

Devour the Cloud

Do you have an AWS Account?



Nick Barendt

@nickbarendt

nick@barendt.com

codemash

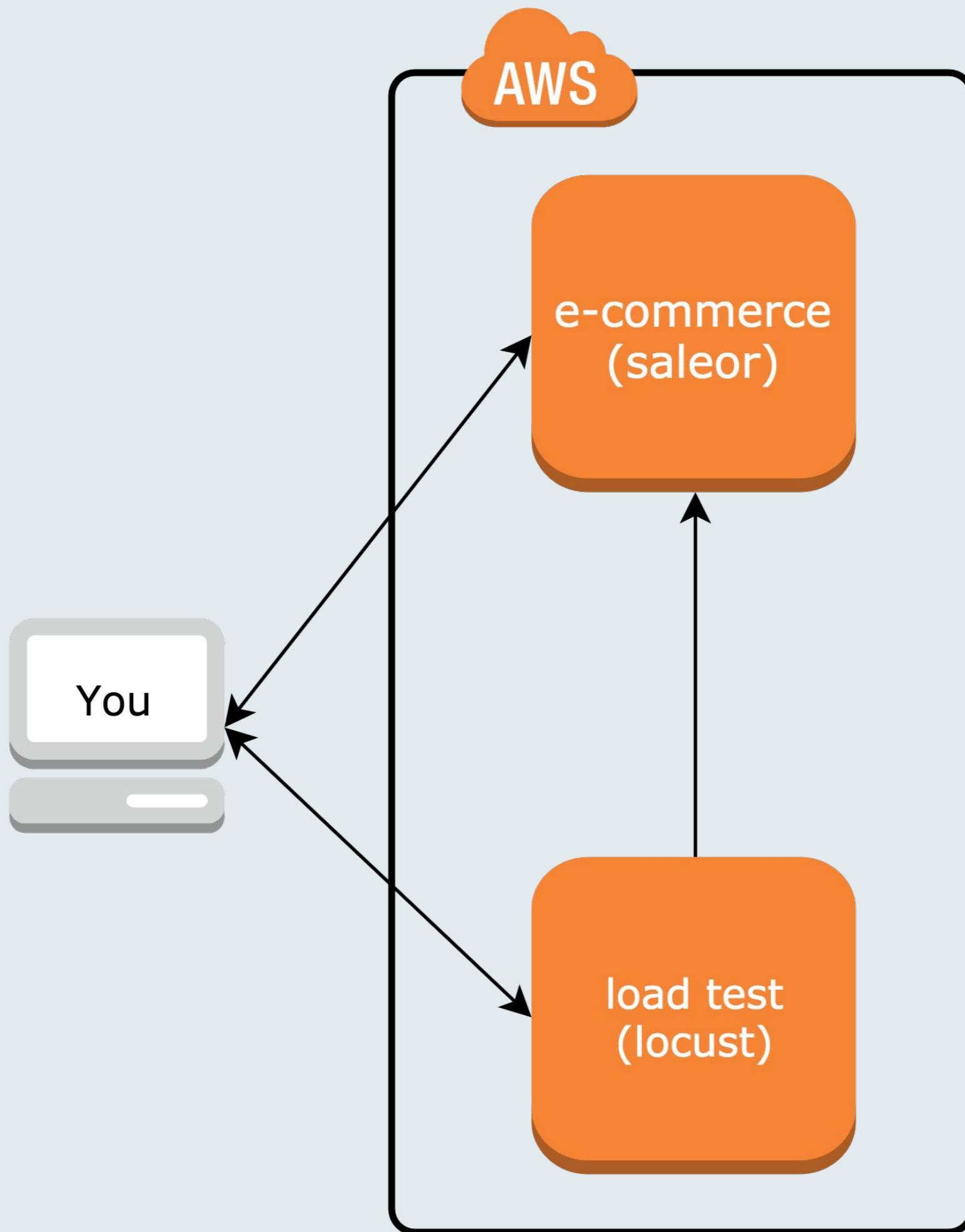


Steve Jackson

@stevejxsn

steve@testdouble.com

#devour-the-cloud



Setup AMIs

<http://bit.do/devour-aws>

AMIs

Saleor

ami-da98c7a0

Locust

ami-a59bc4df

You can also search for “CM2018”

If you leave early....

Remember to
stop/terminate your
AWS instances!

Explore Saleor

(our system under test today)

What is Load Testing?

It's often pictured this way...





What is Load Testing?

