

EXÁMEN PARCIAL – PARTE 2

Desarrollo de Software

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## Introducción a Rails

Introducimos dentro del símbolo del sistema “rails new todo\_app”, así:

```
C:\Windows\System32>rails new todo_app
"rail" no se reconoce como un comando interno o externo,
programa o archivo por lotes ejecutable.

C:\Windows\System32>rails new todo_app
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:/Windows/System32/todo_app/.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
create  app/views/layouts/application.html.erb
create  app/views/layouts/mailer.html.erb
create  app/views/layouts/mailer.text.erb
create  app/assets/images
create  app/assets/images/.keep
create  app/controllers/concerns/.keep
create  app/models/concerns/.keep
create  bin
create  bin/rails
create  bin/rake
create  bin/setup
create  Dockerfile
create  .dockerignore
create  bin/docker-entrypoint
create  config
create  config/routes.rb
create  config/application.rb
create  config/environment.rb
create  config/cable.yml
create  config/puma.rb
create  config/storage.yml
```

```

Resolving dependencies...
Installing psych 5.1.1.1 with native extensions
Fetching irb 1.8.3
Installing irb 1.8.3
Fetching railties 7.1.1
Installing railties 7.1.1
Fetching rails 7.1.1
Installing rails 7.1.1
Bundle complete! 14 Gemfile dependencies, 83 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
  run bundle lock --add-platform=x86_64-linux
Fetching gem metadata from https://rubygems.org/.....
Resolving dependencies...
Writing lockfile to C:/Windows/System32/todo_app/Gemfile.lock
  run bundle binstubs bundler
  rails importmap:install
  apply C:/Ruby30-x64/lib/ruby/gems/3.0.0/gems/importmap-rails-1.2.1/lib/install/install.rb
Add Importmap include tags in application layout
  insert app/views/layouts/application.html.erb
Create application.js module as entrypoint
  create app/javascript/application.js
Use vendor/javascript for downloaded pins
  create vendor/javascript
  create vendor/javascript/.keep
Ensure JavaScript files are in the Sprocket manifest
  append app/assets/config/manifest.js
Configure importmap paths in config/importmap.rb
  create config/importmap.rb
Copying binstub
  create bin/importmap
  run bundle install
Bundle complete! 14 Gemfile dependencies, 83 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
  run bundle lock --add-platform=x86_64-linux
Writing lockfile to C:/Windows/System32/todo_app/Gemfile.lock
  rails turbo:install stimulus:install
  apply C:/Ruby30-x64/lib/ruby/gems/3.0.0/gems/turbo-rails-1.5.0/lib/install/turbo_with_importmap.rb
Import Turbo
  append app/javascript/application.js
Pin Turbo
  append config/importmap.rb
  run bundle install
Bundle complete! 14 Gemfile dependencies, 83 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
  run bundle lock --add-platform=x86_64-linux
Writing lockfile to C:/Windows/System32/todo_app/Gemfile.lock
Run turbo:install:redis to switch on Redis and use it in development for turbo streams
  apply C:/Ruby30-x64/lib/ruby/gems/3.0.0/gems/stimulus-rails-1.3.0/lib/install/stimulus_with_importmap.rb
Create controllers directory

```

```

Create controllers directory
  create app/javascript/controllers
  create app/javascript/controllers/index.js
  create app/javascript/controllers/application.js
  create app/javascript/controllers/hello_controller.js
Import Stimulus controllers
  append app/javascript/application.js
Pin Stimulus
Appending: pin "@hotwired/stimulus", to: "stimulus.min.js", preload: true
  append config/importmap.rb
Appending: pin "@hotwired/stimulus-loading", to: "stimulus-loading.js", preload: true
  append config/importmap.rb
Pin all controllers
Appending: pin_all from "app/javascript/controllers", under: "controllers"
  append config/importmap.rb
  run bundle install
Bundle complete! 14 Gemfile dependencies, 83 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
  run bundle lock --add-platform=x86_64-linux
Writing lockfile to C:/Windows/System32/todo_app/Gemfile.lock

C:\Windows\System32>

```

Ahora que tenemos el framework de nuestra aplicación, es hora de definir los modelos de aplicación. Se creará la clase “todo”.

