

```
=====
                                桃園Ruby on Rails讀書會 蘇介吾 104/12/11
```

■環境

ubuntu 14.04.03LTS + RVM + Ruby 2.2.0 + Rails 4.2.0

RoR + Apache2 + MySQL 安裝可以參考 <http://afgnsu.logdown.com>

■情境

假設要部屬的專案叫 forum，而且你有使用 Devise 套件當作註冊系統，先把專案下載到一般使用者的家目錄下（例：/home/patrick）：

```
cd
git clone https://github.com/afgnsu/forum.git #先下載專案
cd ~/forum

rvm install 2.2.0 #此處當作你是用 RVM 在管理Ruby on Rails的版本
rvm use 2.2.0
rvm create gemset rails420
rvm use 2.2.0@rails420 --default
gem install rails -v 4.2.0
ruby -v => 確定是 Ruby 2.2.0 版
rails -v => 確定是 Rails 4.2.0 版

bundle #安裝Gem套件
```

■步驟

(1).先檢查哪裡需要設定

```
grep -R ENV
=====
test/test_helper.rb:ENV['RAILS_ENV'] ||= 'test'
config/secrets.yml: secret_key_base: <%= ENV["SECRET_KEY_BASE"] %>
config/boot.rb:ENV['BUNDLE_GEMFILE'] ||= File.expand_path('../../Gemfile',
__FILE__)
config/environments/production.rb: config.serve_static_files = ENV
['RAILS_SERVE_STATIC_FILES'].present?
config/database.yml:# url: <%= ENV['DATABASE_URL'] %>
config/database.yml: password: <%= ENV['FORUM_DATABASE_PASSWORD'] %>
bin/bundle:ENV['BUNDLE_GEMFILE'] ||= File.expand_path('../../Gemfile', __FILE__)
=====
```

(2).產生密鑰 => RAILS_ENV=production rake secret

596a6c2ae5a9c3055b1cbef8c6e21421023c606da19c10f06ee869b62df810cf171df1f1e6b2392274baa0299

把密鑰值存到以下三處：

一. sudo vi /etc/apache2/envvars #給Apache2用的

```
=====
export
SECRET_KEY_BASE='596a6c2ae5a9c3055b1cbef8c6e21421023c606da19c10f06ee869b62df810cf171df1f1e6b2392274baa0299'
export FORUM_DATABASE_PASSWORD='123456'
export RAILS_SERVE_STATIC_FILES='true'
export RAILS_ENV='production'
=====
```

二. sudo vi ~/.profile #給使用者部屬用

```
=====
export
SECRET_KEY_BASE='596a6c2ae5a9c3055b1cbef8c6e21421023c606da19c10f06ee869b62df810cf171df1f1e6b2392274baa0299'
export FORUM_DATABASE_PASSWORD='123456'
export RAILS_SERVE_STATIC_FILES='true'
#export RAILS_ENV='production' #註：這一行不要設，除非你以後不想在這台電腦上開發
程式
=====
```

接著輸入 `sudo ~/.profile` (馬上生效) , 再打 `printenv |grep SECRET_KEY_BASE` 即可看到設定已生效

三. 如果有使用devise驗證的話, 沒有就略過:

`vi config/initializers/devise.rb` 修改第9行 (拿掉前面#, 並貼上密鑰)

```
=====
config.secret_key =
'596a6c2ae5a9c3055b1cbeff8c6e21421023c606da19c10f06ee869b62df810cf171df1f1e6b2392274baa029'
=====
```

`vi config/database.yml` (記得帳號要從 `forum` 改成 `root` <= 簡單的作法)

```
=====
production:
  <<: *default
  database: forum_p
  username: root
  password: <%= ENV['FORUM_DATABASE_PASSWORD'] %>
=====
```

註: 複雜的作法是要新增 `forum` 這個帳號, 還要設定權限, 參考範例如下:

```
mysql -u root -p
create database forum_p;
grant all privileges on forum_p.* to 'forum'@'localhost' identified by
'123456';
flush privileges;
```

