

ANDY CALLAGHAN - MARCH 2024

# RUBY ON RAILS AS A SOLO APP DEVELOPER

WELCOME TO  
BRIXTON HILL  
STUDIO

**JAMMED**





# WHAT IS RUBY?

- Server-side programming language
- Now used mainly for web application applications
- Dynamically typed, metaprogramming & interpreted by a C runtime - MRI - “Matz’s Ruby Interpreter”
- Can be used by itself puts ‘Hello World’
- Slow compared to C++ et al, but fast enough for the web

```
app > services > price_change_service.rb
```

```
1  class PriceChangeService
2    attr_reader :prices
3
4    def initialize
5      @prices = Price.all
6    end
7
8    def multiple!(multiple)
9      @prices.each do |price|
10         old_price = price.price
11
12         new_price = old_price * multiple
13         price.update(price: new_price)
14       end
15     end
16   end
17
```

# RUBY IS BEAUTIFUL!

- Expressive and English-like
- Syntax only when absolutely needed
- Complex ideas expressed precisely
- Emphasis is on readability

```
a = [0, 1, 2]
a.repeated_combination(2)
=> [[0, 0], [0, 1], [0, 2], [1, 1], [1, 2], [2, 2]]
```



# WHAT IS RAILS?

- Web application framework for Ruby
- Started in 2007 - by DHH, David Heinemeier Hansson
- Powers Github, Square, Twitch, Airbnb, Twitter, Shopify, [gov.uk](http://gov.uk) & many others
- MVC - separating 'business logic' away from presentation & routing
- Convention over configuration
- 'One Person Framework' - everything is included
- All projects look roughly the same
- Now on Rails 7.1 - new major version every 2/3 years
- Extracted from real applications

```
membership.rb M ●
app > models > membership.rb
1  class Membership < ApplicationRecord
2    belongs_to :band
3    belongs_to :customer
4
5    validates_uniqueness_of :customer_id,
6      scope: :band_id,
7      message: "This customer is already in this band"
8  end
9
```

# HOW I USE RAILS

## **Jammed.app**

**Entire app uses Rails 7.0. Due and JS frontend for fancy booking controls. Built from scratch.**

**Database connections and business logic handled by ActiveRecord.**

## **UK Government apps**

**Freelancing for central UK government. Open source & public build**

**[github.com/OfficeForProductSafetyAndStandards/product-safety-database](https://github.com/OfficeForProductSafetyAndStandards/product-safety-database)**

**[github.com/OfficeForProductSafetyAndStandards/cosmetic-product-notifications](https://github.com/OfficeForProductSafetyAndStandards/cosmetic-product-notifications)**

**[github.com/alphagov/whitehall](https://github.com/alphagov/whitehall)**

# NAMING CONVENTIONS IN RAILS

## BACK END

**Active Record**

**Active Support**

**Active Model**

**Active Job**

**Active Storage**

## FRONT END

**Action Mailer**

**Action Pack**

**Action View**


**Action Cable**

**Action Text**

**Action Mailbox**



# META PROGRAMMING

```
app > models >  room.rb
```

```
1  class Room < ApplicationRecord
2    include GeneratedCode
3
4    has_many :bookings
5    has_many :blocked_times
6    has_many :prices, dependent: :delete_all
7
```

```
app > models >  booking.rb
```

```
1  class Booking < ApplicationRecord
2    include GeneratedCode
3    include SoftDeleteable
4
5    belongs_to :room
```

**CODE REUSE**



```
app > models > concerns > generated_code.rb
```

```
1  require 'code_generator'
2
3  module GeneratedCode
4    extend ActiveSupport::Concern
5
6    included do
7      before_create :generate_code
8    end
9
10   private
11
12   def generate_code
13     code = CodeGenerator.generate_code(8)
14     generate_code if self.class.where(code: code).count > 0
15     self.code = code
16   end
17 end
```

**DON'T REINVENT THE WHEEL**

**EMBRACE THE MONOLITH!**





**Michael Jackson** 

@mjackson



Counterpoint: Java (Scala) microservices we're an absolute nightmare for us at Twitter as we migrated off Ruby on Rails. Much of the complexity that Elon mentioned after he bought the company was from this architecture.



**Ben Hughes** @schleyfox · Sep 11

At @Airbnb, while we appreciated the flexibility of Ruby on Rails earlier on, it absolutely became unsuitable at scale (both traffic and organizationally) and we had to work miracles while replacing much of it with java microservices.  
[twitter.com/dhh/status/170...](https://twitter.com/dhh/status/170...)

9:56 AM · Sep 12, 2023 · **500.4K** Views

**BUT HOW IS THIS GOOD  
AS A SOLO DEVELOPER?**

# THINGS I WOULD DO AGAIN

- Build something that I want to use
- Build with a customer
- Don't take investment 😬
- Don't be afraid to be small
- Plan to grow in years of sustainable growth



# WHAT I WOULD DO DIFFERENTLY

- **Find a non-tech co-founder**
- **Don't build a booking app before a global pandemic that shuts all studios**
- **Don't underestimate mobile & native apps**
- **Be guided but not lead by customers**

# JAMMED

