

# crash course Ruby on Rails

**Gavin Stark**

**Back End Ruby Instructor**

**Co Organizer of The Tampa Ruby Brigade**



# Riley

**Tampa Ruby Brigade**  
**10 Years Old**

[meetup.com/tamparubybrigade](https://meetup.com/tamparubybrigade)



# Suncoast Developers Guild

[suncoast.io](http://suncoast.io)



# About the Web

- HTML pages delivered to your browser
- Delivered via HTTP/TLS protocol
- JavaScript/CSS/image and other assets
- Cookies
- Links followed and forms submitted
- Recently: websockets

# HTTP protocol

- Basis for everything we do on the web
- *(H)yper(t)ext (T)ransport (P)rotocol*
- Tim Berners-Lee at CERN in 1989
- *(now Sir Tim Berners-Lee)*
- Yes, you can be knighted for inventing a protocol

The Hypertext Transfer Protocol (HTTP) is an application-level protocol for distributed, collaborative, hypermedia information systems. It is a generic, stateless, protocol which can be used for many tasks beyond its use for hypertext, such as name servers and distributed object management systems, through extension of its request methods, error codes and headers [47]. A feature of HTTP is the typing and negotiation of data representation, allowing systems to be built independently of the data being transferred.

HTTP has been in use by the World-Wide Web global information initiative since 1990. This specification defines the protocol referred to as "HTTP/1.1", and is an update to [RFC 2068](#) [33].

Fielding, et al.

Standards Track

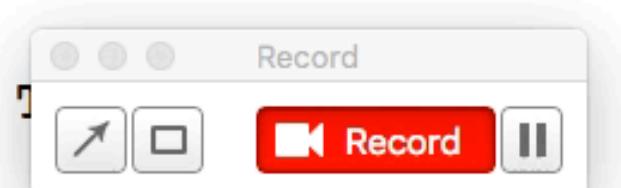
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[RFC 2616](#)

HTTP/1.1

June 1999



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# Who uses Rails anyway?

- The Iron Yard
- 500px
- Airbnb
- Dribble
- Funny or Die
- Genius (Rap Genius)
- GitHub

# Who uses Rails anyway?

- Goodreads
- Groupon
- LivingSocial
- Hulu
- Kickstarter
- Shopify
- Square
- Urban Dictionary

# Brief history of Rails

- *David Heinemeier Hansson* contracted to build Basecamp
- Convinced 37 Signals to allow him to code it in Ruby
- **Extracted** from that code base

RUBY | OPENSSH | RUBY ON RAILS | OPENSSL | RUBY GEMS | SONAR

# LINUX JOURNAL

Since 1994: The Original Magazine of the Linux C

JULY 2006 | ISSUE 147 | [www.linuxjournal.com](http://www.linuxjournal.com)

## Ruby Everywhere, Including Rails

Getting  
Started  
with Ruby

Ruby the  
Enterprise Glue

Rails and  
More Rails

Ruby Has  
Many Gems



UNDER-ICE  
Sonar  
Visualizations

Ruby on Rails creato

<< David  
Heinemeier  
Hansson

PLUS

Creating a  
Searchable Site

Mashups

Game Rubies



# Opinionated Software

- Convention over Configuration
- Don't Repeat Yourself
- Testing built-in
- Environments built in (dev, test, prod)
- Database migrations

# Application patterns

- Everything in a familiar place
- ActiveRecord
- Extends Ruby
- DSL

**WE'LL JUST PUT OUR SQL**

**Dynamic Data on the Web**

**RIGHT IN OUR  
HTML**

# Dynamic Data on the Web

```
<cfoutput>
  <cfquery name="myQuery" datasource="#myDatabase#">
    SELECT name, balance FROM accounts where status = 'active'
  </cfquery>
  <cfloop query="myQuery">
    #name# - #balance# <br/>
  </cfloop>
</cfoutput>
```

# ActiveRecord

- Based on the “Active Record” pattern
- Defines objects around database records
- Defines query interfaces
- Defines relationships between objects (tables)

# ActiveRecord

- Typically to map table to object
- Determines attributes by reflection
- Base class exposes creating, find, update, delete API

# ActiveRecord

```
class Account < ActiveRecord::Base
  has_many :transfers
  belongs_to :customer

  scope :active -> { where(status: "active") }

  def available_to_withdraw
    balance - pending
  end
end
```

# Database Migrations



```
class CreateBooks < ActiveRecord::Migration
  def change
    create_table :books do |t|
      t.string :title
      t.string :author_name
      t.datetime :date_published
      t.timestamps null: false
    end
  end
end
```

# Testing

- Built into framework, generates test files for generated models, controllers.
- Can generate tests for:
  - Models
  - Controllers
  - Integration
  - e-mail

**Let's make an app**

# But first...

- Installing Rails isn't as easy as it should be
- especially on Windows ... (*Rails Installer*)
- Others:
  - ruby-install
  - rvm
  - homebrew (mac)
  - third party repo with an up-to-date ruby (2.2 or later)
- Fortunately, we can use a cloud based environment for this course

# Cloud 9

- Login to c9.io
- Register for free account
  - Credit card required: 😠
- Click: *Create a new workspace*

# Cloud 9

- Enter a workspace name (foodtruck)
- Choose Hosted
- Choose Public
- Enter this as the URL:
  - `https://github.com/tiy-tpa-ruby/food-truck.git`
- Select *Ruby* as the template
- Click 'Create workspace'

**Lets code!!**

