Ruby on Rails. Введение

История создания, особенности, популярные проекты на Ruby on Rails, создание базового приложения

Фреймворк Ruby on Rails



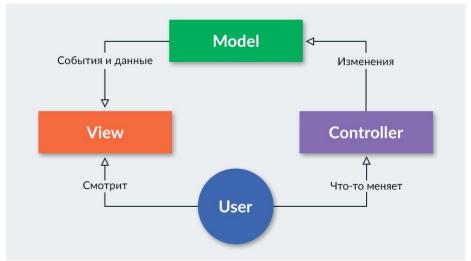
- к 2011 году были реализованы практически все наиболее перспективные технологии (TDD, MVC, AJAX);
- фреймворк продолжает развиваться и на данный момент актуальная версия 7.0.3.1

- фреймворк был создан в 2004 году в компании 37signals (сейчас Basecamp);
- создан в процессе работы над программой управления проектами;
- автор проекта: Давид Хейнемейер Ханссон.

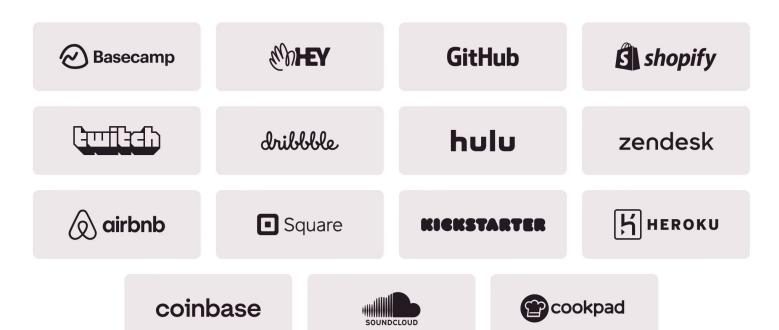


Особенности фреймворка

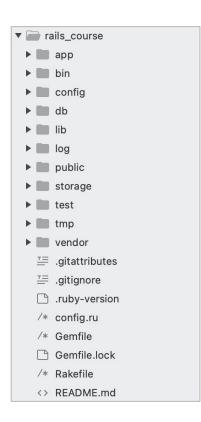
- реализован паттерн веб-приложений Model-View-Controller;
- по максимуму используются механизмы повторного использования для избежания дублирования кода (Don't Repeat Yourself);
- используется принцип Convention over configuration;
- обеспечивается хорошая безопасность проекта (защита от SQL-инъекций, Cross-Site Scripting атаки).



Популярные проекты на RoR



Структура Rails-проекта



```
rails course
▼ app
     assets
 ▶ concerns
    /* application controller.rb
 helpers
 ▼ iobs
    /* application_job.rb
 mailers
 ▼ models
   ▶ concerns
    /* application_record.rb
 ▼  wiews
  ▼  avouts
       application.html.erb
       mailer.html.erb
       mailer.text.erb
```

```
▼ m rails course
                                 1 # SQLite. Versions 3.8.0 and up are supported.
 ▶ ■ app
                                          gem install sglite3
 ▼ 📄 bin
                                          Ensure the SQLite 3 gem is defined in your Gemfile
                                          gem "salite3"
    /* rake
                                 6 #
    setup
                                     default: &default
                                        adapter: sqlite3
 ▼ a config
                                        pool: <= ENV.fetch("RAILS MAX THREADS") { 5 } %>
   ▶ m environments
                                 10
                                        timeout: 5000
   ▶ initializers
                           0
                                11
                                      development:
   ▶ I locales
                                       <<: *default
    /* application.rb
                                        database: db/development.sqlite3
                                 14
    /* boot.rb
                           0
    /* cable.yml
                                16 # Warning: The database defined as "test" will be erased and
                                 17 # re-generated from your development database when you run "rake".
    credentials.yml.enc
                                 18 # Do not set this db to the same as development or production.
    /* database.vml
                                19 test:
    /* environment.rb
                           0
                                20
                                       <<: *default
                                21
                                        database: db/test.sglite3
    naster.kev
    /* puma.rb
                                 23
                                      production:
    /* routes.rb
                           0
                                24
                                        <<: *default
    /* storage.yml
                           0
                                25
                                        database: db/production.sglite3
```

