

# *Lecture 3*

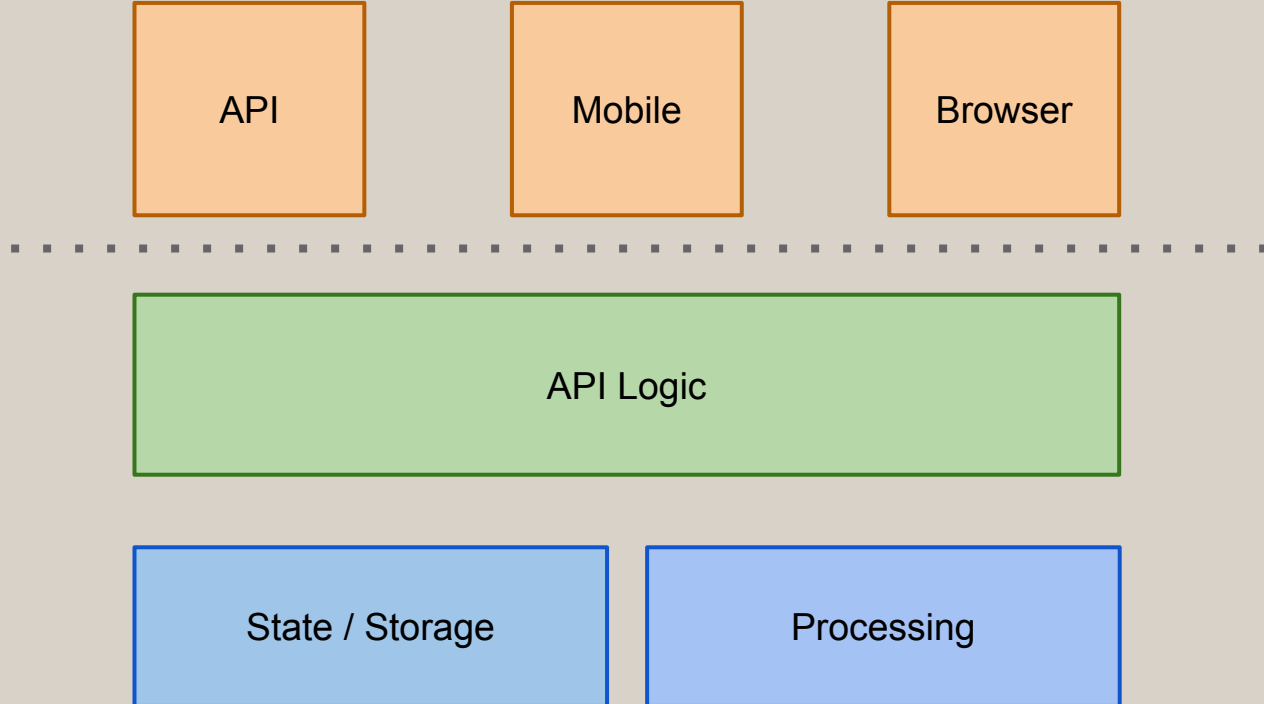
Development Stacks

[adam@honestbuildings.com](mailto:adam@honestbuildings.com)

# *Class Business*

- Project Teams
- GitHub Names + Faces
- Attendance

# The Stack



# The Stack

API

- Protocol (HTTP, TCP, Socket, ?)
- Language

Mobile

- Cocoa vs Java
- Cross-compiler
- Phone-Gap

Browser

- JS, CoffeeScript, TypeScript
- CSS, SASS v LESS
- Semantic HTML v Tables
- SVG, Canvas

