

Rails 4 Quickly

Bala Paranj

Running the Server

Objective

- To run your rails application on your machine.

Steps

Step 1

Check the versions of installed ruby, rails and ruby gems by running the following commands in the terminal:

```
$ ruby -v
ruby 2.0.0p247 (2013-06-27 revision 41674) [x86_64-darwin12.5.0]
```

```
$ rails -v
Rails 4.0.0
```

```
$ gem env
RUBYGEMS VERSION: 2.1.5
```

Step 2

Change directory to where you want to work on new projects.

```
$ cd projects
```

Step 3

Create a new Rails project called blog by running the following command.

```
$ rails new blog
```

Step 4

Open a terminal and change directory to the blog project.

```
$ cd blog
```

Step 5

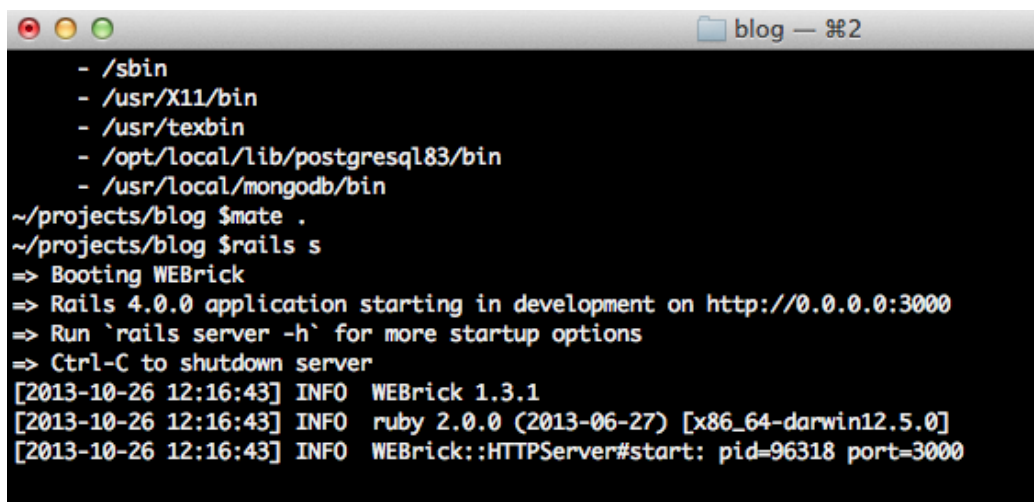
Open the blog project in your favorite IDE. For textmate :

```
$ mate .
```

Step 6

Run the rails server:

```
$ rails s
```

A screenshot of a terminal window titled "blog — 2". The terminal shows the following output:

```
- /sbin
- /usr/X11/bin
- /usr/texbin
- /opt/local/lib/postgresql83/bin
- /usr/local/mongodb/bin
~/projects/blog $mate .
~/projects/blog $rails s
=> Booting WEBrick
=> Rails 4.0.0 application starting in development on http://0.0.0.0:3000
=> Run `rails server -h` for more startup options
=> Ctrl-C to shutdown server
[2013-10-26 12:16:43] INFO  WEBrick 1.3.1
[2013-10-26 12:16:43] INFO  ruby 2.0.0 (2013-06-27) [x86_64-darwin12.5.0]
[2013-10-26 12:16:43] INFO  WEBrick::HTTPServer#start: pid=96318 port=3000
```

