UNIVERSIDAD DE LAS FUERZAS ARMADAS ESPE

Advanced Web Programming

RUBY

Team# 4

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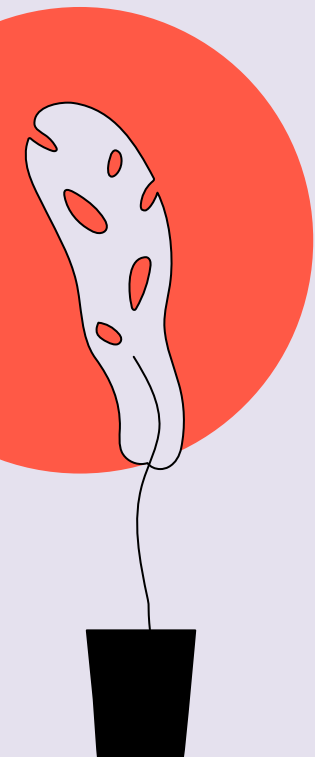Yepez Christopher

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INTRODUCTION

Ruby is a programming language that appeared in 1993, as an unique way to create software applications with more understandable code, and giving programmers many possibilities to create their applications.

But its peak was on 2004 with the development of "Ruby on Rails" created by David Heinemeier Hansson, or commonly named DHH. Rails uses a lot of architecture design and different modeling process to the creation of web applications giving the programmer many facilities and helping to create something new with a lot of structure and in short time.

Actually ruby is still used, but its community has been decreased in the last years with the emergence of new technologies that could make the same with less structure and more flexibility.
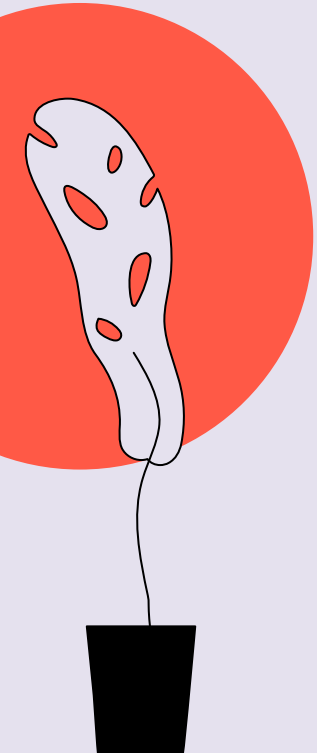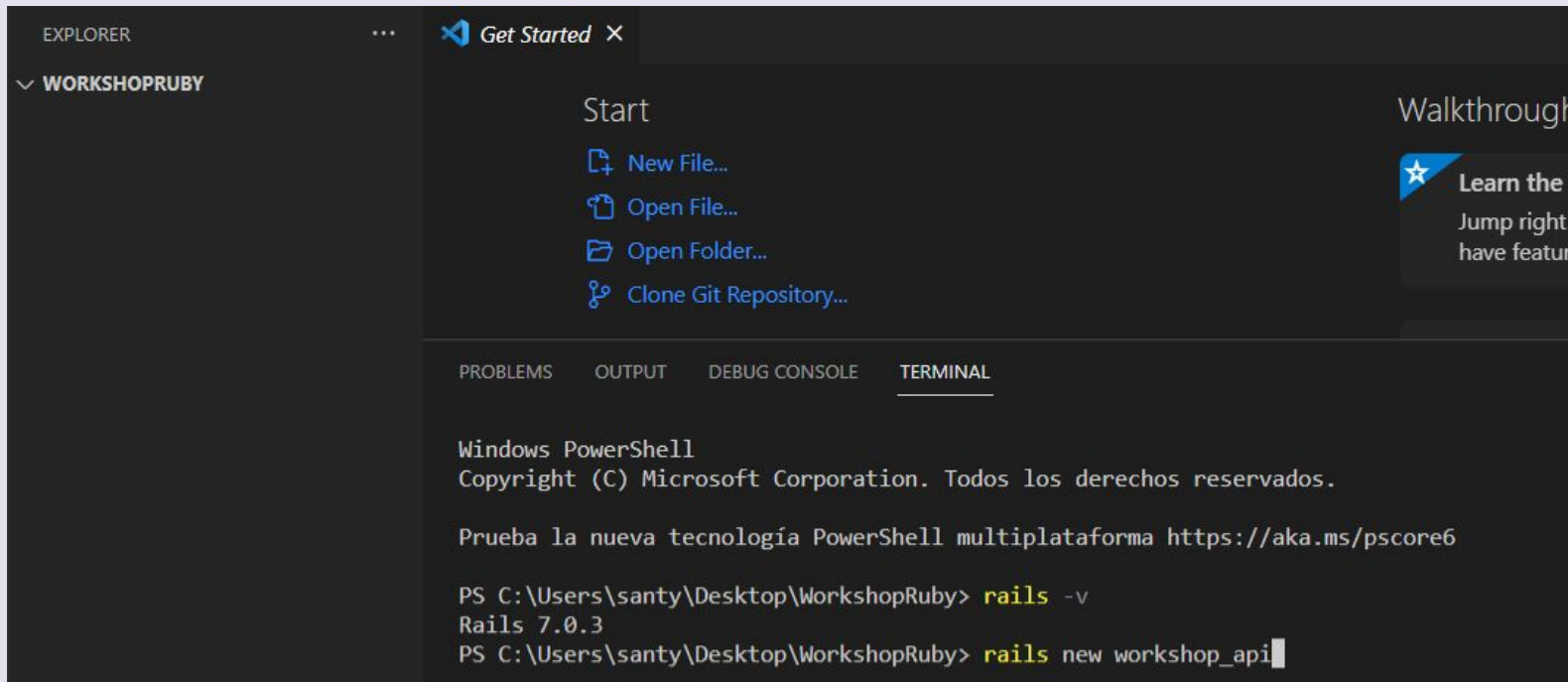
02