Cambio el directorio a “todo\_app”, luego escribo el siguiente comando “rails generate scaffold todo description:string”, así:

```
C:\Windows\System32>cd todo_app

C:\Windows\System32\todo_app>rails generate scaffold todo description:string
   invoke  active_record
   create  db/migrate/20231018142923_create_todos.rb
   create  app/models/todo.rb
   invoke  test_unit
   create  test/models/todo_test.rb
   create  test/fixtures/todos.yml
   invoke  resource_route
   route   resources :todos
   invoke  scaffold_controller
   create  app/controllers/todos_controller.rb
   invoke  erb
   create  app/views/todos
   create  app/views/todos/index.html.erb
   create  app/views/todos/edit.html.erb
   create  app/views/todos/show.html.erb
   create  app/views/todos/new.html.erb
   create  app/views/todos/_form.html.erb
   create  app/views/todos/_todo.html.erb
   invoke  resource_route
   invoke  test_unit
   create  test/controllers/todos_controller_test.rb
   create  test/system/todos_test.rb
   invoke  helper
   create  app/helpers/todos_helper.rb
   invoke  test_unit
   invoke  jbuilder
   create  app/views/todos/index.json.jbuilder
   create  app/views/todos/show.json.jbuilder
   create  app/views/todos/_todo.json.jbuilder

C:\Windows\System32\todo_app>
```

Podemos observar una lista de resultados tanto para create<nombre de archivo> como para invoke<generator>.

## Base de datos

Crearé una base de datos para poder conservar cualquier información que la aplicación quiera almacenar.

Dentro de “todo\_app” debo escribir (estando en el símbolo del sistema) el siguiente comando “bundle exec rake db:migrate”, así:

```
C:\Windows\System32\todo_app>bundle exec rake db:migrate
== 20231018142923 CreateTodos: migrating =====
-- create_table(:todos)
   -> 0.0030s
== 20231018142923 CreateTodos: migrated (0.0037s) =====

C:\Windows\System32\todo_app>
```

Ya que tenemos la base de datos creada vamos a insertar algunos registros. Abrimos db/seeds.rb en un editor de texto de nuestra elección (en mi caso será VSC) y luego pegaremos las dos líneas siguientes e la parte inferior del archivo, debajo de los comentarios, así:

```
C: > Windows > System32 > todo_app > db > seeds.rb
1  # This file should ensure the existence of records required to run the application in ev
2  # development, test). The code here should be idempotent so that it can be executed at a
3  # The data can then be loaded with the bin/rails db:seed command (or created alongside t
4  #
5  # Example:
6  #
7  #  ["Action", "Comedy", "Drama", "Horror"].each do |genre_name|
8  #    MovieGenre.find_or_create_by!(name: genre_name)
9  #  end
10  Todo.create(description: "Hello CC3S2- Kids")
11
12  Todo.create(description: " Do the assignments kid ")
```

Luego insertamos los datos en la base de datos:

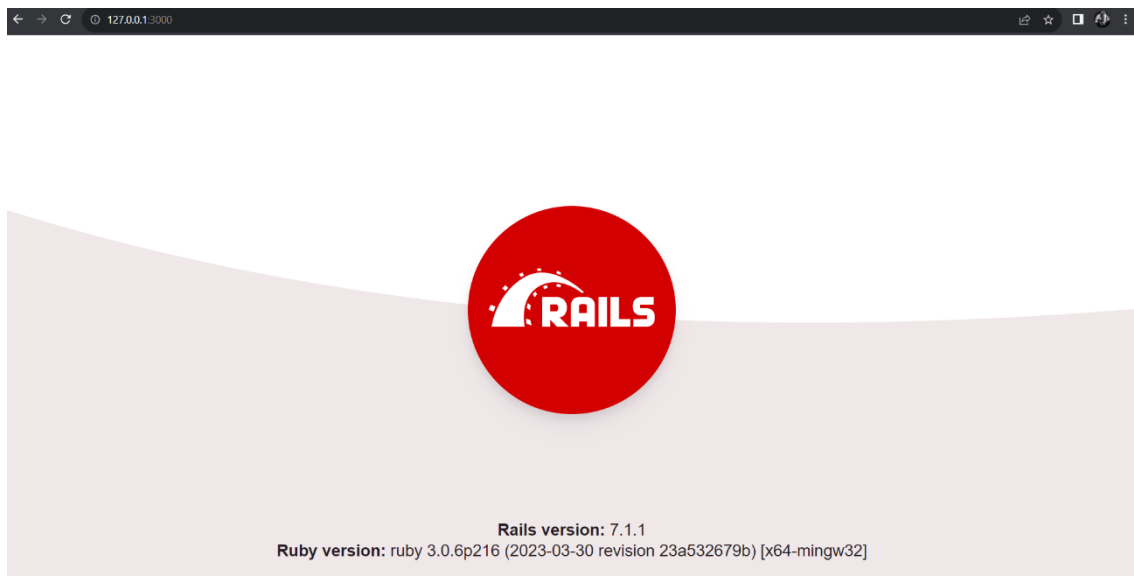
```
C:\Windows\System32\todo_app\db>bundle exec rake db:migrate
(in C:/Windows/System32/todo_app)

C:\Windows\System32\todo_app\db>
```

