

Ruby, Rake & Rails

A Case of Too Many Rs

> **ruby**

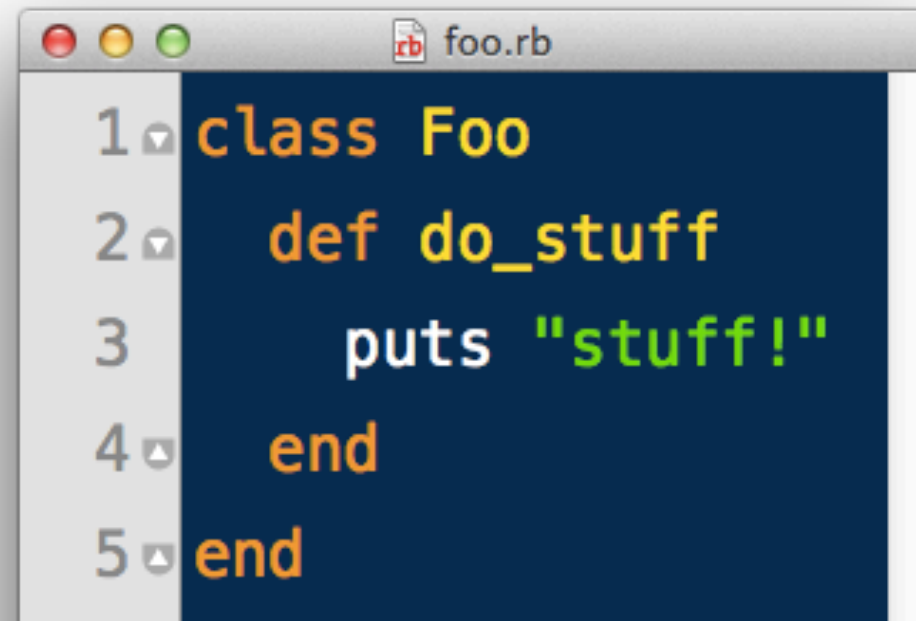
- General-purpose programming language (duh)
- Command: `interprets input as ruby`

> ruby “path/to/file”

Interpret “file” as Ruby

> ruby -e 'puts "Hi"'

Interpret 'puts "Hi"' as Ruby

A screenshot of a code editor window titled 'foo.rb'. The window has a dark blue background with light blue line numbers on the left. The code is written in a syntax-highlighted Ruby script. The code defines a class 'Foo' with a method 'do_stuff' that prints 'stuff!'.

```
1 class Foo
2   def do_stuff
3     puts "stuff!"
4   end
5 end
```

> ruby -r ./foo -e "Foo.new.do_stuff"

Require "foo", then:

Interpret "Foo.new.sdo_stuff" as Ruby

> rake

- is a Gem
- What's a gem?

> gem

“A gem is a ruby software package that contains a packaged Ruby application or library. The RubyGems software itself allows you to easily download, install, and manipulate gems on your system. – <http://guides.rubygems.org/what-is-a-gem/>

> gem

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> gem

- Gem is a package of Ruby code
- The package can be a library, executable application, or both
- Gemfile lists gem dependency for an application (see **bundler**)

> gem list a_gem

> gem install a_gem

> gem uninstall a_gem

> rake

- “This package contains Rake, a simple ruby build program with capabilities similar to make.”
- Key feature is defining “tasks” and their prerequisites
- Tasks can also be grouped into a “namespace”
- Convention: Rakefile in project root