Load Testing simulates the experience of “many” concurrent users

Load Testing is not about optimizing the per user experience



Most test tools are bad at



Assets



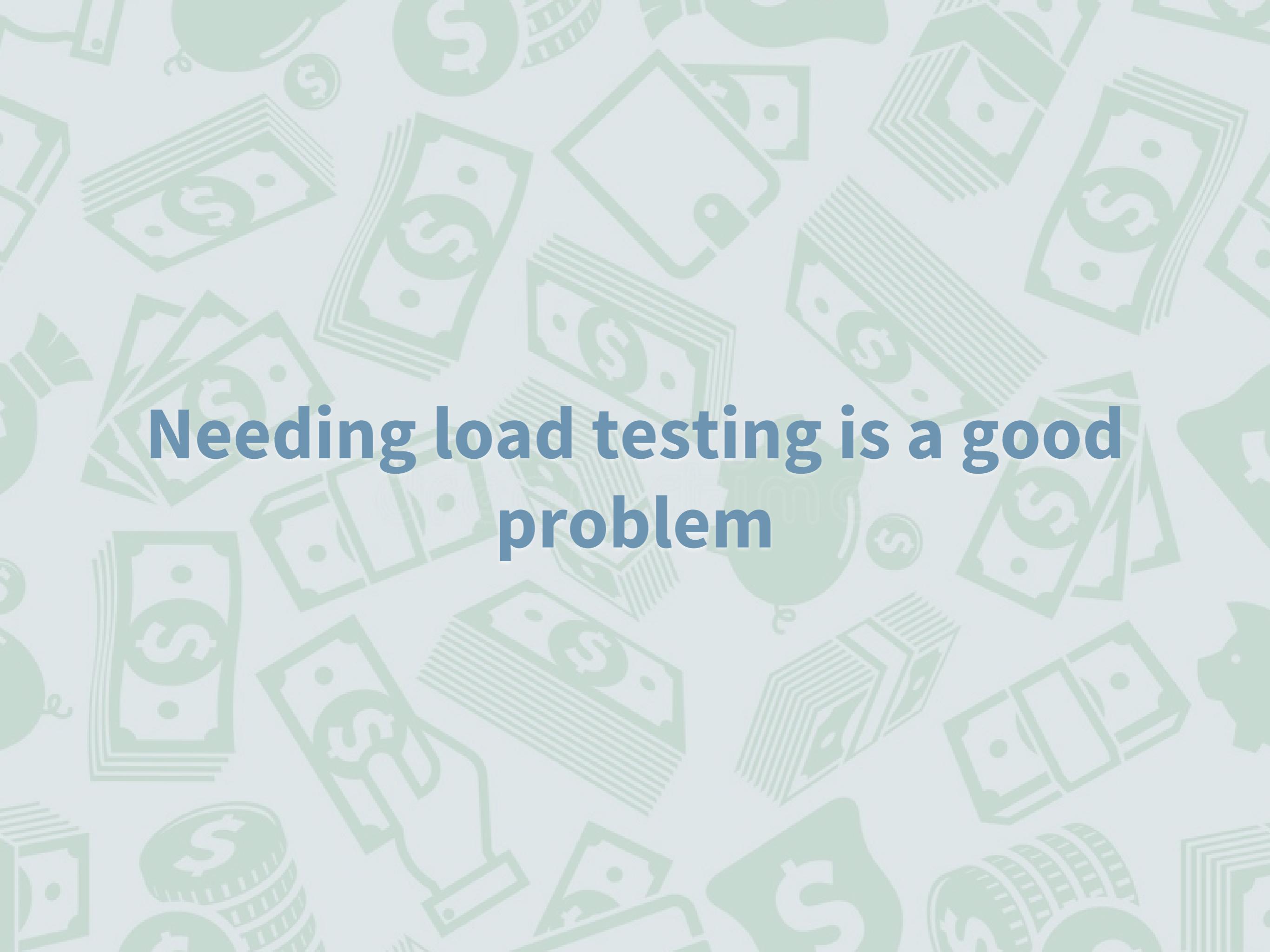
Javascript







Yellow Lab  Tools



Needing load testing is a good
problem

It's not hard....

Resource
Planning

Performance
Regressions

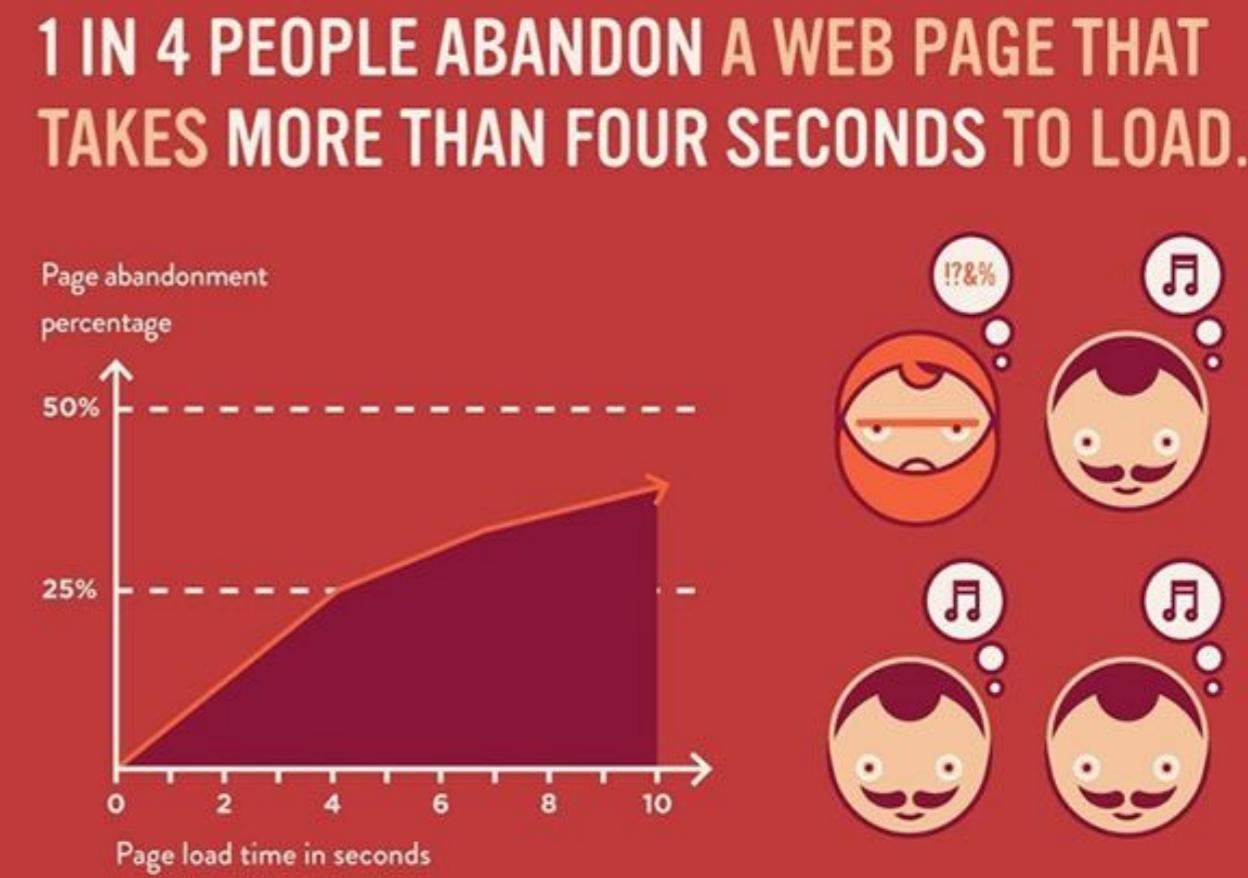
Architecture
Changes

Ok, so what are we
focusing on?

