RAILS API-ONLY CONSIDERATIONS

WELCOME

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WHAT THIS TALK IS *NOT* ABOUT

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- Are Microservices a good idea?
- API best practices

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- How to use the `api` flag

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- How to use the `api` flag
- Considerations when going API-only
- Create more questions than answers

WHY RAILS

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- Middleware, Logging, Instrumentation, Caching
- Code-reloading, Environments
- Security
- Parameters, Error handling
- Rails console!
- Convention over Configuration

WHAT IS `--api`?

- Since Rails 5.0
- `rails new --api`
- Sane defaults for API-only applications

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- `ActionController::API` instead of `ActionController::Base`
- Adjust Rack Middleware

SELECTED MIDDLEWARES

- Rack::Sendfile, ActionDispatch::Static
- AD::Executor, AD::Reloader
- AD::RemoteIp
- AD::ShowExceptions, AD::DebugExceptions
- ActiveRecord::Migration::CheckPending
- Rails::Rack::Logger, Rack::Runtime, AD::RequestId
- Rack::ConditionalGet, Rack::ETag
- …

REJECTED MIDDLEWARES

- Rack::MethodOverride
- Asset/Sprocket-related
- Cookies, Flash-related
- …

SELECTED CONTROLLER MODULES

- ActionController::StrongParameters
- AbstractController::Callbacks
- ActionController::Rescue
- AbstractController::Rendering
- ActionController::Instrumentation
- ActionController::UrlFor
- …

REJECTED CONTROLLER MODULES

- AbstractController::Translation
- ActionController::MimeResponds
- ActionController::Cookies
- …

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- Use flag or not: Manual config work is necessary!
  - Example: remove `SendFile`, add `Translation`

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- Opinion: The guide provides more value than the actual cli flag
- Use flag or not: Manual config work is necessary!
  - Example: remove `SendFile`, add `Translation`
- Easy reverse-engineering: No need to generate a new app to use it!

MORE OPTIONS FOR `rails new`

- `--skip-yarn`
- `--skip-sprockets`
- `--skip-action-mailer`
- `--skip-active-storage`
- `--skip-action-cable`
- `--skip-active-record`
- ...

EXAMPLE FOR `rails new`

```
rails new --api --skip-active-storage
--skip-action-mailer --skip-active-
record --skip-action-cable ApiExample
```

Pro tip: Evaluating the Middleware, Controller-includes and building blocks makes sense for **every** kind of Rails app!

THE SACRED DREAM OF THE HTTP-ONLY LEAN, MEAN REST API SERVER.

LIVING THE BACKEND DEV DREAM

- Stateless
- Unaware about the rest of the world
- Pure data channelled through HTTP

THE REAL SCOPE OF YOUR APPLICATION

Your app is usually more than a public facing API.

CONSIDER FOR BROWSER CLIENTS

- You might need CORS. Do you need it for every route?
- What does this mean for SEO, your crawl budget?

WHICH KIND OF AUTH FOR THE BROWSER?

- Session, e.g. via wildcard cookies
  - Good: HTTP only, SSL only
  - Bad: Danger of Request Forgery, not suitable for mobile
- API Tokens:
  - Good: No CSRF attacks
  - Bad: Accessible via JS, offloads some Security to SPA, no more `session` store

STATIC PAGES - **`PagesController#home`**

- Do you need to host static pages?
  - e.g. for mobile clients, imprint for app stores
- Are your current static pages really static?
  - Where will this content come from? A CMS? Static from the SPA?
  - Is it really independent from the API platform?

ADMIN UI

- Productivity: Ransack, Kaminari, Devise, SimpleForm, etc.
- Its own SPA?
  - Admin API?
  - Admin API Docs?
- Another Rails app as a client? (ActiveResource-style)

EMBEDDED OTHER WEB APPS?

- Mail preview renderings
- Sidekiq/Resque web interfaces
  - Keep authentication in mind!

MORE COMPLICATED WORKFLOWS

- OAuth provider
- Email workflow (confirmation)
  - API Server must know URL of SPA?

:O

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- But: Really important to determine the scope of necessary changes.
- Check not only technical effort, but also your workflow.

THANK YOU!

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SOURCES

- Using Rails for API-only Applications
- Rails CSRF protection for SPA
- How to Build Rails APIs Following the json:api Spec
- Building a JSON API with Rails 5
- Building the Perfect Rails 5 API Only App
- Master Ruby Web APIs - Devblast