

Rails from the Ground Up!

with Jared Richardson
RoleModel Software

Ruby

Part One

An Introduction



Ruby the Language

Ruby != Rails

Lightweight language

Cross platform

Interpreted

Older than Java



Matz !

Yukihiro “matz” Matsumoto

Ruby’s first release was 1995

Blended His Favorites

Perl

Smalltalk

Eiffel

Ada

Lisp

His Goals?

Balance functional and imperative
Wanted Ruby to be natural, not simple

Didn't Take Off Until

Ruby on Rails

by DHH (David Heinemeier Hansson)

Released in ~2005

(Ruby had been out for a decade!)

Be Aware

Ruby and Ruby on Rails are different

A Quick Aside

Ruby Version Manager

aka rvm

<https://rvm.beginrescueend.com/>

installs

manages

Start here...

The following is a single line:

```
bash -s stable < <(curl -s  
https://raw.github.com/wayneeseguin/rvm/master/  
binscripts/rvm-installer)
```

Put rvm in the Path

Reload your environment

`source ~/.bash_profile`

OR

exit Terminal and start a new session

Requirements

Check platform specific requirements

rvm requirements <ruby version>

rvm requirements 1.9.3

Install 1.9.3

```
rvm install 1.9.3
```

Now Wait...

rvm will...

- download

- compile

- install

What's Installed?

rvm list

Choose Your Ruby!

rvm use <version>

Useful Commands

rvm default <version>

rvm info

rvm remove

Something's Wrong!

As a last resort...

rvm implode



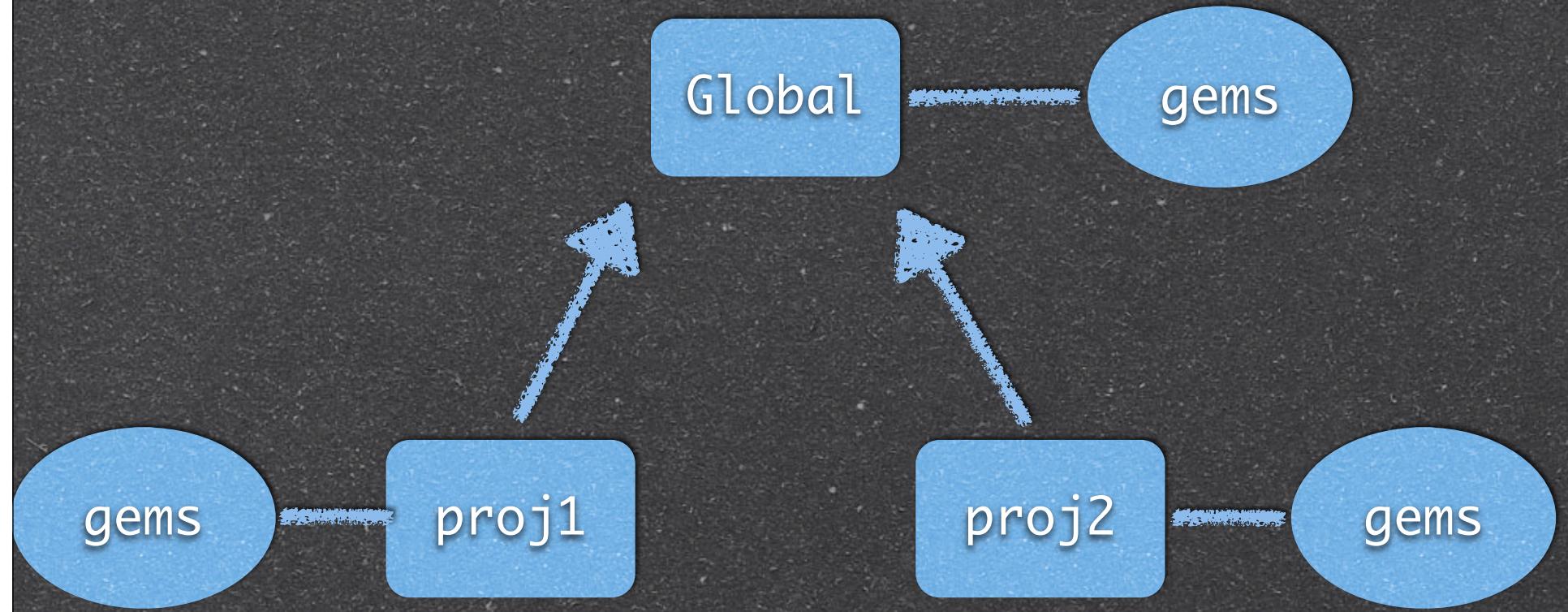
<http://www.flickr.com/photos/22320444@N08/5269558283/>