Key Question: How many users can I have on my site before things break?



Key Question: How many users can I add before performance becomes unacceptable?



**ONLY THOSE WHO WILL
RISK GOING TOO FAR
CAN POSSIBLY FIND OUT
HOW FAR ONE CAN GO.**



T.S. ELIOT



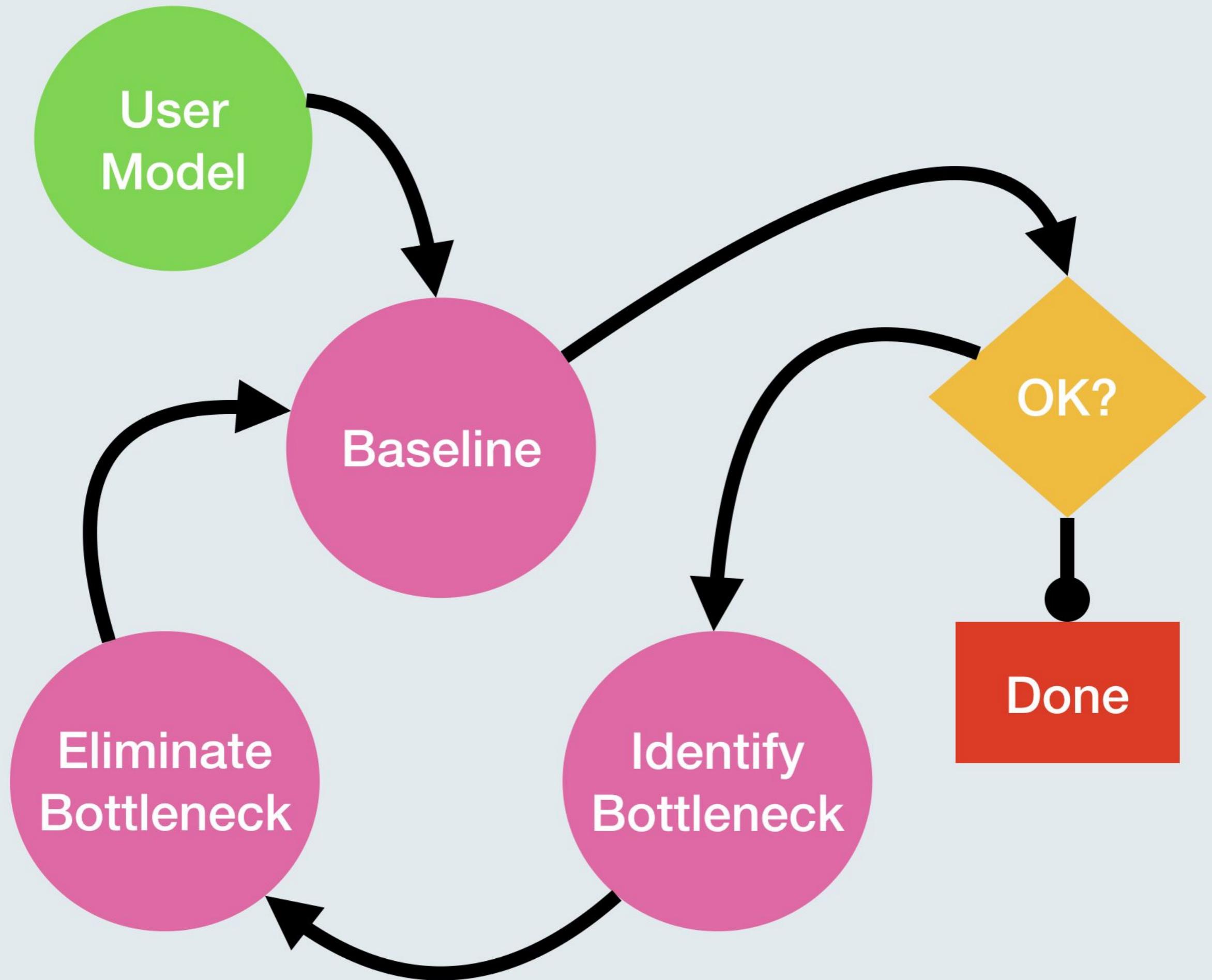


Close Enough



It's About Tradeoffs





Why Locust?

Simple

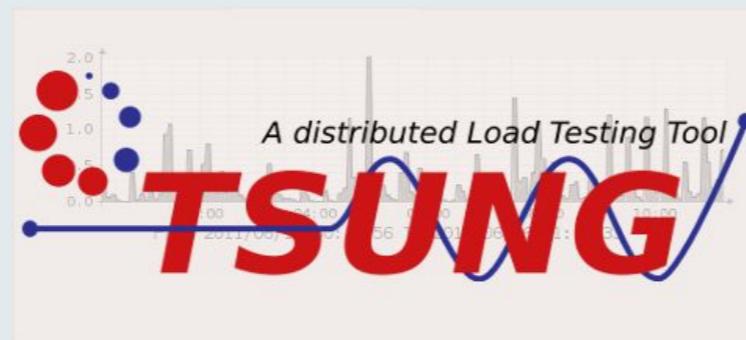


JoeDog / siege



When will this endpoint fall over?

