

Training Guide

I - Set up Ruby on Rails Development Environment

Ubuntu 16.04 LTS

RVM - Ruby Version Manager

Ruby 2.4.2

Rails 5.1.4

Git

Heroku Toolbelt

Sublime Text 3

Open Terminal to setup for Sh

First change some settings in Gnome Terminal. Go to *Edit -> Profile Preferences -> Title and Command* and check the "Run Command as login shell" box.

1. Install Ruby on Rails

Make sure all packages are up to date

```
sudo apt-get update
```

Install curl (if not have)

```
sudo apt-get install curl
```

And some dependencies for Ruby

```
sudo apt-get install zlib1g-dev build-essential libssl-dev  
libreadline-dev libyaml-dev libsqlite3-dev sqlite3 libxml2-dev  
libxslt1-dev libcurl4-openssl-dev python-software-properties  
libffi-dev
```

Install rvm, ruby and set default version

```
sudo apt-get install libgdbm-dev libncurses5-dev automake libtool  
bison libffi-dev
```

```
gpg --keyserver hkp://keys.gnupg.net --recv-keys  
409B6B1796C275462A1703113804BB82D39DC0E3
```

```
curl -sSL https://get.rvm.io | bash -s stable
```

```
source ~/.rvm/scripts/rvm
```

```
rvm install 2.4.2
```

```
rvm use 2.4.2 --default
```

```
ruby -v
```

It's time to install Rails 5.1.4 without ri and rdoc (which you actually never use)

```
gem install rails --version 5.1.4 --no-ri --no-rdoc
```

Since Rails ships with so many dependencies these days, we're going to need to install a Javascript runtime like NodeJS. This lets you use Coffeescript and the `Asset Pipeline` in Rails which combines and minifies your javascript to provide a faster production environment.

To install NodeJS, we're going to add it using the official repository:

```
curl -sL https://deb.nodesource.com/setup_4.x | sudo -E bash -
```

```
sudo apt-get install -y nodejs
```

Running the following command to make sure Ruby on Rails has been installed successfully

```
rails new demo
```

```
cd demo
```

```
rails s
```

Open browser, visit: <http://localhost:3000>, if an web page is open then you are success.

Fix a problem that makes "rails not found" error if it occurs:

<https://rvm.io/integration/gnome-terminal>

2. Install Git

Create an account on Github @ <https://github.com/>

Install Git

```
sudo apt-get install git-core
```

Git basic config

```
git config --global color.ui true
```

```
git config --global user.name "Your Name"
```

```
git config --global user.email newuser@example.com
```

Your email should be the same as your Github account. You may set it differently, but it will introduce some additional work.

You should use ssh-key to authentication each time you pull from or push to Github.

```
ssh-keygen -t rsa -b 4096 -C "YOUR@EMAIL.com"
```

The next step is to take the newly generated SSH key and add it to your Github account. You want to copy and paste the output of the following command and **paste it here**.

```
cat ~/.ssh/id_rsa.pub
```

Once you've done this, you can check and see if it worked:

```
ssh -T git@github.com
```

You should get a message like this:

```
Hi excid3! You've successfully authenticated, but GitHub does not
provide shell access.
```

3. Install Heroku Toolbelt

Create an account on Heroku @ <https://www.heroku.com/>

Install Heroku Toolbelt follow the instruction at <https://toolbelt.heroku.com/>

After successfully install Heroku Toolbelt, run the following command:

```
heroku login
```

4. Install Sublime Text 3

```
sudo add-apt-repository ppa:webupd8team/sublime-text-3
```

```
sudo apt-get update
```

```
sudo apt-get install sublime-text-installer
```

You can launch Sublime Text 3 from Terminal by typing `subl`

II - Learn Ruby on Rails

1. Ruby on Rails tutorials

Ruby on Rails Tutorial: <http://ruby.railstutorial.org/>

Good References:

<http://guides.rubyonrails.org/>

<http://api.rubyonrails.org/>

<http://google.com>

2. Rails & RESTful

Basic about RESTful Web services

<http://www.ibm.com/developerworks/vn/library/ws-restful/>

References

Representational State Transfer (REST):

http://www.ics.uci.edu/~fielding/pubs/dissertation/rest_arch_style.htm

RESTful Web Services book

<http://shop.oreilly.com/product/9780596529260.do>

III - Learn Git

1. Documentation

Pro Git book: <http://git-scm.com/book>

Slide: <https://goo.gl/lulLrq>

2. Framgia pull-request procedure (True way)

1. Before working on a new task

```
git checkout develop
git pull framgia develop
```
2. Create a new branch for the task

```
git checkout -b task-name
```
3. When ready for commit

```
git add .
git commit -m "descriptive message about this commit"
```
4. Checkout to the develop branch to pull newest code

```
git checkout develop
git pull framgia develop
```

5. Return to the working branch and rebase

```
git checkout task-name
git rebase develop
```
6. If there are conflicts, go to conflict files and fix them, after finish, continue rebase

```
git add .
git rebase --continue
```
7. Push the commit to Github account

```
git push origin task-name
```

IV - MySQL

```
sudo apt-get install mysql-server mysql-client libmysqlclient-dev
```

Installing the libmysqlclient-dev gives you the necessary files to compile the mysql2 gem which is what Rails will use to connect to MySQL when you setup your Rails app.

Learning MySQL: <http://student.agh.edu.pl/~gegotek/Learning%20MySQL%20V413HAV.pdf>

Introduction to SQL: <http://cs.lmu.edu/~ray/notes/introsql/>

No SQL: <http://cs.lmu.edu/~ray/notes/nosql/>

V - Coding Convention - Best Practices

Basic rules that you should follow in first place

- 80 chars rule (except view files)
- do not use `()` as possible

Links to Framgia Coding standard:

Ruby

<https://github.com/framgia/coding-standards/blob/master/vn/ruby/standard.md>

Ruby on Rails

<https://github.com/framgia/coding-standards/blob/master/vn/rails/standard.md>

VI - Others

Install Memcached

```
sudo apt-get install memcached
```

Install [ImageMagick](#)

```
sudo apt-get install imagemagick
```

Install [Redis](#)

<http://redis.io/download>

Devise gem

<http://devise.plataformatec.com.br/>

Simple example

https://github.com/jayshepherd/devise_example

Install Node.js

<https://github.com/joyent/node/wiki/Installing-Node.js-via-package-manager#ubuntu-mint>

How to Setup a Production Server for Rails 4

<http://robmcclarty.com/blog/how-to-setup-a-production-server-for-rails-4>