Ejecutamos el servidor de rails para iniciar el servidor y ejecutar nuestra aplicación:

```
C:\Windows\System32\todo_app\db>rails server
=> Booting Puma
=> Rails 7.1.1 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: 6.4.0 (ruby 3.0.6-p216) ("The Eagle of Durango")
* Min threads: 5
* Max threads: 5
* Environment: development
* PID: 20356
* Listening on http://[::1]:3000
* Listening on http://127.0.0.1:3000
Use Ctrl-C to stop
```

En nuestro navegador colocamos "http://127.0.0.1:3000"



Y en nuestro Símbolo del sistema aparece esto:

```
Started GET "/" for 127.0.0.1 at 2023-10-18 09:44:13 -0500
ActiveRecord::SchemaMigration Load (0.2ms) SELECT "schema_migrations"."version" FROM "schema_migrations" ORDER BY "sc
hema_migrations"."version" ASC
Processing by Rails::WelcomeController#index as HTML
Rendering C:/Ruby30-x64/lib/ruby/gems/3.0.0/gems/railties-7.1.1/lib/rails/templates/rails/welcome/index.html.erb
Rendered C:/Ruby30-x64/lib/ruby/gems/3.0.0/gems/railties-7.1.1/lib/rails/templates/rails/welcome/index.html.erb (Durat
ion: 1.6ms | Allocations: 577)
Completed 200 OK in 154ms (Views: 35.5ms | ActiveRecord: 0.0ms | Allocations: 10523)
```