Record/Playback



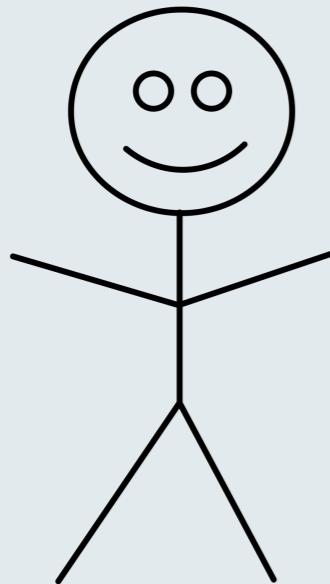
Easy to get Started

Programmatic



Simple -> Complex

DSL

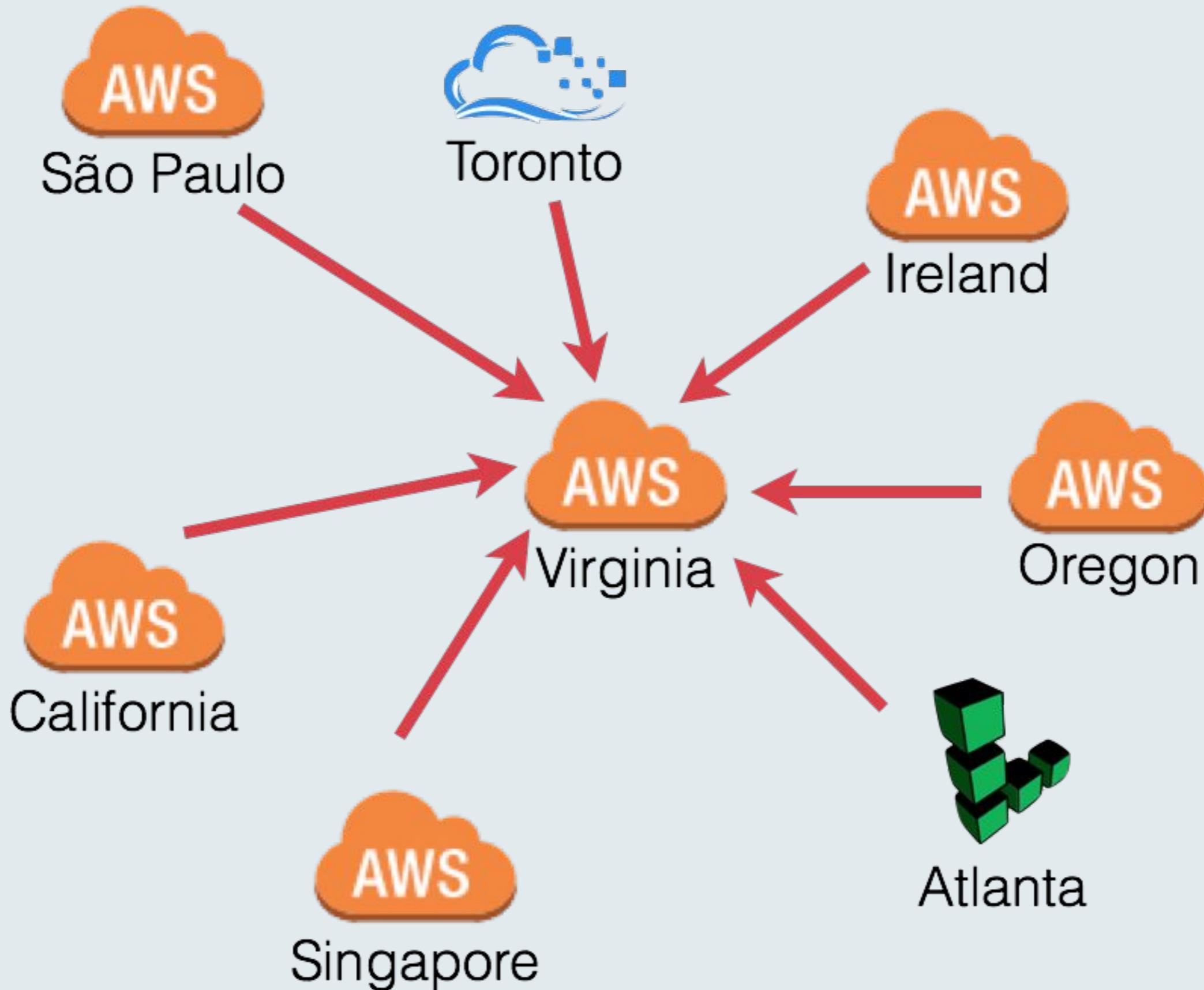


```
@task  
def index(self):  
    self.client.get("/")  
  
@task  
def about(self):  
    self.client.get("/about/")
```

A close-up photograph of a lizard's skin, likely a gecko, showing a pattern of small, rounded, light-colored tubercles or scales arranged in horizontal rows. The background is a mottled green and brown.

Scales Horizontally

Scales Horizontally



@kumichou

São Paulo

Toronto

AWS
California

AWS
Oregon

Atlanta

Singapore



Simple Web UI



STATUS
RUNNING
9600 users
[Edit](#)

SLAVES
6

RPS
76.4

FAILURES
0%



[Reset Stats](#)

[Statistics](#) [Failures](#) [Exceptions](#)

Type	Name	# requests	# fails	Median	Average	Min	Max	Content Size	# reqs/sec
GET	/	1831	0	21	21	4	38	19947	18.3
GET	/blog	608	0	25	26	3	49	19841	6.9
GET	/blog/[post-slug]	612	0	14	15	2	27	19858	7.8
GET	/forum	573	0	26	26	3	49	20209	5.5
GET	/forum/[thread-slug]	596	0	30	30	6	55	20209	5.3
POST	/forum/[thread-slug]	71	0	62	63	13	120	11188	0.6
POST	/forum/new	64	0	59	58	6	108	3272	0.7
GET	/signin	3439	0	26	26	3	49	19850	31.3
Total		7794	0	26	25	2	120	19711	76.4

[Download request statistics CSV](#)

[Download response time distribution CSV](#)



User Signup

<http://bit.do/devour-signup>

Buy!