Development

Create the container folder

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER

∨ WORKSHOP_API

> app
> bin
> config
> db
> lib
> log
> public
> storage
> test
> tmp
> vendor
  .gitattributes   U
  .gitignore   U
  .ruby-version   U
  config.ru   U
  Gemfile   U
  Gemfile.lock   U
  Rakefile   U
  README.md   U

config.ru U ✕

config.ru

```
1    # This file is used by Rack-based servers to start the application.
2
3    require_relative "config/environment"
4
5    run Rails.application
6    Rails.application.load_server
7    |
```

Installation Problems

→

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL


Windows PowerShell
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Prueba la nueva tecnología PowerShell multiplataforma https://aka.ms/pscore6


PS C:\Users\santy\Desktop\WorkshopRuby> rails -v
Rails 7.0.3
PS C:\Users\santy\Desktop\WorkshopRuby>
```

```
PS C:\Users\santy\Desktop\WorkshopRuby> rails -v
Rails 7.0.3
PS C:\Users\santy\Desktop\WorkshopRuby> rails new workshop_api
```

```
PS C:\Users\santy\Desktop\WorkshopRuby> rails -v
Rails 7.0.3
PS C:\Users\santy\Desktop\WorkshopRuby> rails new workshop_api
      create
      create  README.md
      create  Rakefile
      create  .ruby-version
      create  config.ru
      create  .gitignore
      create  .gitattributes
      create  Gemfile
         run  git init from "."
Initialized empty Git repository in C:/Users/santy/Desktop/WorkshopRuby/workshop_api/.git/
      create  app
      create  app/assets/config/manifest.js
      create  app/assets/stylesheets/application.css
      create  app/channels/application_cable/channel.rb
      create  app/channels/application_cable/connection.rb
      create  app/controllers/application_controller.rb
      create  app/helpers/application_helper.rb
      create  app/jobs/application_job.rb
      create  app/mailers/application_mailer.rb
      create  app/models/application_record.rb
```

```
Bundle complete! 15 Gemfile dependencies, 70 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
        run  bundle binstubs bundler
      rails  importmap:install
rails aborted!
TZInfo::DataSourceNotFound: tzinfo-data is not present. Please add gem 'tzinfo-data' to your Gemfile and run bundle in
stall
C:/Users/santy/Desktop/WorkshopRuby/workshop_api/config/environment.rb:5:in `<main>'

Caused by:
TZInfo::DataSources::ZoneinfoDirectoryNotFound: None of the paths included in TZInfo::DataSources::ZoneinfoDataSource.
search_path are valid zoneinfo directories.
C:/Users/santy/Desktop/WorkshopRuby/workshop_api/config/environment.rb:5:in `<main>'
Tasks: TOP => app:template => environment
(See full trace by running task with --trace)
      rails  turbo:install stimulus:install
You must either be running with node (package.json) or importmap-rails (config/importmap.rb) to use this gem.
You must either be running with node (package.json) or importmap-rails (config/importmap.rb) to use this gem.
```

```
36    # Use Active Model has_secure_password [https://guides.rubyonrails.org/active_model_basics.html#securepassword]
37    # gem "bcrypt", "~> 3.1.7"
38
39    # Windows does not include zoneinfo files, so bundle the tzinfo-data gem
40    gem "tzinfo-data", platforms: %i[ mingw mswin x64_mingw jruby ]
41
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
      rails  importmap:install
rails aborted!
TZInfo::DataSourceNotFound: tzinfo-data is not present. Please add gem 'tzinfo-data' to your Gemfile and run bundle in
stall
C:/Users/santy/Desktop/WorkshopRuby/workshop_api/config/environment.rb:5:in `<main>'
```

The solution


```
gem 'tzinfo-data', platforms: [:mingw, :mswin, :x64_mingw]
```

PROBLEMS   OUTPUT   TERMINAL   JUPYTER   DEBUG CONSOLE

```
Windows PowerShell
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Prueba la nueva tecnología PowerShell multiplataforma https://aka.ms/pscore6