Команда для создания проекта

```
→ ~ rails new --help
  rails new APP_PATH [options]
Options:
      [--skip-namespace], [--no-skip-namespace]
                                                             # Skip namespace (affects only isolated engines)
      [--skip-collision-check], [--no-skip-collision-check] # Skip collision check
 -r, [--ruby=PATH]
                                                             # Path to the Ruby binary of your choice
                                                             # Default: /Users/alex/.rvm/rubies/ruby-3.1.1/bin/ruby
  -m, [--template=TEMPLATE]
                                                             # Path to some application template (can be a filesystem path or URL)
                                                             # Preconfigure for selected database (options: mysql/postgresql/sqlite3/oracle/sqlserver/jdbcmysql/jdbcsqlite3/jd
  -d, [--database=DATABASE]
bcpostgresql/jdbc)
                                                             # Default: salite3
  -G, [--skip-git], [--no-skip-git]
                                                             # Skip .aitianore file
      [--skip-keeps], [--no-skip-keeps]
                                                             # Skip source control .keep files
  -M, [--skip-action-mailer], [--no-skip-action-mailer]
                                                             # Skip Action Mailer files
      [--skip-action-mailbox], [--no-skip-action-mailbox]
                                                            # Skip Action Mailbox gem
      [--skip-action-text], [--no-skip-action-text]
                                                             # Skip Action Text gem
  -0, [--skip-active-record], [--no-skip-active-record]
                                                            # Skip Active Record files
      [--skip-active-job], [--no-skip-active-job]
                                                             # Skip Active Job
      Γ--skip-active-storage]. Γ--no-skip-active-storage]
                                                            # Skip Active Storage files
  -C, [--skip-action-cable], [--no-skip-action-cable]
                                                             # Skip Action Cable files
  -A, [--skip-asset-pipeline], [--no-skip-asset-pipeline]
                                                            # Indicates when to generate skip asset pipeline
  -a, [--asset-pipeline=ASSET_PIPELINE]
                                                             # Choose your asset pipeline [options: sprockets (default), propshaft]
                                                             # Default: sprockets
  -J, [--skip-javascript], [--no-skip-javascript]
                                                             # Skip JavaScript files
      [--skip-hotwire], [--no-skip-hotwire]
                                                             # Skip Hotwire integration
      [--skip-jbuilder], [--no-skip-jbuilder]
                                                             # Skip jbuilder gem
  -T, [--skip-test], [--no-skip-test]
                                                             # Skip test files
      [--skip-system-test], [--no-skip-system-test]
                                                            # Skip system test files
      [--skip-bootsnap], [--no-skip-bootsnap]
                                                             # Skip bootsnap gem
      [--dev], [--no-dev]
                                                            # Set up the application with Gemfile pointing to your Rails checkout
      [--edge], [--no-edge]
                                                            # Set up the application with Gemfile pointing to Rails repository
  --master, [--main], [--no-main]
                                                             # Set up the application with Gemfile pointing to Rails repository main branch
      [--rc=RC]
                                                            # Path to file containing extra configuration options for rails command
      [--no-rc], [--no-no-rc]
                                                            # Skip loading of extra configuration options from .railsrc file
      [--api], [--no-api]
                                                             # Preconfigure smaller stack for API only apps
      [--minimal], [--no-minimal]
                                                             # Preconfigure a minimal rails app
  -i. Γ--iavascript=JAVASCRIPT]
                                                             # Choose JavaScript approach [options: importmap (default), webpack, esbuild, rollup]
                                                             # Default: importmap
  -c, [--css=CSS]
                                                             # Choose CSS processor [options: tailwind, bootstrap, bulma, postcss, sass... check https://qithub.com/rails/cssb
undling-rails]
  -B, [--skip-bundle], [--no-skip-bundle]
                                                            # Don't run bundle install
```