<http://bit.do/devour-buy>

User Funnel









Returning Users (20%)

Find

Cart

Buy

100%

80%

75%

New Users (80%)

Visit

Find

Cart

Buy

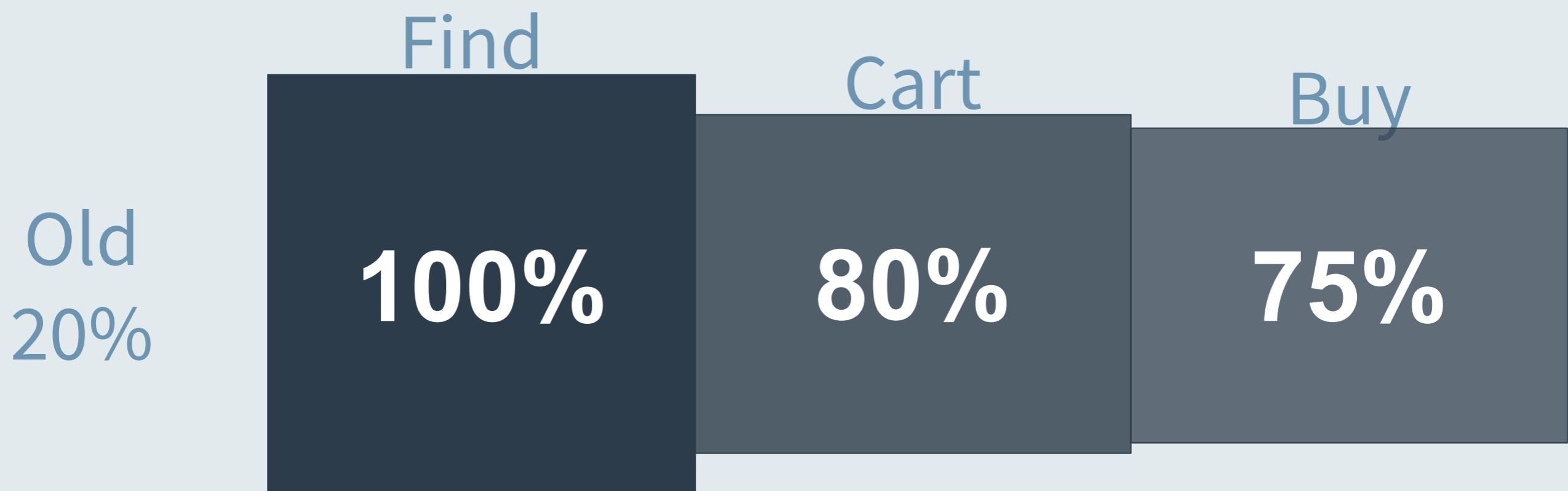
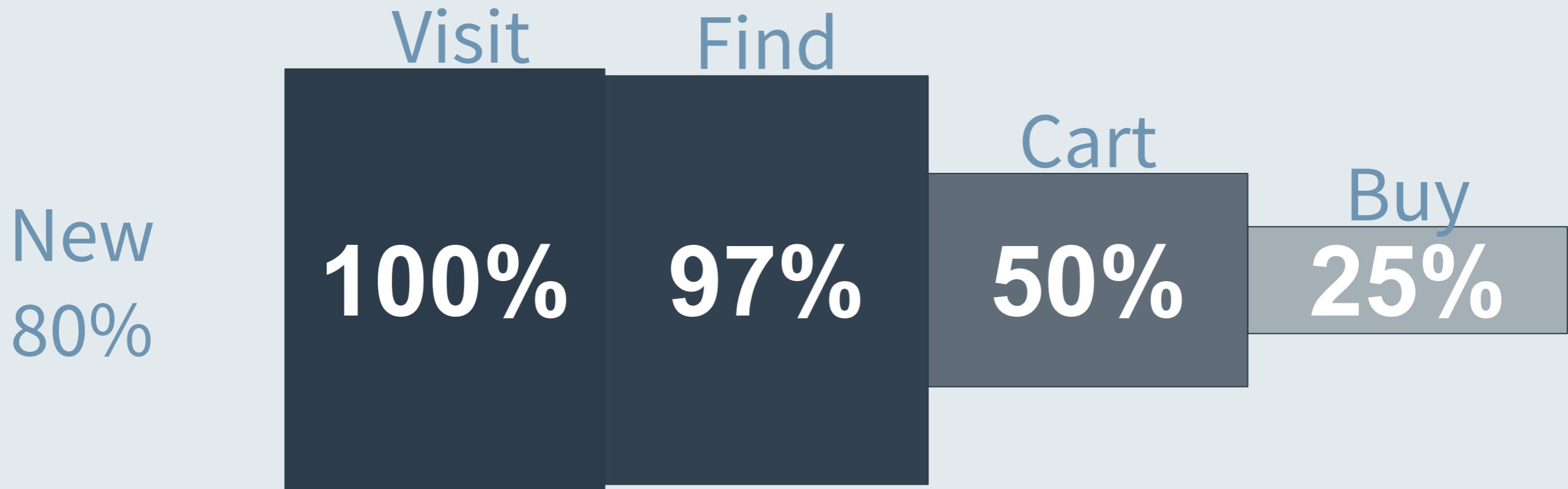
100%

97%

50%

25%

User Funnel



Weigh Tasks

<http://bit.do/devour-funnel>

Find a Baseline



Download from
Dreamstime.com

This watermarked comp image is for previewing purposes only.



