iOS vs Vapor

from frontend to backend

Dominik Hádl



iOS Lead @ Nodes Agency



twitter.com/dominikhadl



github.com/nickskull
github.com/nodes-ios

Let's all do Vapor

100%

of your iOS knowledge is useless in server side Swift

However...

What is this about?

- 1. Fundamental Differences
- 2. Paradigm Shift
- 3. Beyond Vapor & Swift
- 4. Security & Hacks

1. Fundamental Differences

Users

(input)

```
i0S: 1
```

```
Vapor: unlimited (*)
```

Performance

ios: Free, but limited.

Vapor: Costs you money.

Crashes

ios:

Reading reports once a week.

Server:

Getting a call at 3:00 AM.

Updates

iOS:

Slower, but "safe".

Server:

Instant, but dangerous.

2. Paradigm Shift

You never commit your .xcodeproj file.

You never commit your .xcodeproj file.

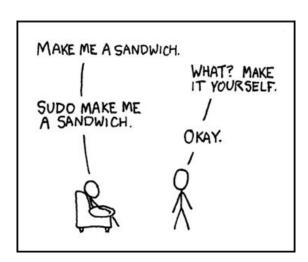


You never commit your .xcodeproj file.

It's crucial to know your way around in terminal.

You never commit your .xcodeproj file.

It's crucial to know your way around in terminal.



You never commit your .xcodeproj file.

It's crucial to know your way around in terminal.

Everything becomes a framework, so **OSS** or die!

You never commit your .xcodeproj file.

It's crucial to know your way around in terminal.

Everything becomes a framework, so OSS or die!



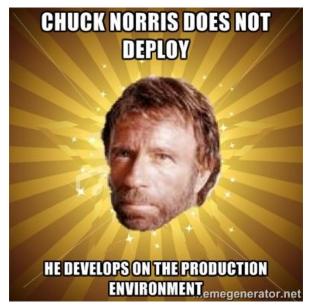
You never commit your .xcodeproj file.

It's crucial to know your way around in terminal.

Everything becomes a framework, so OSS or die!

You work with **multiple environments**, like staging and production.

You work with **multiple environments**, like staging and production.



3. It's not just Vapor

You will have to use **Linux** (Ubuntu 14.04, 16.04), if you want to deploy and more importantly test your code.

You will have to use **Linux** (Ubuntu 14.04, 16.04), if you want to deploy and more importantly test your code.

For this purpose **virtual machines** are essential when you work on Mac (Vagrant, Docker, VMware...).

You will have to use **Linux** (Ubuntu 14.04, 16.04), if you want to deploy and more importantly test your code.

For this purpose **virtual machines** are essential when you work on Mac (Vagrant, Docker, VMware...).

You still need some **web servers** (Apache, nginx) which forward traffic to your Vapor backend.

A lot of types MySQL, SQLite, PostgreSQL, MongoDB, Redis.

A lot of types MySQL, SQLite, PostgreSQL, MongoDB, Redis.



A lot of types MySQL, SQLite, PostgreSQL, MongoDB, Redis.

Designing databases can be difficult.



A lot of types MySQL, SQLite, PostgreSQL, MongoDB, Redis.

Designing databases can be difficult.

Seeding, migrations and queries.



Only cross-platform package manager for Swift projects.

Only cross-platform package manager for Swift projects.

In development, often breaking changes.

Only cross-platform package manager for Swift projects.

In development, often breaking changes.

Missing a lot of features.

4. Security & Hacks

74%

of small companies hacked in 2016

30 000+

websites and backends hacked every day

1 Thps+

traffic that was caused by a DDoS attack in 2016

Make backups often.

Make backups often.

Validate and sanitize everything everywhere.

Make backups often.

Validate and sanitize everything everywhere.

Encrypt sensitive information and connection.

Make backups often.

Validate and sanitize everything everywhere.

Encrypt sensitive information and connection.

Run stable OS version, install security updates regularly.

Make backups often.

Validate and sanitize everything everywhere.

Encrypt sensitive information and connection.

Run stable OS version, install security updates regularly.

Use 3rd party tools to protect against DoS attacks.

Make backups often.

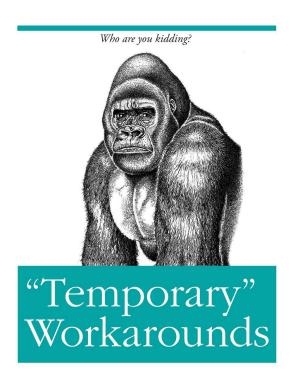
Validate and sanitize everything everywhere.