Figure 1: Rails Server

Step 7

Open a browser window and enter `http://localhost:3000`

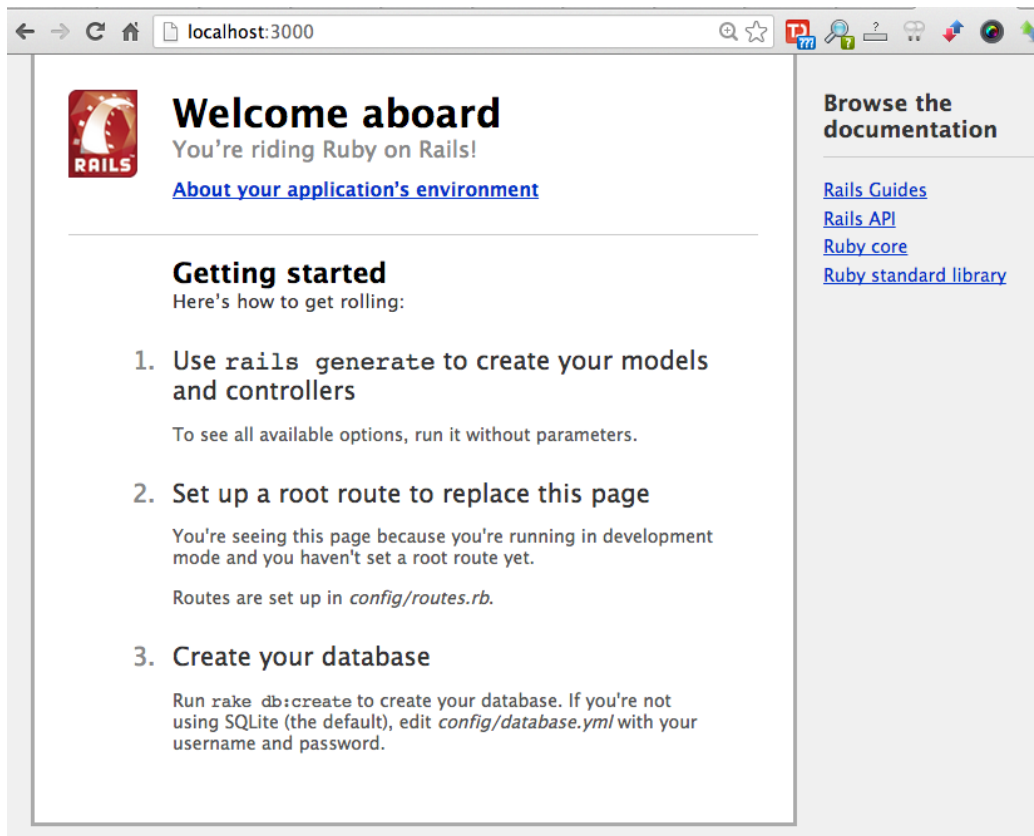


Figure 2: Welcome Aboard

Step 8


You can shutdown your server by pressing Control+C. If you use Control+Z, you will send the process to the background which means it will still be running but the terminal will be available for you to enter other commands. If you want to see the server running to see the log messages you can do :

```
$ fg
```

which will bring the background process to the foreground.

Step 9

Click on the 'About' link and check the versions of software installed. If the background of the about section is yellow, installation is fine. If it is red then something is wrong with the installation.



Welcome aboard

You're riding Ruby on Rails!

[About your application's environment](#)

| | |
|------------------------|-----------------------------|
| Ruby version | 2.0.0 (x86_64-darwin12.5.0) |
| RubyGems version | 2.1.5 |
| Rack version | 1.5 |
| Rails version | 4.0.0 |
| JavaScript Runtime | JavaScriptCore |
| Active Record version | 4.0.0 |
| Action Pack version | 4.0.0 |
| Action Mailer version | 4.0.0 |
| Active Support version | 4.0.0 |

ActionDispatch::Static
Rack::Lock

<ActiveSupport::Cache::Strategy::LocalCache::Middleware:0x0000010397fb4
Rack::Runtime
Rack::MethodOverride
ActionDispatch::RequestId
Rails::Rack::Logger
ActionDispatch::ShowExceptions

Figure 3: About Environment

Explanation

The rails generator automatically runs the Bundler command `bundle` to install your application dependencies by reading the Gemfile. The Gemfile contains all the gems that your application needs. `rails s` (`s` is a short-cut for `server`) runs your server on your machine on port 3000.

Hello Rails

Objective

- To create a home page for your web application.

Steps

Step 1

Open the config/routes.rb file in your IDE, routes.rb defines the routes that is installed on your web application. Rails will recognize the routes you define in this configuration file.

Step 2

Look for the line :

```
# root 'welcome#index'
```

Step 3

Uncomment that line by removing #.

```
root 'welcome#index'
```

The method root() takes a string parameter. In this case it maps the home page of your site to welcome controller (class), index action (method).

Step 4

Go to the terminal and change directory to the blog project and run:

```
rake routes
```

```
~/projects/blog $rake routes
Prefix Verb URI Pattern Controller#Action
root GET / welcome#index
~/projects/blog $
```

Figure 4: Rake Output

The output of this command shows you the installed routes. Rails will be able to recognize the GET request for welcome page.

The output has four columns, namely Prefix, Verb, URI Pattern and Controller#Action.

Prefix is the name of the helper that you can use in your view and controller to take the user to a given view or controller. In this case it is `root_path` or `root_url` that is mapped to your home page.

Verb is the Http Verb such as GET, POST, PUT, DELETE etc.