ID 53089188

© Wavebreakmedia Ltd | Dreamstime.com

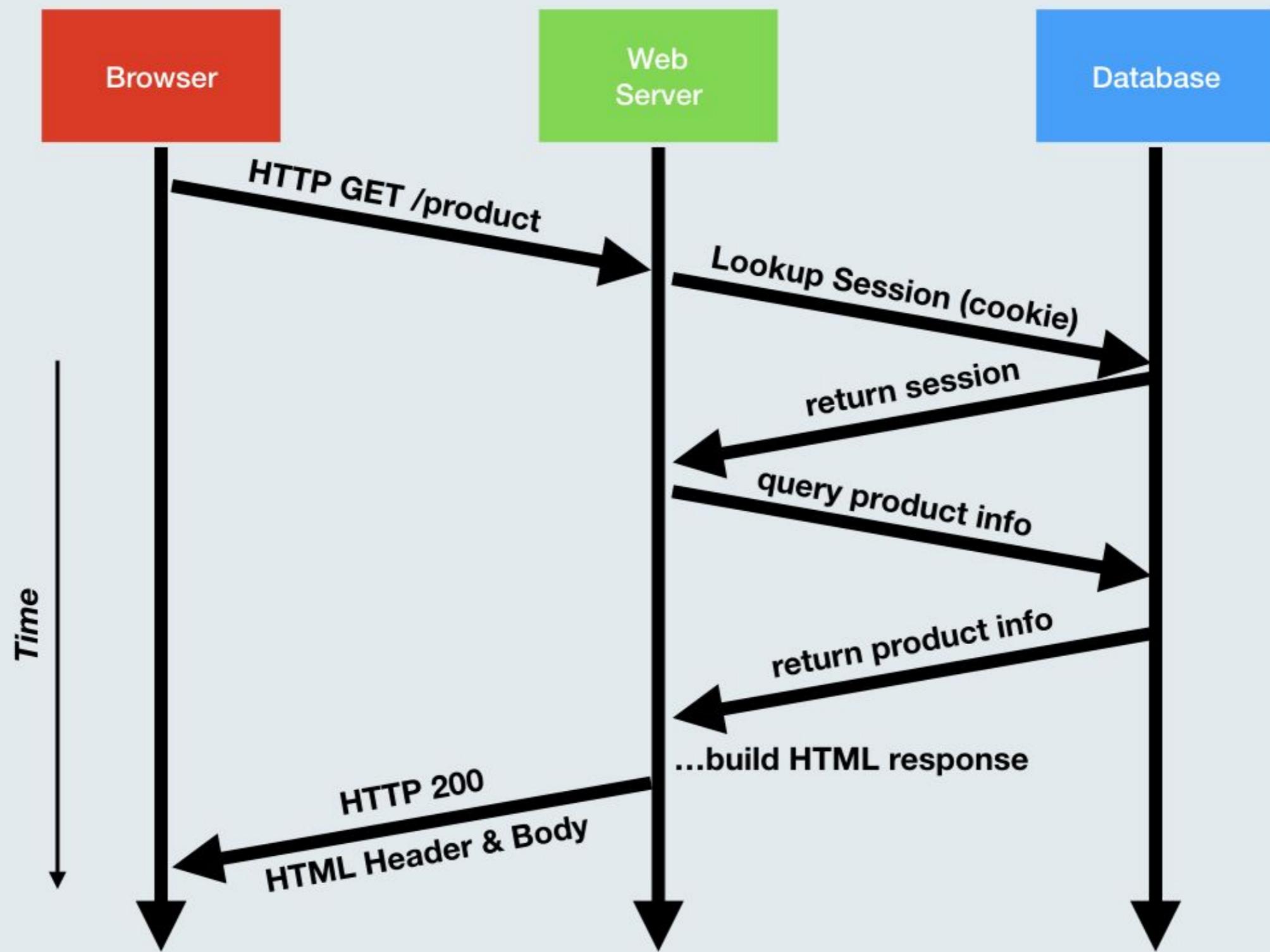
Identify Bottleneck



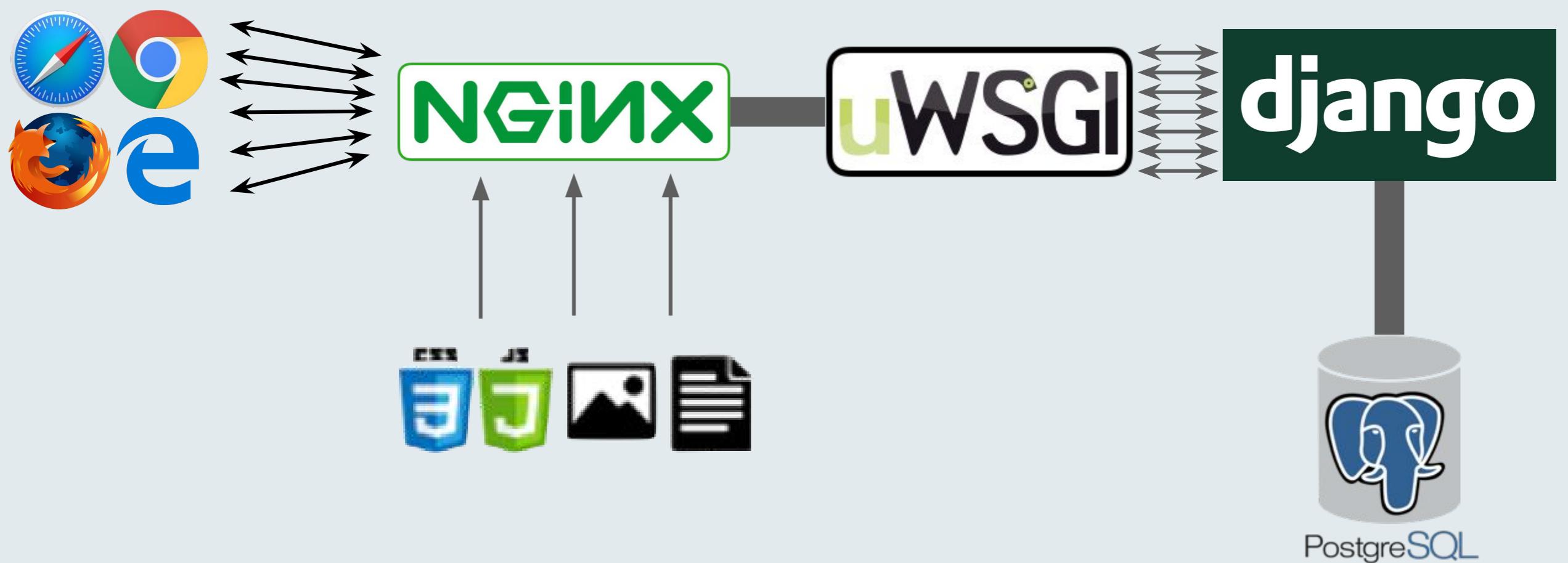
Paolo Maffioletti/Solent News







Saleor Architecture



