

Wi-Fi

Primedia Guest

Password will be on screen before each
meeting

"Ruby on Rails Tutorial" by Michael Hartl

[RailsTutorial.org](https://railstutorial.org)

50% off code pdf and/or videos:
scholarship01

Emerald City Programming Group

Zero to Deploy

Teachers

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Course Agenda

Follow the Ruby on Rails Tutorial book

Some additional sessions on Ruby & Git at the beginning

From Zero to Deploy

Install & set up Ruby & Rails

Install & set up Git for source control

Set up Firefox for web development

Set up development environment

From Zero to Deploy

Create a demo Rails application

Commit our project to source control

Push our code up to GitHub

Deploy the application to production using Heroku

Installation and Set up

Operating Systems

Windows: XP or 7 (Vista should work like Windows 7)

Mac OS/X: Snow Leopard or Lion

Linux: Ubuntu desktop

Install Ruby - Prerequisites

Windows: Install Rails Installer from
<http://railsinstaller.org>

Linux: Install development packages (see
instruction repo.)

OS/X: XCode & Homebrew

Install Ruby

Windows: Installed with Rails Installer

Linux & OS/X: Install Ruby Version Manager

Ruby Version Manager (rvm)

For Linux & OS/X

Easily switch between versions of Ruby

On Linux, people have issues with using Ruby via package manager

On OS/X, system version is 1.8.7

RVM - Installation

```
$ bash < <(curl -s https://rvm.beginrescueend.com/install/rvm)
$ echo '[[ -s "$HOME/.rvm/scripts/rvm" ]] && . "$HOME/.rvm/scripts/rvm"
# Load RVM function' >> ~/.bash_profile

$ rvm install 1.9.2
$ rvm --create use 1.9.2@rails3tutorial
$ rvm --default use 1.9.2@rails3tutorial
```

Install Rails - Windows

Rails Installer installs Rails 3.1

Rails community still catching up with Rails 3.1

HTML, CSS, & JavaScript files in a different directory

Everything else learned still applies to Rails 3.1

~~Replace Rails 3.1 w/ Rails 3.0~~

Install Rails - Windows

```
$ gem uninstall rails  
$ gem install rails -v=3.0.10
```

Install Rails - Linux & OS/X

```
$ gem install rails -v=3.0.10
```


Install Git - What is Git?

Distributed source control system

The entire source repository and all history stored in each instance

Send copies of all changes to other instances of the repository

Request copies of all changes made by other instances of the repository

Install Git - Windows

Installed with Rails Installer

Install Git - OS/X

Git now comes with XCode 4

Otherwise:

```
$ brew install git
```

Install Git - Linux

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

Install Git

First-time setup

```
$ git config --global user.name "Your Name"  
$ git config --global user.email youremail@email.com
```

Set up Firefox

Install Firefox from <http://www.getfirefox.net/>

Install Firebug plugin from
<http://getfirebug.com/>

Redcar

Development environment

Very similar to TextMate

Redcar - Features

Syntax highlighting

Project browser

Cross platform support

Written in Ruby

Redcar - Why?

Show what's happening "under the covers"

Better idea how to solve problems when using an IDE

For other projects, RubyMine by JetBrains is a really good IDE

Redcar - Prerequisites

Java 6 Runtime Environment

Redcar - Installing

```
$ gem install redcar  
$ redcar install
```

A touch of Rails

Create the project

```
$ mkdir rails_projects  
$ cd rails_projects  
$ rails new first_app  
$ cd first_app  
$ redcar .
```

Application Architecture

File/Directory	Purpose
app/	Core application (app) code, including models, views, controllers, and helpers
config/	Application configuration
db/	Files to manipulate the database
doc/	Documentation for the application
lib/	Library modules
log/	Application log files
public/	Data accessible to the public (e.g., web browsers), such as images and cascading style sheets (CSS)
script/rails	A script provided by Rails for generating code, opening console sessions, or starting a local web server
test/	Application tests (made obsolete by the spec/)
tmp/	Temporary files
vendor/	Third-party code such as plugins and gems
README	A brief description of the application
Rakefile	Utility tasks available via the rake command
Gemfile	Gem requirements for this app
config.ru	A configuration file for Rack middleware
.gitignore	Patterns for files that should be ignored by Git

Ruby Gems

Used to package & distribute Ruby code

Like Java jar files or C# assemblies

Gemfile used to manage Ruby Gem dependencies

Add Ruby sqlite3 Gem to the application

Install dependent Gems

Project dependencies stored in Gemfile
\$ bundle install

Run the application

```
$ rails server
```

Navigate to the following URL:
<http://localhost:3000>

Commit to Source Control

Commit to Git

Add the files to source control

```
$ git init
```

```
$ git add .
```

Commit

```
$ git commit -m 'Commit comment'
```

Push to GitHub

What is GitHub?

GitHub provides Git hosting services

Store, view, and share your Git repositories

Free storage up to 300 mb - a lot for text files

Push to GitHub

Sign up & set up

Sign up at <https://github.com/signup/free>

Set up instructions at
<http://help.github.com/set-up-git-redirect>

Need to set up SSH key (demo)

Push to GitHub

Commands

```
$ git remote add origin git@github.com:<username>/first_app.git  
$ git push origin master
```

Deploy to Heroku

What is Heroku?

Service for hosting Rails applications (PaaS)

Built on top of Amazon EC2

Free for applications that need limited resources

Also supports Java, Node.js, & Clojure apps

Heroku - Sign up

Sign up at <https://api.heroku.com/signup>

Getting started with Heroku -
<http://devcenter.heroku.com/articles/quickstart>

Getting started with Rails 3.0 on Heroku -
<http://devcenter.heroku.com/articles/rails3>

Getting started with Rails on Windows -
<http://devcenter.heroku.com/articles/windows>

Heroku - Set up

```
$ gem install heroku  
$ heroku keys:add  
$ heroku create
```

Push to Heroku via Git

Execute the following commands:

```
$ git push heroku master  
$ heroku open
```