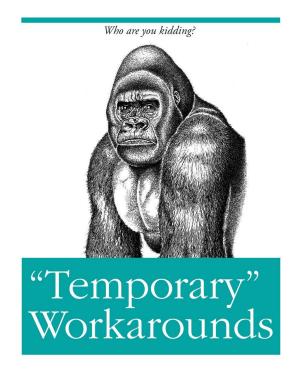
Encrypt sensitive information and connection.

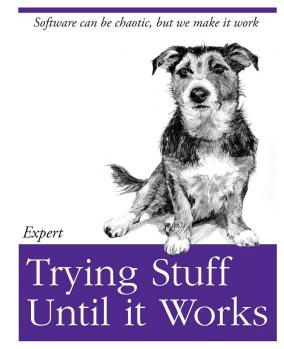
Run stable OS version, install security updates regularly.

Use 3rd party tools to protect against DoS attacks.

(Ideally) never use raw SQL queries with user input.

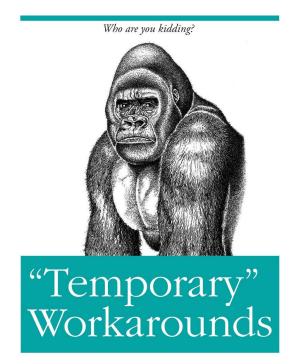


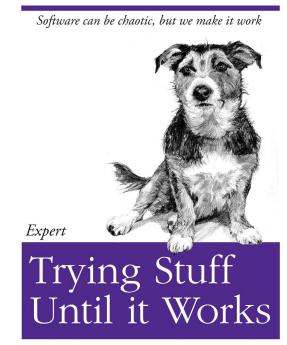




O RLY?

The Practical Developer @ThePracticalDev





The internet will make those bad words go away Essential Googling the Error Message

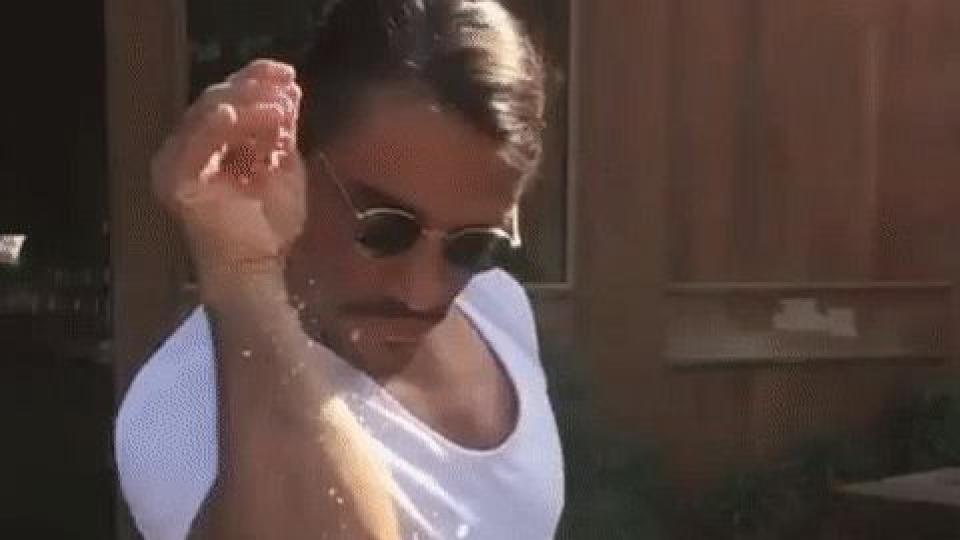
O RLY?

Why Vapor

and server side Swift?

- Powerful new language
 you already (may) know.
- Big & active community
- Rapid development
- It's fun!
- and...

This is how you look when making Swift backends.



Recap

Think about the bigger picture, users and performance.

What works on iOS does not have to work on server side.

There's a lot to learn about other tools.

Understand risks and potential security issues.

Need help?

The documentation contains a lot of answers.



Explore Vapor's source code. </>

Ask for help on Slack! 🗱



Submit issues and pull requests.



Want to be our colleague? nodesagency.com/careers

about Vapor

about Vapor

about iOS

```
about Vapor
about iOS
about my personal life
```

Thank you

Be sure to talk to me afterwards!