Eliminate Bottleneck

Database

Index

Laziness

Connection
Pooling



Caching



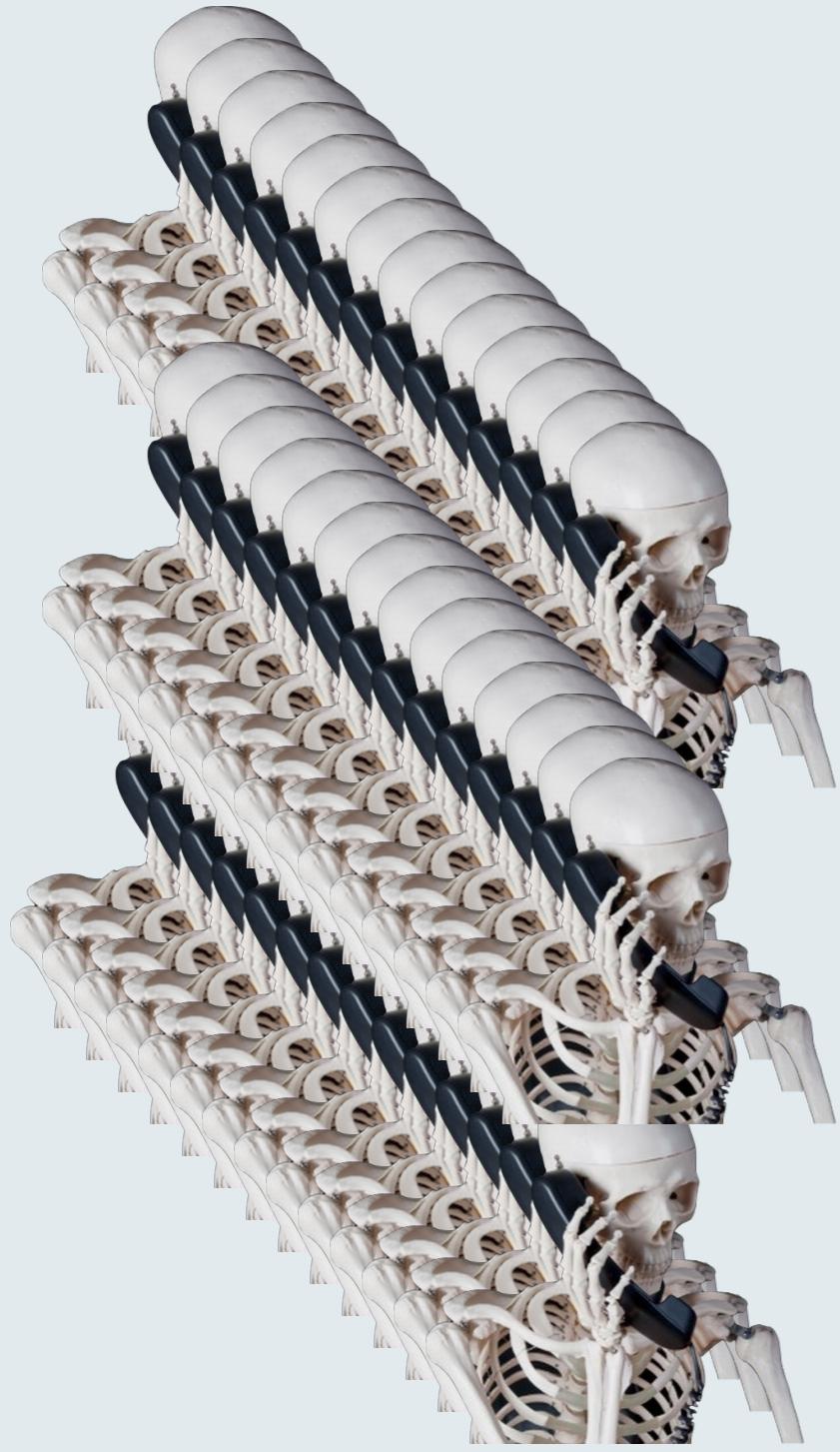
BLAH BLAH
BLAH BLAH...



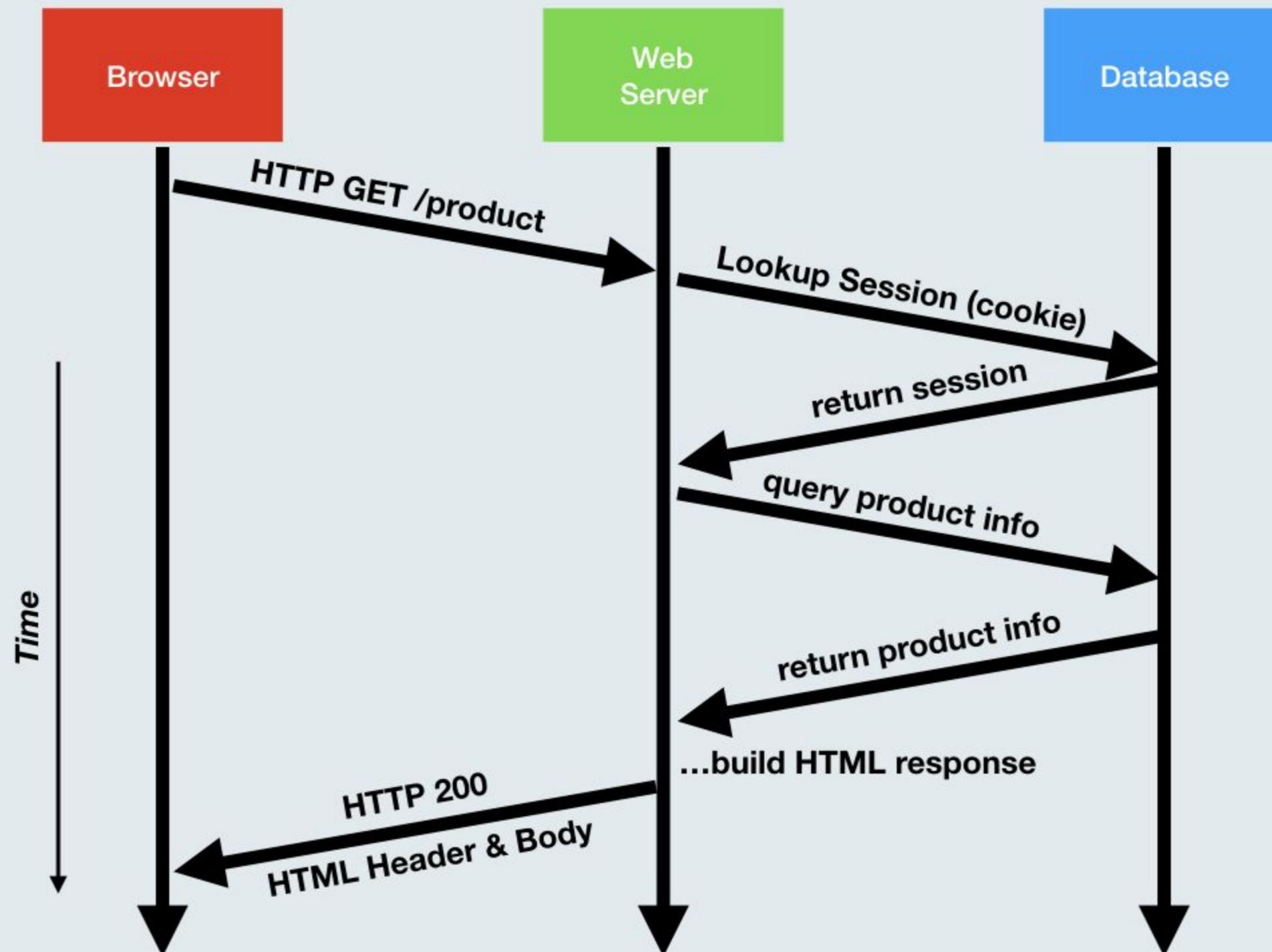
I FEEL LIKE I'VE
HEARD ALL THIS
BEFORE...