(3). 把所有前端所需的資源 (`*.css`、`*.js`) 打包成一個檔

`vi config/environments/production.rb` <= 修改第32行, 把 `false` 改成 `true`

```
=====
config.assets.compile = true
=====
```

(4). 測試打包是否成功 => `RAILS_ENV=production rake assets:precompile`

註: 這個版本有點問題, 如果要正確執行, 就要修改 `Gemfile` 加入 `gem 'sprockets', '2.12.3'`
再執行 `bundle`
`bundle update sprockets`
`bundle update`

(5). 在套件裡加入 `passenger`, 並指定資料庫使用 `mysql`

`vi Gemfile`

```
=====
gem 'passenger'
group :production do
  gem 'mysql2', '0.3.20'
end
=====
```

(6). 安裝相關 Gem 套件 => `bundle`

(7). 安裝正式環境資料庫 => `RAILS_ENV=production rake db:create db:migrate db:seed`

(8). 安裝 Passenger => `passenger-install-apache2-module`

```
=====
Welcome to the Phusion Passenger Apache 2 module installer, v5.0.20.
```

This installer will guide you through the entire installation process. It shouldn't take more than 3 minutes in total.

Here's what you can expect from the installation process:

1. The Apache 2 module will be installed for you.

2. You'll learn how to configure Apache.
3. You'll learn how to deploy a Ruby on Rails application.

Don't worry if anything goes wrong. This installer will advise you on how to solve any problems.

Press Enter to continue, or Ctrl-C to abort.

Which languages are you interested in?

Use <space> to select.

If the menu doesn't display correctly, press '!'

- ☒ Ruby
- ☒ Python
- ☐ Node.js
- ☐ Meteor

Checking for required software...

- * Checking for C compiler...
Found: yes
Location: /usr/bin/cc
- * Checking for C++ compiler...
Found: yes
Location: /usr/bin/c++
- * Checking for Curl development headers with SSL support...
Found: no
Error: Cannot find the `curl-config` command.
- * Checking for Zlib development headers...
Found: yes
Location: /usr/include/zlib.h
- * Checking for Apache 2...
Found: yes
Location of httpd: /usr/sbin/apache2
Apache version: 2.4.10
- * Checking for Apache 2 development headers...
Found: no
- * Checking for Rake (associated with /home/ruby/.rvm/gems/ruby-2.2.0@rails420/wrappers/ruby)...
Found: yes
Location: /home/ruby/.rvm/gems/ruby-2.2.0@rails420/wrappers/rake
- * Checking for OpenSSL support for Ruby...
Found: yes
- * Checking for RubyGems...
Found: yes
- * Checking for Ruby development headers...
Found: yes
Location: /home/ruby/.rvm/rubies/ruby-2.2.0/include/ruby-2.2.0/ruby.h
- * Checking for rack...
Found: yes
- * Checking for Apache Portable Runtime (APR) development headers...
Found: no
- * Checking for Apache Portable Runtime Utility (APU) development headers...
Found: no

Some required software is not installed.
But don't worry, this installer will tell you how to install them.
Press Enter to continue, or Ctrl-C to abort.

按 ENTER 繼續

Installation instructions for required software

- * To install Curl development headers with SSL support:
Please run apt-get install libcurl4-openssl-dev or libcurl4-gnutls-dev,

whichever you prefer.