Name Spaces

rvm gemset

rvm gemset create development

rvm gemset create test



Search Path

.rvmrc

rvm use 1.9.3

rvm use 1.9.3@development

rvm use 1.9.3@project_two --create

.rvmrc

Ensures Ruby version by project

cd into a directory

rvm switches to the correct Ruby

Libraries (gems) are Ruby specific

```
jareds-desktop:~ jared$ cd rvmrc/
=====
= NOTICE
=====
= RVM has encountered a new or modified .rvmrc file in the current directory =
= This is a shell script and therefore may contain any shell commands.      =
=
= Examine the contents of this file carefully to be sure the contents are    =
= safe before trusting it! ( Choose v[iew] below to view the contents )      =
=====
Do you wish to trust this .rvmrc file? (/Users/jared/rvmrc/.rvmrc)
y[es], n[o], v[iew], c[ancel]> y
Using /Users/jared/.rvm/gems/ruby-1.9.3-p0 with gemset development
jareds-desktop:rvmrc jared$
```

Your Turn

in RailsFromTheGroundUp

```
cd rvmrc
```

```
cd 1.9.3
```

```
cd ..
```

```
cd 1.9.3_development
```

rvm create

rvm gemset create development

Back to Ruby

`ruby <file_name>`

`irb`

irb

“Hello World!”

2 + 2

Math.sqrt(9)

Everything's An Object

“Hello”.class

3.class

(3/7).class

(3/7.0).class

3/7.class

Objectify

```
obj = Object.new
```

```
obj.is_a? Integer
```

```
obj.is_a? Object
```

```
obj.methods
```

Acting On Objects

object dot method

`obj.methods => returns an Array`

Chain methods

`obj.methods.sort`

Simple Math

4-3

3-7

2 * 9

9/2

9/2.0

Numbers

Integer

Fixnum & Bignum

Float

Double

Rational

Fixnum

Inherits from Integer

Native machine word (minus 1 bit)

Auto converts to Bignum

Max & Min?

Not defined

Platform specific

`FIXNUM_MAX = (2**(@.size * 8 -2) -1)`

`FIXNUM_MIN = -(2**(@.size * 8 -2))`

Your Turn

use irb

n = 2

r = 2**10

what class is r?

r = n**250

what class is r?

find out where r becomes a BigNum

Conversions

Type along...

```
i = Integer (0xA4F3A)
```

```
i = Integer "7321"
```

```
i.to_s
```

```
f = Float("732.217")
```

```
f.to_i
```

Strings

h = “Hello World!”

h.length()

h.reverse()

h.index(“d”)

h.upcase

h.downcase!

More Strings

```
h = "Hello" + " " + "world!"
```

```
"Hello ".concat("World")
```

```
h.sub("l", "k")
```

```
h.gsub("l", "k")
```

```
h.chomp
```

Quoted Strings What's Valid?

"Hello world"

'Hello world'

"Hello world'

" 'this is my' little world"

' "this is my" other little world'

" this is \" valid"

Embedding Variables in Strings

```
"#{ <variable> } "
```

```
n = 17
```

```
puts "The value of n is #{n}"
```

```
puts 'The value of n is #{n}'
```

Recap

Terminal commands

gcc

Install of brew

git & SourceTree

rvm

basic ruby

Homework

<http://www.ruby-lang.org/en/>

<http://git-scm.com/doc/ext>