Writing REST API's in C

Brian Downs 2019

Who Am I?

- 1. Software Engineer @ Couchbase
- GolangPhoenix Organizer and BSD-PHX Co-Organizer
- 3. Amatuer cook and gardener



Why build a REST API in C?

Build Our API?

What Do We Need to

Core Components

- Ulfius
- make
- Docker
- Kubernetes

Ulfius

- Website: https://babelouest.github.io/ulfius
- HTTP / Websocket / Framework / JSON

Middleware

- Logging
- Authentication

Logging

- Website: https://babelouest.github.io/ulfius
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Authentication

- Basic Auth
- Token Auth

DEMO!

Demo continued...

HTTP GET Request

Demo continued...

HTTP GET w/auth Request

Demo continued...

HTTP POST w/auth Request

What all just happened?

To the code!

Where do we go next?

- Reusable middlewares
 - Auth
 - Logging
 - Metrics

Conclusion

If you have to write an HTTP JSON API in C, it's absolutely doable, easy, and maintainable through well defined components, built on proven technology.

Projects & Example Code

- Simple-svc:
 - o github.com/briandowns/dcc19-simple-svc

Questions?

Thank You

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