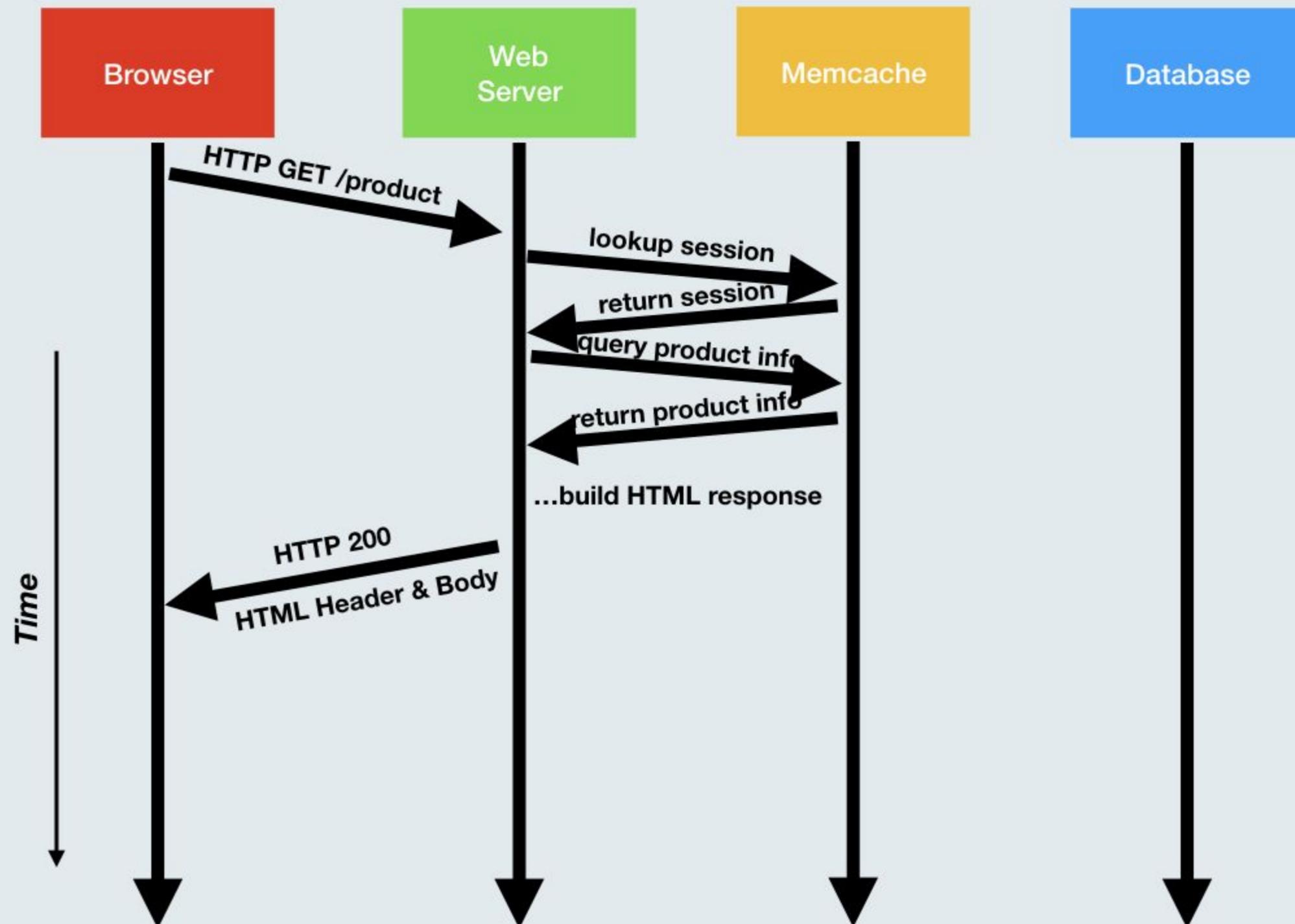
Async



Current Architecture



Architecture with Caching



View Caching

<http://bit.do/devour-caching>

Find new Baseline

Next Steps Choose Your Own Adventure

<http://bit.do/devour-advanced>

The background features a central white circle with a subtle shadow. From behind the text, several thin, curved lines radiate outwards in various colors: blue, grey, red, and pink. Small, semi-transparent confetti pieces in shades of blue, pink, and green are scattered throughout the space.

Thanks!

REMEMBER TO SHUT DOWN
YOUR MACHINES!

@nickbarendt

@stevejxsn