PS C:\Users\nicol\Downloads\web\workshop_api> rails server
=> Booting Puma
=> Rails 7.0.3 application starting in development
=> Run `bin/rails server --help` for more startup options
*** SIGUSR2 not implemented, signal based restart unavailable!
*** SIGUSR1 not implemented, signal based restart unavailable!
*** SIGHUP not implemented, signal based logs reopening unavailable!
Puma starting in single mode...
* Puma version: 5.6.4 (ruby 3.1.2-p20) ("Birdie's Version")
*  Min threads: 5
*  Max threads: 5
*  Environment: development
*          PID: 10732
* Listening on http://[::1]:3000
* Listening on http://127.0.0.1:3000
Use Ctrl-C to stop
```

Database

Data base

```
→ rails db:migrate
== 20210130171411 CreateBands: migrating ========================================
-- create_table(:bands)
   → 0.0026s
== 20210130171411 CreateBands: migrated (0.0027s) ===============================
```

```
→ rails c
Running via Spring preloader in process 6823
Loading development environment (Rails 6.1.1)
irb(main):001:0> Band.create(name: "AC/DC")
  (0.8ms)  SELECT sqlite_version(*)
  TRANSACTION (0.1ms)  begin transaction
  Band Create (0.5ms)  INSERT INTO "bands" ("name", "created_at", "updated_at") VALUES (?, ?, ?)  [["name", "AC/DC"], ["created
at", "2021-01-30 17:16:10.988283"], ["updated_at", "2021-01-30 17:16:10.988283"]]
  TRANSACTION (0.5ms)  commit transaction
⇒ #<Band id: 1, name: "AC/DC", created_at: "2021-01-30 17:16:10.988283000 +0000", updated_at: "2021-01-30 17:16:10.988283000 +
000">
```

→

```
band_serializer.rb U  ✕        member_serializer.rb U        active_model_serializer.rb U

app > serializers >  band_serializer.rb
1   class BandSerializer < ActiveModel::Serializer
2     attributes :id, :name
3     has_many :members
4   end
5
```

```
app > models >  member.rb
1   class Member < ApplicationRecord
2     belongs_to :band
3   end
4
```

```
app > models >  band.rb
1   class Band < ApplicationRecord
2       has_many :members
3   end
4
```

Get Method

```ruby
app > controllers > bands_controller.rb
1  class BandsController < ApplicationController
2    before_action :set_band, only: %i[ show update destroy ]
3
4    # GET /bands
5    def index
6      @bands = Band.all
7      # muestra todos los datos
8      render json: @bands
9      #render json: @bands.include(:members), only:  [:id,:name]
10   end
11
12   # GET /bands/1
13   def show
14     render json: @band
15   end
```
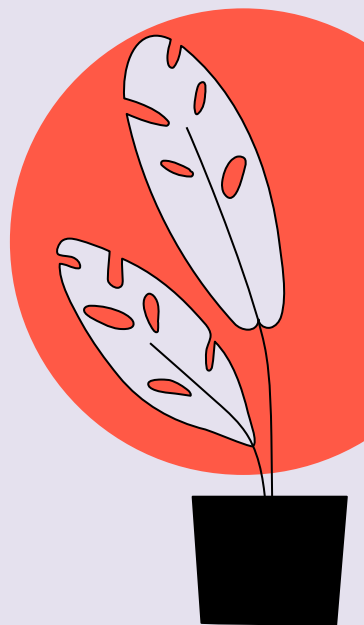
Display all the elements

127.0.0.1:3000/bands

```
▼ {
    ▼ "data": [
        ▼ {
                "id": "1",
                "type": "bands",
            ▼ "attributes": {
                    "name": null
                },
            ▼ "relationships": {
                ▼ "members": {
                    ▼ "data": [
                        ▼ {
                                "id": "1",
                                "type": "members"
                            }
                        ]
                    }
                }
            },
        ▼ {
                "id": "2",
                "type": "bands",
            ▼ "attributes": {
                    "name": "AC/DC"
                },
            ▼ "relationships": {
                ▼ "members": {
                        "data": []
                    }
                }
            },
```

Display by id

http://127.0.0.1:3000/bands/3

| GET ∨ | http://127.0.0.1:3000/bands/3 |

Params Authorization Headers (7) **Body** Pre-request Script Tests

● none ● form-data ● x-www-form-urlencoded 🔴 raw ● binary ● Gra

```
1
```

Body Cookies Headers (14) Test Results

Pretty Raw Preview Visualize JSON ∨

```json
1  {
2      "data": {
3          "id": "3",
4          "type": "bands",
5          "attributes": {
6              "name": "Coldplay"
7          },
8          "relationships": {
9              "members": {
10                 "data": []
11             }
12         }
13     }
14  }
```

POST method


```ruby
# POST /bands
def create
  @band = Band.new(band_params)

  if @band.save
    render json: @band, status: :created, location: @band
  else
    render json: @band.errors, status: :unprocessable_entity
  end
end
```

DELETE method

Thanks!