Muestro todas las rutas generadas por el comando scaffold:

```
C:\Windows\System32\todo_app\>rails routes

Prefix Verb   URI Pattern                                     Controller#Action
todos GET      /todos(.:format)                             todos#index
POST       /todos(.:format)                             todos#create
new_todo GET      /todos/new(.:format)                         todos#new
edit_todo GET      /todos/:id/edit(.:format)                   todos#edit
todo GET     /todos/:id(.:format)                         todos#show
PATCH     /todos/:id(.:format)                         todos#update
PUT        /todos/:id(.:format)                         todos#update
DELETE     /todos/:id(.:format)                         todos#destroy
rails_health_check GET /up(.:format)                               rails/health#show
turbo_recede_historical_location GET /recede_historical_location(.:format) turbo/native/navigation#recede
turbo_resume_historical_location GET /resume_historical_location(.:format) turbo/native/navigation#resume
turbo_refresh_historical_location GET /refresh_historical_location(.:format) turbo/native/navigation#refresh
rails_postmark_inbound_emails POST /rails/action_mailbox/postmark/inbound_emails(.:format) action_mailbox/ingresses/postmark/inbound_emails#create
rails_relay_inbound_emails POST /rails/action_mailbox/relay/inbound_emails(.:format) action_mailbox/ingresses/relay/inbound_emails#create
rails_sendgrid_inbound_emails POST /rails/action_mailbox/sendgrid/inbound_emails(.:format) action_mailbox/ingresses/sendgrid/inbound_emails#create
rails_mandrill_inbound_health_check GET /rails/action_mailbox/mandrill/inbound_emails(.:format) action_mailbox/ingresses/mandrill/inbound_emails#health_check
rails_mandrill_inbound_emails POST /rails/action_mailbox/mandrill/inbound_emails(.:format) action_mailbox/ingresses/mandrill/inbound_emails#create
rails_mailgun_inbound_emails POST /rails/action_mailbox/mailgun/inbound_emails/mime(.:format) action_mailbox/ingresses/mailgun/inbound_emails#create
rails_conductor_inbound_emails GET /rails/conductor/action_mailbox/inbound_emails(.:format) rails/conductor/action_mailbox/inbound_emails#index
new_rails_conductor_inbound_email GET /rails/conductor/action_mailbox/inbound_emails(.:format) rails/conductor/action_mailbox/inbound_emails#create
rails_conductor_inbound_email GET /rails/conductor/action_mailbox/inbound_emails/:id(.:format) rails/conductor/action_mailbox/inbound_emails#show
rails_conductor_inbound_email_source POST /rails/conductor/action_mailbox/inbound_emails/sources/new(.:format) rails/conductor/action_mailbox/inbound_emails/sources#new
rails_conductor_inbound_email_sources POST /rails/conductor/action_mailbox/inbound_emails/sources(.:format) rails/conductor/action_mailbox/inbound_emails/sources#create
rails_conductor_inbound_email_reroute POST /rails/conductor/action_mailbox/inbound_email_id/reroute(.:format) rails/conductor/action_mailbox/reroutes#create
rails_conductor_inbound_email_incinerate POST /rails/conductor/action_mailbox/inbound_email_id/incinerate(.:format) rails/conductor/action_mailbox/incinerates#create
rails_service_blob GET /rails/active_storage/blobs/redirect/:signed_id/*filename(.:format) active_storage/blobs/redirect#show
rails_service_blob_proxy GET /rails/active_storage/blobs/proxy/:signed_id/*filename(.:format) active_storage/blobs/proxy#show
rails_blob_representation GET /rails/active_storage/representations/redirect/:signed_blob_id/:variation_key/*filename(.:format) active_storage/representations/redirect#show
rails_blob_representation_proxy GET /rails/active_storage/representations/proxy/:signed_blob_id/:variation_key/*filename(.:format) active_storage/representations/proxy#show
rails_disk_service GET /rails/active_storage/disk/:encoded_key/*filename(.:format) active_storage/disk#show
update_rails_disk_service PUT /rails/active_storage/disk/:encoded_token(.:format) active_storage/disk#update
rails_direct_uploads POST /rails/active_storage/direct_uploads(.:format) active_storage/direct_uploads#create
```

## Más migraciones

Agregaremos una ruta en “config/routes.rb” y dentro del cuerpo route.draw debo colocar la siguiente línea “get ‘/hello’, to: ‘todos#hello’”, así:

```
C: > Windows > System32 > todo_app > config > routes.rb

1  Rails.application.routes.draw do
2    resources :todos
3    # Define your application routes per the DSL in https://guides.rubyonrails.org/routing
4
5    # Reveal health status on /up that returns 200 if the app boots with no exceptions, ot
6    # Can be used by load balancers and uptime monitors to verify that the app is live.
7    get "up" => "rails/health#show", as: :rails_health_check
8    get '/hello', to: 'todos#hello'
9    # Defines the root path route ("/")
10   # root "posts#index"
11 end
12
```

Creamos un archivo en el directorio app/views/todos llamado “hello.html.erb”, así y en pp/controllers/todos\_controller.r agregamos las líneas que se nos indica, así:

```
C: > Windows > System32 > todo_app > app > controllers > todos_controller.rb
57   end
58   end
59
60   private
61     # Use callbacks to share common setup or constraints between actions.
62     def set_todo
63       @todo = Todo.find(params[:id])
64     end
65
66     # Only allow a list of trusted parameters through.
67     def todo_params
68       params.require(:todo).permit(:description)
69     end
70   end
71
72   def hello
73
74     respond_to do |format|
75
76       format.html { render :hello }
77
78       format.json { render json: "hello world!" }
79
80     end
81
82   end
```