URI Pattern is what you see in the browser URL. In this case, it is `www.example.com`

Step 5

Go to the browser and reload the page : `http://localhost:3000`

We see the uninitialized constant `WelcomeController` error. This happens because we don't have a welcome controller.

Step 6

Go the root of the project and type:

```
$ rails g controller welcome index
```

`rails` command takes the arguments `g` for generate, then the controller name and the action.

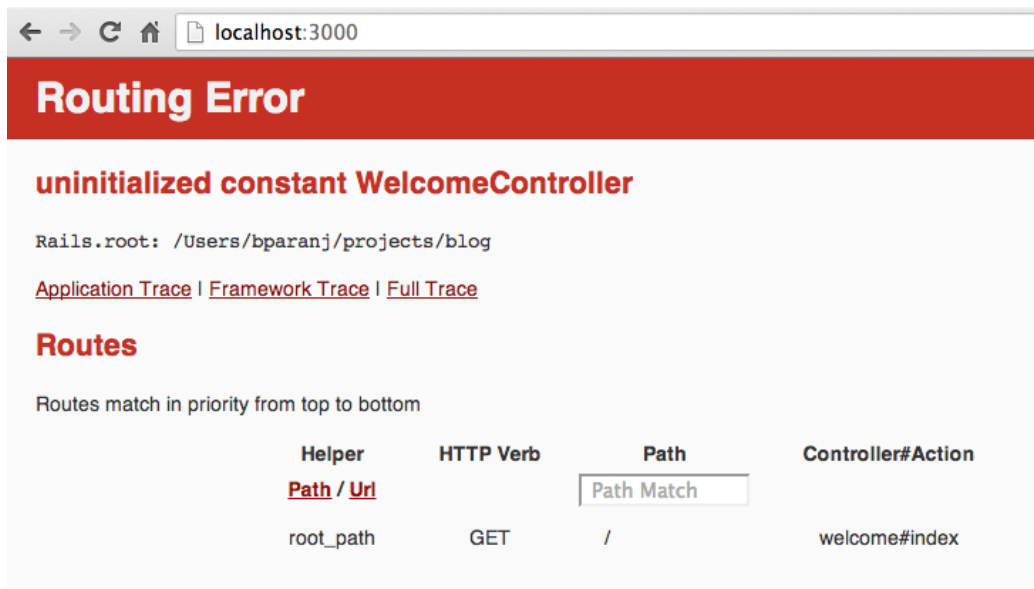


Figure 5: Create Controller

```
ruby  ...  bash
~/projects/blog $ rails g controller welcome index
  create  app/controllers/welcome_controller.rb
  route  get "welcome/index"
  invoke  erb
  create  app/views/welcome
  create  app/views/welcome/index.html.erb
  invoke  test_unit
  create  test/controllers/welcome_controller_test.rb
  invoke  helper
  create  app/helpers/welcome_helper.rb
  invoke  test_unit
  create  test/helpers/welcome_helper_test.rb
  invoke  assets
  invoke  coffee
  create  app/assets/javascripts/welcome.js.coffee
  invoke  scss
  create  app/assets/stylesheets/welcome.css.scss
~/projects/blog $
```

Figure 6: Create Controller

Step 7

Reload the web browser again. You will now see the following page:

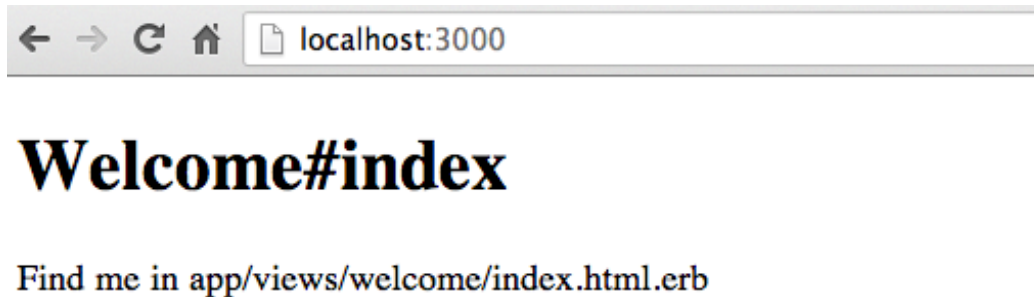


Figure 7: Welcome Index

Step 8

Go to `app/views/index.html.erb` and change it to 'Hello Rails' like this:

```
<h1>Hello Rails</h1>
```

Save the file.