> rake -T

```

/Users/joshua/Projects/Rails/my_rails_project — Rails/my_rails_project — zsh — 4

Rails → cd my_rails_project

my_rails_project → rake -T
rake about                # List versions of all Rails frameworks and the environment
rake assets:clean         # Remove compiled assets
rake assets:precompile    # Compile all the assets named in config.assets.precompile
rake db:create            # Create the database from DATABASE_URL or config/databa...
rake db:drop              # Drops the database using DATABASE_URL or the current R...
rake db:fixtures:load     # Load fixtures into the current environment's database
rake db:migrate           # Migrate the database (options: VERSION=x, VERBOSE=false)
rake db:migrate:status    # Display status of migrations
rake db:rollback          # Rolls the schema back to the previous version (specify...
rake db:schema:dump       # Create a db/schema.rb file that can be portably used a...
rake db:schema:load       # Load a schema.rb file into the database
rake db:seed              # Load the seed data from db/seeds.rb
rake db:setup             # Create the database, load the schema, and initialize w...
rake db:structure:dump    # Dump the database structure to db/structure.sql
rake db:version           # Retrieves the current schema version number
rake doc:app              # Generate docs for the app — also available doc:rails,...
```

```
Rakefile
1 task :ready_for_the_day => [:turn_off_alarm, :groom_myself,
2   puts "Ready for the day!"
3 end
4
5 task :turn_off_alarm do
6   puts "Turned off alarm. Would have liked 5 more minutes, 1
7 end
8
9 task :groom_myself do
10  puts "Brushed teeth."
11  puts "Showered."
12  puts "Shaved."
13 end
14
15 task :make_coffee do
16  cups = ENV["COFFEE_CUPS"] || 2
17  puts "Made #{cups} cups of coffee. Shakes are gone."
18 end
19
20 task :walk_dog do
21  puts "Dog walked."
22 end
23
```

Line: 1 Column: 1 Ruby Soft Tabs: 2

```
Rakefile
1 task :ready_for_the_day => [:turn_off_alarm, :groom_myself,
2   puts "Ready for the day!"
3 end
4
5 task :turn_off_alarm do
6   puts "Turned off alarm. Would have liked 5 more minutes, though."
7 end
8
9 task :groom_myself do
10  puts "Brushed teeth."
```

```
/Users/joshua/Projects/Ruby — Projects/Ruby — zsh — 2
Ruby →
Ruby → rake ready_for_the_day
Turned off alarm. Would have liked 5 more minutes, though.
Brushed teeth.
Showered.
Shaved.
Made 2 cups of coffee. Shakes are gone.
Dog walked.
Ready for the day!
Ruby →
```

> rails

- Rails is a gem, or maybe a lot of gems

→ **gem install rails:**

i18n, multi_json, tzinfo, atomic, thread_safe, activesupport,
builder, rack, rack-test, erubis, actionpack, activemodel, arel,
activerecord-deprecated_finders, activerecord, mime-types,
polyglot, treetop, mail, actionmailer, thor, railties, hike,
tilt, sprockets, sprockets-rails, rails

...

27 gems installed

> rails

- Pre Rails v3
- Generated new Rails application
- Many rake tasks
- Other commands found in **script**
script/generate
script/console

> rails

- Rails v3+
- **rails new** => generate a new application
- Still many rake tasks
- Commands from **script** now part of **rails** command:
 - > rails generate
 - > rails console

> **irb**

- Interactive Ruby
- Sometimes aka “REPL”
 - Read
 - Evaluate
 - Print
 - Loop

> rails console

- IRB + rails + your app
- Development environment by default

> **RAILS_ENV=test rails console**

remember that test db is cleared between tests

> **RAILS_ENV=production rails console**

but be CAREFUL!!!

```
junk
1 #!/usr/bin/env ruby
2
3 def move_to_trash(filename)
4   puts "Moving #{filename}..."
5 end
6
7 filename = ARGV.last
8 move_to_trash filename
```

```
Ruby → ls -l junk
-rw-r--r--@ 1 joshua  staff   128B Aug 12 15:35 junk
```

```
Ruby → chmod +x junk
```

```
Ruby → ~/Projects/Ruby/junk garbage_file.txt
Moving garbage_file.txt...
```

```
Ruby →
```

```
#!/usr/bin/env ruby  
> chmod +x file  
path/to/file
```