- * To install Apache 2 development headers:
Please install it with `apt-get install apache2-threaded-dev`
- * To install Apache Portable Runtime (APR) development headers:
Please install it with `apt-get install libapr1-dev`
- * To install Apache Portable Runtime Utility (APU) development headers:
Please install it with `apt-get install libaprutil1-dev`

If the aforementioned instructions didn't solve your problem, then please take a look at our documentation for troubleshooting tips:

<https://www.phusionpassenger.com/library/install/apache/>
<https://www.phusionpassenger.com/library/admin/apache/troubleshooting/>
=====

系統提示你必須加裝Apache2 相關套件，請輸入

```
sudo apt-get -y install libcurl4-openssl-dev apache2-threaded-dev libapr1-dev libaprutil1-dev
```

再重新執行 `passenger-install-apache2-module`

```
=====
Welcome to the Phusion Passenger Apache 2 module installer, v5.0.20.

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```

Here's what you can expect from the installation process:

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2. You'll learn how to configure Apache.
3. You'll learn how to deploy a Ruby on Rails application.

Don't worry if anything goes wrong. This installer will advise you on how to solve any problems.

Press Enter to continue, or Ctrl-C to abort.

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- ☒ Ruby
- ☒ Python
- ☐ Node.js
- ☐ Meteor

```
-----
Checking for required software...
```

- * Checking for C compiler...
Found: yes
Location: /usr/bin/cc
- * Checking for C++ compiler...
Found: yes
Location: /usr/bin/c++
- * Checking for Curl development headers with SSL support...
Found: yes
curl-config location: /usr/bin/curl-config

```

Header location: /usr/include/curl/curl.h
Version: libcurl 7.38.0
Usable: yes
Supports SSL: yes
* Checking for Zlib development headers...
Found: yes
Location: /usr/include/zlib.h
* Checking for Apache 2...
Found: yes
Location of httpd: /usr/sbin/apache2
Apache version: 2.4.10
* Checking for Apache 2 development headers...
Found: yes
Location of apxs2: /usr/bin/apxs2
* Checking for Rake (associated with /home/ruby/.rvm/gems/ruby-2.2.0@rails420/
wrappers/ruby)...
Found: yes
Location: /home/ruby/.rvm/gems/ruby-2.2.0@rails420/wrappers/rake
* Checking for OpenSSL support for Ruby...
Found: yes
* Checking for RubyGems...
Found: yes
* Checking for Ruby development headers...
Found: yes
Location: /home/ruby/.rvm/rubies/ruby-2.2.0/include/ruby-2.2.0/ruby.h
* Checking for rack...
Found: yes
* Checking for Apache Portable Runtime (APR) development headers...
Found: yes
Location: /usr/bin/apr-1-config
Version: 1.5.1
* Checking for Apache Portable Runtime Utility (APU) development headers...
Found: yes
Location: /usr/bin/apu-1-config
Version: 1.5.4

```

Checking whether there are multiple Apache installations...
Only a single installation detected. This is good.

```

Compiling and installing Apache 2 module...
cd /home/ruby/.rvm/gems/ruby-2.2.0@rails420/gems/passenger-5.0.20
# env NOEXEC_DISABLE=1 /home/ruby/.rvm/gems/ruby-2.2.0@rails420/wrappers/rake
RELEASE=yes apache2:clean apache2
rm -rf buildout/cache

```

.
.
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.

編譯約等10分鐘

.
.
.
.

Almost there!

Please edit your Apache configuration file, and add these lines:

```

LoadModule passenger_module /home/ruby/.rvm/gems/ruby-2.2.0@rails420/gems/
passenger-5.0.20/buildout/apache2/mod_passenger.so
<IfModule mod_passenger.c>
    PassengerRoot /home/ruby/.rvm/gems/ruby-2.2.0@rails420/gems/
passenger-5.0.20
    PassengerDefaultRuby /home/ruby/.rvm/gems/ruby-2.2.0@rails420/wrappers/ruby
</IfModule>

```

After you restart Apache, you are ready to deploy any number of web

applications on Apache, with a minimum amount of configuration!

Press ENTER when you are done editing.

Validating installation...