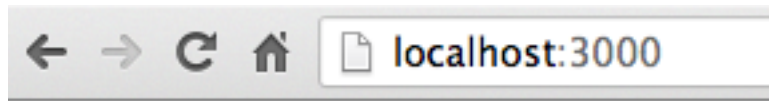
You can embed ruby in `.html.erb` files. In this case we have html only. We will see how to embed ruby in views in the next lesson.

Step 9

Reload the browser. Now you will see 'Hello Rails'.

Step 10

Open the `welcome_controller.rb` in `app/controllers` directory and look at the `index` action.



Hello Rails

Figure 8: Create Controller

Step 11

Look at the terminal where you have the rails server running, you will see the request shown in the following image:

| ruby | bash |
|---|------|
| <pre>Started GET "/" for 127.0.0.1 at 2013-10-26 12:40:21 -0700 Processing by WelcomeController#index as HTML Rendered welcome/index.html.erb within layouts/application (0.4ms) Completed 200 OK in 777ms (Views: 775.8ms ActiveRecord: 0.0ms)</pre> | |

Figure 9: Server Output

You can see that the browser made a GET request for the resource ‘/’ which is the home page of your site. The request was processed by the server where Rails recognized the request and it routed the request to the welcome controller index action. Since we did not do anything in the index action, Rails looks for the view that has the same name as the action and renders that view. In this case, it is index.html.erb.

Exercise

Can you go to <http://localhost:3000/welcome/index> and explain why you see the contents shown in the page?

Before you go to the next page and read the answer, make an attempt to answer this question.

Answer : You will see the same ‘Hello Rails’ page. Because if you check the rails server log you can see it made a request : GET ‘/welcome/index’ and if you look at the routes.rb file, you see :

```
get "welcome/index"
```

This definition is used by the Rails router to handle this request. It knows the URI pattern of the format ‘welcome/index’ with http verb GET must be handled by the welcome controller index action.

Delete the get “welcome/index” line in the routes.rb file. Reload the page : <http://localhost:3000/welcome/index>. You will now see the error page:

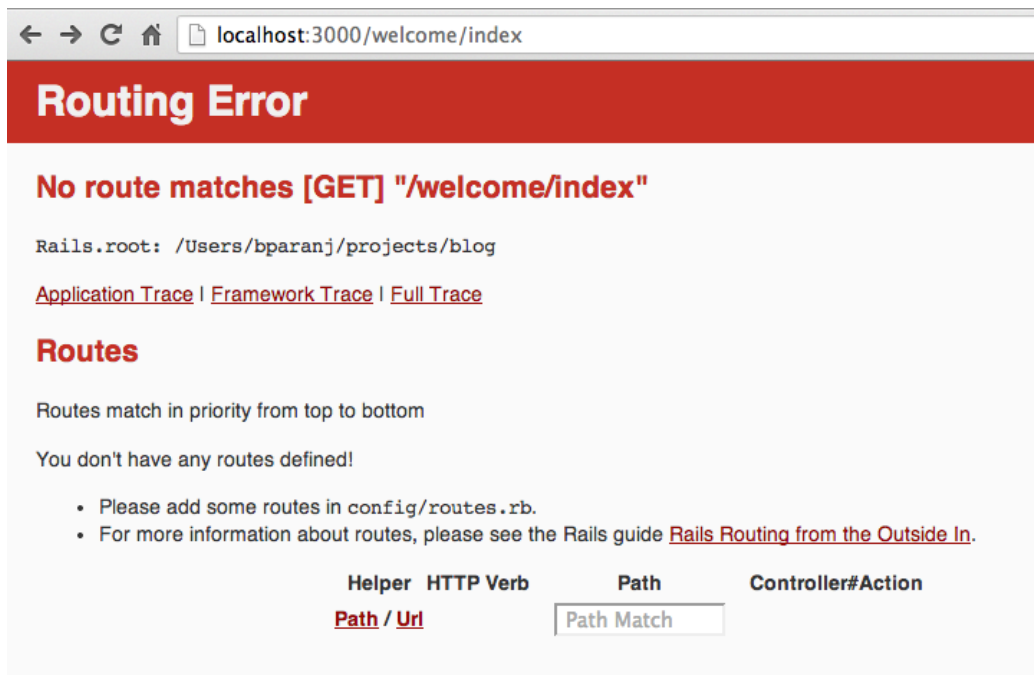


Figure 10: Welcome Index

Summary

In this lesson we wrote a simple Hello Rails program. We saw how the view and controller work in Rails to handle browser requests. We have seen just

the VC part of MVC framework. We will see how the model fits in the MVC framework in the next lesson.