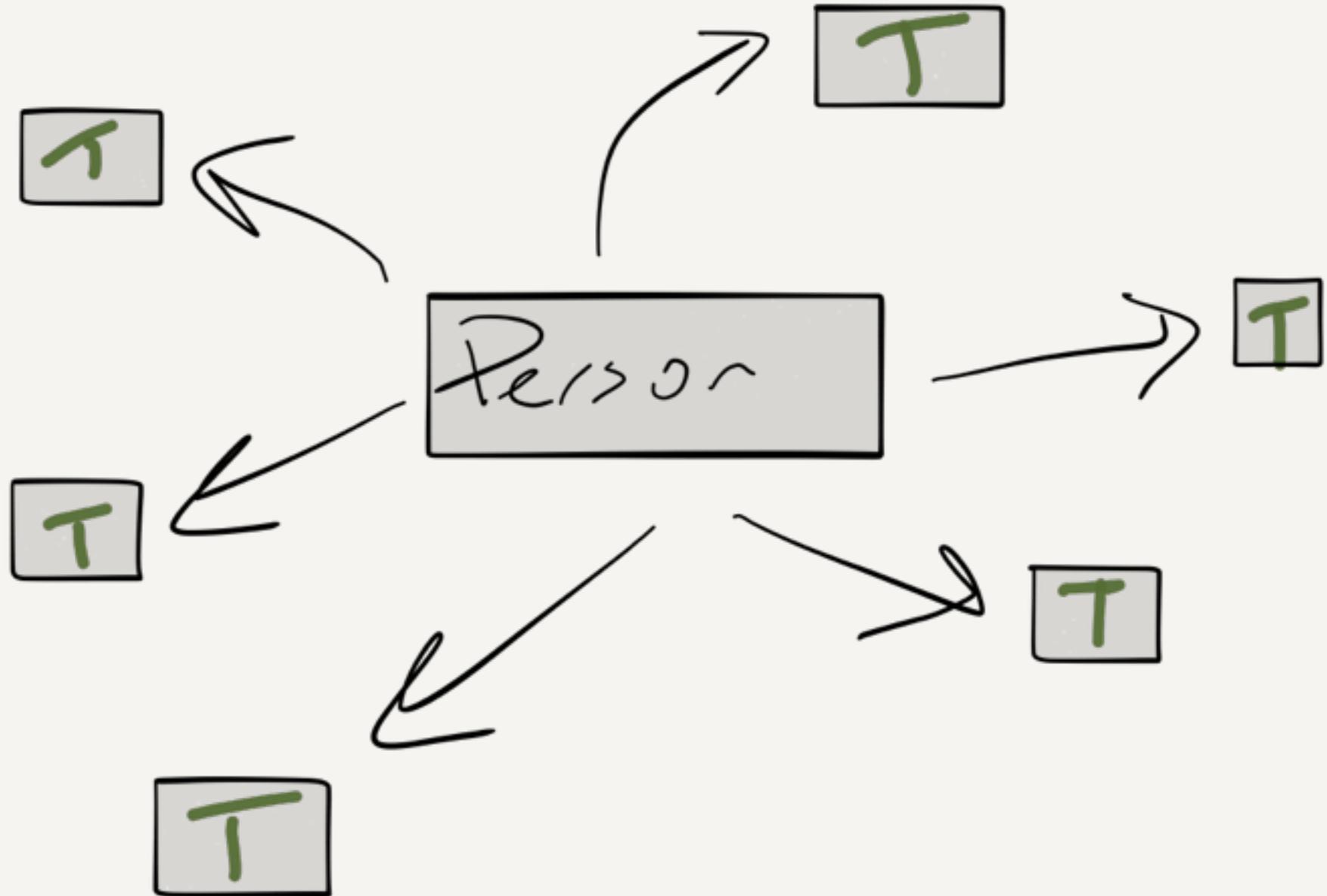
/new

f:

l:

e:

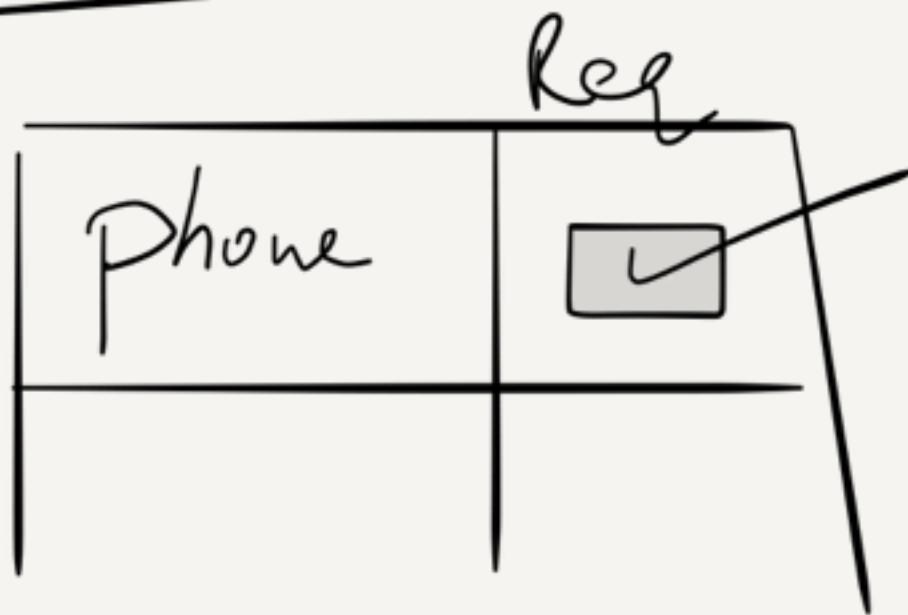
p:



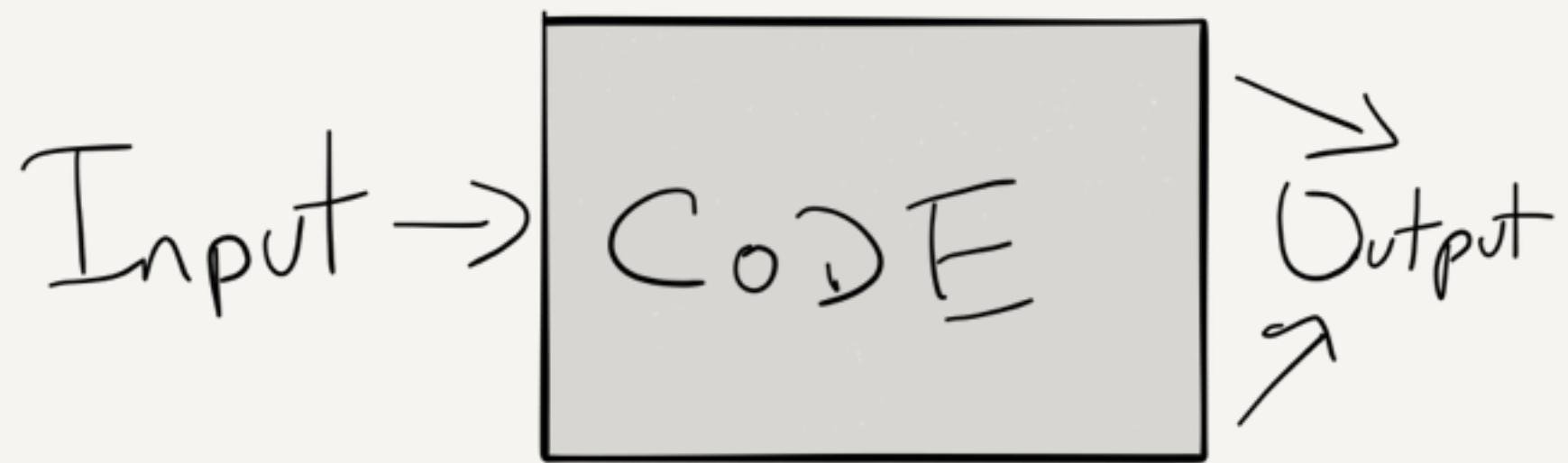
Class P < ActiveRecordBase

validates :phone

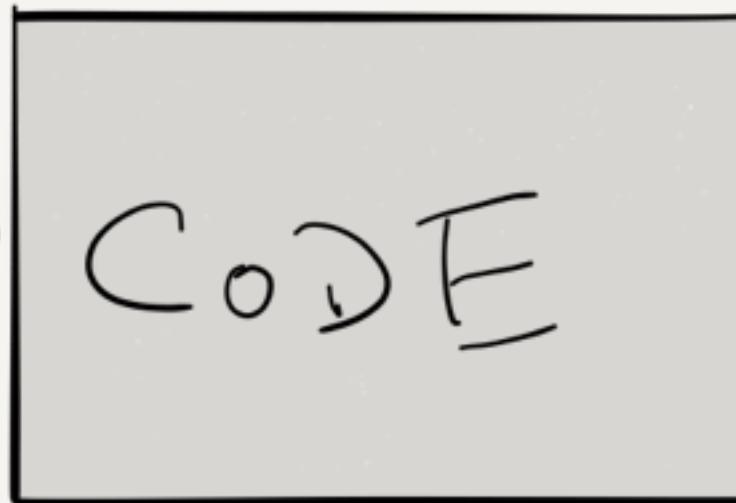
end



- 1.) We make mistakes.
- 2.) Computers fail.
- 3.) Process!



~~Input~~ →



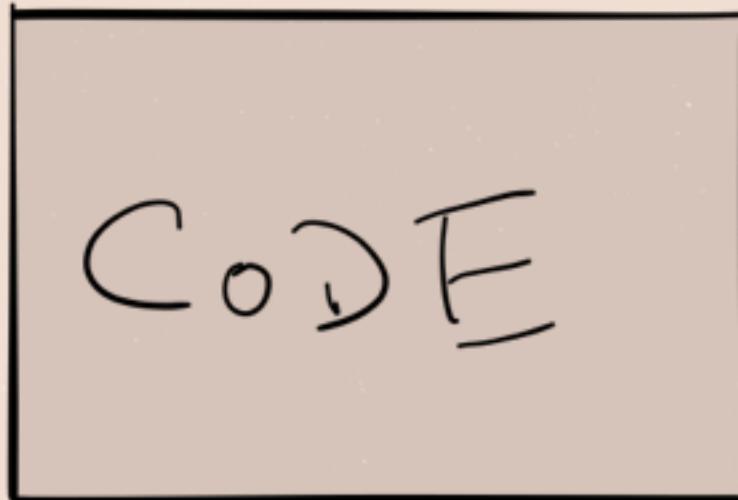
→ ~~Output~~

Business

Business

Business

~~Input~~ →



→ ~~Output~~

Business

Business

Darren  
Caughon

darrenCaughon@A