```
* Checking whether this Passenger install is in PATH... ✓
* Checking whether there are no other Passenger installations... ✓
* Checking whether Apache is installed... ✓
* Checking whether the Passenger module is correctly configured in Apache... (!
)
```

You did not specify 'LoadModule passenger_module' in any of your Apache configuration files. Please paste the configuration snippet that this installer printed earlier, into one of your Apache configuration files, such as /etc/apache2/apache2.conf.

Detected 0 error(s), 1 warning(s).
Press ENTER to continue.

按 ENTER 繼續

Deploying a web application

To learn how to deploy a web app on Passenger, please follow the deployment guide:

<https://www.phusionpassenger.com/library/deploy/apache/deploy/>

Enjoy Phusion Passenger, a product of Phusion (www.phusion.nl) :-)
<https://www.phusionpassenger.com>

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=====

(9).把設定轉貼到 Apache 模組, 新增 passenger.load、passenger.conf

```
sudo vi /etc/apache2/mods-available/passenger.load
=====
LoadModule passenger_module /home/patrick/.rvm/gems/ruby-2.2.0@rails420/gems/
passenger-5.0.20/buildout/apache2/mod_passenger.so
=====
```

```
sudo vi /etc/apache2/mods-available/passenger.conf
=====
<IfModule mod_passenger.c>
    PassengerRoot /home/patrick/.rvm/gems/ruby-2.2.0@rails420/gems/
passenger-5.0.20
    PassengerDefaultRuby /home/patrick/.rvm/gems/ruby-2.2.0@rails420/wrappers/
ruby
</IfModule>
=====
```

(10).執行 sudo a2enmod passenger #新增 passenger 模組

(11).新增 Apache 虛擬主機設定 forum.tw.conf

```
sudo vi /etc/apache2/sites-available/forum.tw.conf
=====
<VirtualHost *:80>
    ServerName www.forum.tw #網址自己找TWNIC申請)
    ServerAlias forum.tw
```

```

DocumentRoot /www/forum/public

#PassengerRuby /usr/local/rvm/gems/ruby-2.2.0@rails420/wrappers/ruby #註: 這行
不確定要不要增加
PassengerLogLevel 5
PassengerLogFile /var/log/apache2/passenger.log #註: 這兩行是除錯用!

<Directory /www/forum/public/>
  AllowOverride all
  Options -MultiViews
  Require all granted #註: 上面這三行設定是給 Apache 2.4用的
</Directory>

LogLevel debug
ErrorLog ${APACHE_LOG_DIR}/forum-error.log
CustomLog ${APACHE_LOG_DIR}/forum-access.log combined
</VirtualHost>
=====

```

(12).執行 `sudo a2ensite forum.tw` #啟用 forum.tw 網站 (會存一份軟連結到 ../sites-enabled/forum.tw.conf)
`sudo a2dissite 000-default` #停用Apache2預設頁面

(13).因為網站目錄權限問題, 所以把 forum 的資料夾搬出來, 順便新增兩個檔案 restart.txt 和 production.log

```

sudo mkdir /www
sudo mv ~/forum /www
sudo touch /www/forum/tmp/restart.txt
sudo chmod 666 /www/forum/tmp/restart.txt
sudo touch /www/forum/log/production.log
sudo chown -R www-data:www-data /www

```

(14).重啟服務 `sudo service apache2 restart`

(15).瀏覽網址 `http://forum.tw` (或 `http://192.168.1.1`) 成功!

(16).如果有錯, 可以打 `tail -F /var/log/apache2/passenger.log` 檢查到底哪裡出了問題!

(17).修改使用者權限

```

sudo vi /etc/group
在 24行 www-data:x:33:patrick #後面加入你的使用者名稱

```

(18).當未來有修改檔案時

```

touch /www/forum/tmp/restart.txt #重啟 Passenger 服務
如此即可生效, 不需要重啟 Apache2 網頁伺服器 ^_^

```

(19).等測試都正常, 可以把 Log 檔關掉, 以增加效能。

```

sudo vi /etc/apache2/sites-available/forum.tw.conf
=====
修改以下幾行:

#PassengerLogLevel 5
#PassengerLogFile /var/log/apache2/passenger.log

LogLevel error (原為 debug)
=====
= END =

```