# The Stack



API Logic

- Python, Java, JavaScript / NodeJS, PHP, Ruby, C++
- Spring, Rails, Meteor

# The Stack

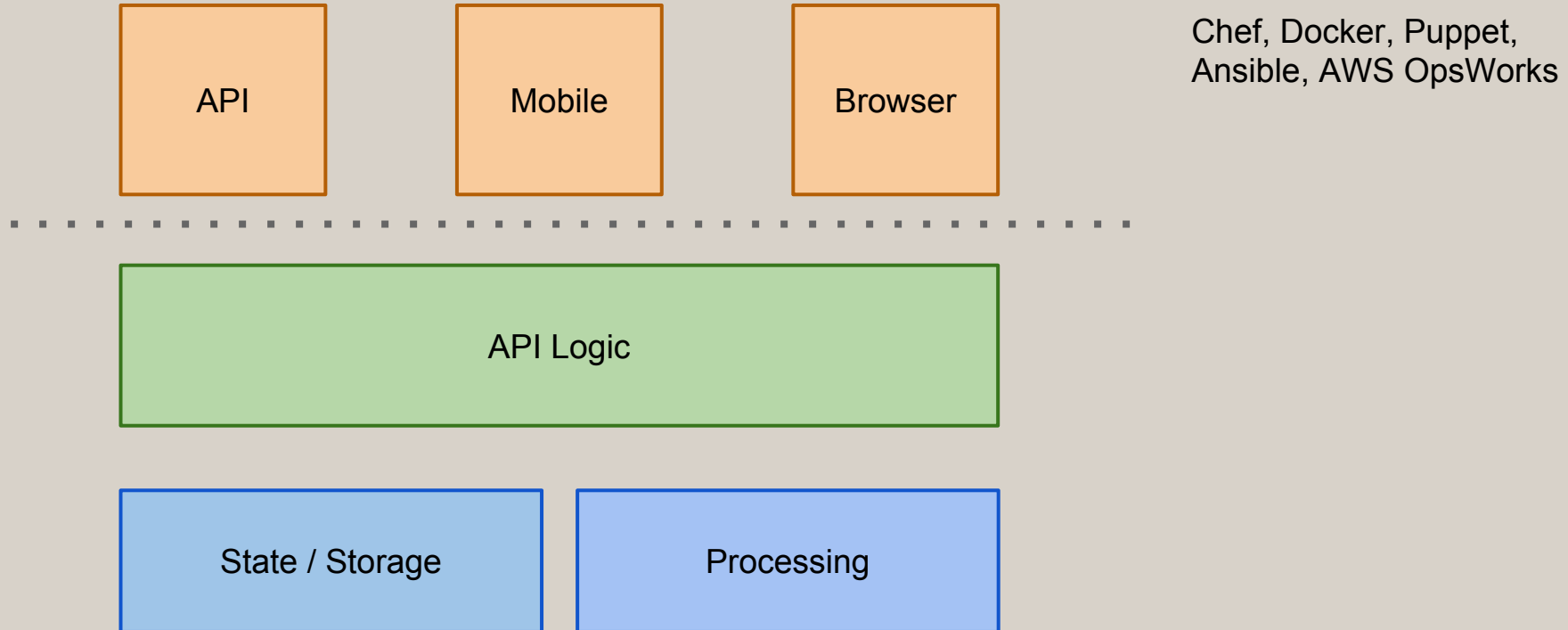
## State / Storage

- MySQL, PostgreSQL, MongoDB, Redis, Cassandra
- Amazon RDS, Redshift

## Processing

- Hadoop, RabbitMQ

# The Stack



# The Stack

## *Good Stack Choices*

- Can help you ***focus***
- Offer generic solutions to (potentially many!) problems
- Empower developers

## *Poor Stack Choices*

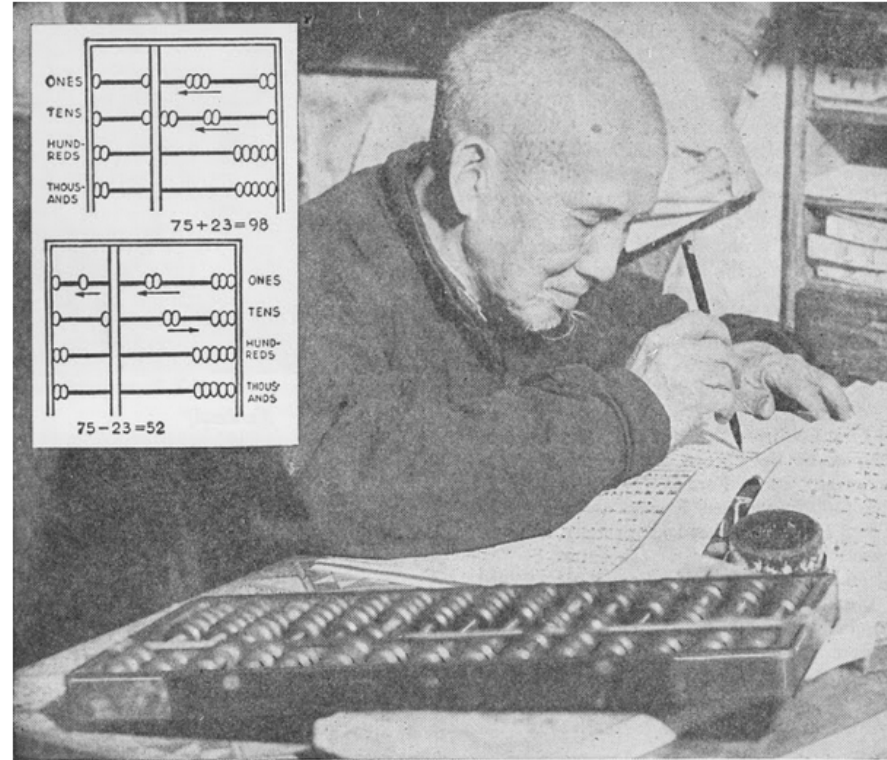
- Introduce fun (but irrelevant) distractions
- You get to re-implement standard libraries
- Difficult hiring *or* training takes weeks



# How to Choose?

*"If our basic tool, the language in which we design and code our programs, is also complicated, the language itself becomes part of the problem rather than part of its solution"*

- Hoare [<http://dl.acm.org/citation.cfm?id=358561>]



# 0. *Personal Favourite*



# 1. *Social Proof*

- It worked before
- It did not work before
- Someone I trust uses it
- Everyone jumping

## 2. *Developer Happiness*

### C0D3RS <3

- Their own choices
- Cutting edge tech
- Vibrant dev communities

## 3. *The Benefits*

- Domain suitability
- Language and Library Maturity
- Symmetry across the stack (JavaScript)

# *Your Stack*

- What problem are you solving
- What is important to you?
- What do you know?

# Next Steps

- *Project Teams Unite!*
- *Get setup in a project management system*
- *Setup your AWS Educational Account*
- *Prepare your first Story*