Доступные команды в проекте

```
→ rails course ait:(main) x rails --help
The most common rails commands are:
aenerate
             Generate new code (short-cut alias: "q")
             Start the Rails console (short-cut alias: "c")
console
             Start the Rails server (short-cut alias: "s")
 server
             Run tests except system tests (short-cut alias: "t")
 test
 test:system Run system tests
 dbconsole Start a console for the database specified in config/database.yml
             (short-cut alias: "db")
             Create a new Rails application. "rails new my_app" creates a
new
             new application called MyApp in "./my_app"
plugin new Create a new Rails railtie or engine
All commands can be run with -h (or --help) for more information.
In addition to those commands, there are:
 about
 action_mailbox:ingress:exim
 action_mailbox:ingress:postfix
 action mailbox:inaress:amail
 action mailbox:install
 action_mailbox:install:migrations
 action text:install
 action_text:install:miarations
 active_storage:install
 app:template
 app:update
 assets:clean[keep]
 assets:clobber
 assets:environment
 assets:precompile
 cache_digests:dependencies
 cache_diaests:nested_dependencies
 credentials:diff
 credentials:edit
 credentials:show
 db:create
 db:drop
 db:encryption:init
 db:environment:set
 db:fixtures:load
 db:migrate
 db:miarate:down
```

```
→ rails course ait:(main) x rails generate --help
Usage: rails generate GENERATOR [gras] [options]
General options:
  -h, Γ--helpl
                  # Print generator's options and usage
  -p, [--pretend] # Run but do not make any changes
  -f. Γ--forcel # Overwrite files that already exist
                  # Skip files that already exist
  -s, [--skip]
                  # Suppress status output
  -q, [--quiet]
Please choose a generator below.
Rails:
  application_record
  benchmark
  channel
  controller
  aenerator
  helper
  integration_test
  ibuilder
  iob
  mailbox
  mailer
  miaration
  model
  resource
  scaffold.
  scaffold_controller
  system_test
  task
ActiveRecord:
  active_record:application_record
  active record:multi db
```

Команда запуска проекта

```
→ rails_course git:(main) x rails s --help
Usage:
  rails server -u [thin/puma/webrick] [options]
Options:
  -e, [--environment=ENVIRONMENT]
                                            # Specifies the environment to run this server under (test/development/production).
                                            # Runs Rails on the specified port - defaults to 3000.
  -p, [--port=port]
                                            # Binds Rails to the specified IP - defaults to 'localhost' in development and '0.0.0.0' in other environments'.
  -b, [--binding=IP]
  -c, [--config=file]
                                            # Uses a custom rackup configuration.
                                            # Default: config.ru
  -d, [--daemon], [--no-daemon]
                                            # Runs server as a Daemon.
                                            # Specifies the Rack server used to run the application (thin/puma/webrick).
  -u, [--using=name]
  -P, [--pid=PID]
                                            # Specifies the PID file - defaults to tmp/pids/server.pid.
  -C, [--dev-caching], [--no-dev-caching]
                                            # Specifies whether to perform caching in development.
      [--early-hints], [--no-early-hints]
                                            # Enables HTTP/2 early hints.
      [--loa-to-stdout], [--no-loa-to-stdout] # Whether to loa to stdout. Enabled by default in development when not daemonized.
→ rails_course git:(main) x rails c -h
Usaae:
  rails console [options]
Options:
  -e, [--environment=ENVIRONMENT] # Specifies the environment to run this console under (test/development/production).
  -s, [--sandbox], [--no-sandbox] # Rollback database modifications on exit.
```

Полезные ссылки

https://rubyonrails.org - Официальный сайт Ruby on Rails;

http://rusrails.ru/getting-started – Руководство по фреймворку.

Конец! Спасибо!