

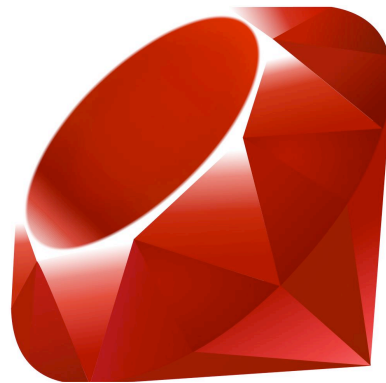
Rails from the Ground Up!

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.githubusercontent.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>`

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



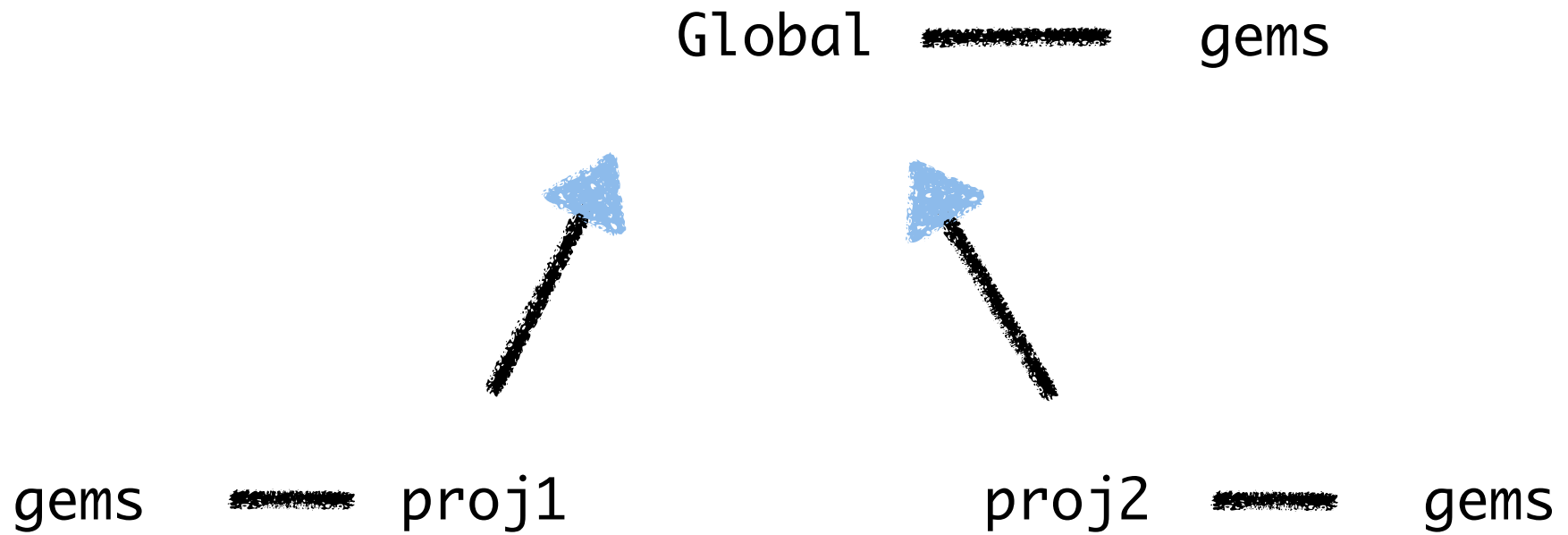
<http://www.flickr.com/photos/22320444@N08/5269558283/>

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
```

`.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

obj.methods.sort

Chain methods

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**(0.size * 8 - 2) - 1)`

`FIXNUM_MIN = -(2**(0.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}'
```


Adding with Strings

```
"Hello " + "World"
```

```
puts "Hello " + 7
```

```
"Hello " + 7.to_s
```

```
print "Hello " * 7
```

Flow Control

```
if <condition>  
    <code>  
else  
    <else code>  
end
```

More Flow Control

```
if <condition 1>  
    <code>  
elseif <condition 2>  
    <else code>  
elseif <condition 3>  
    <else code>  
end
```

Puts What's False?

```
if false  
  puts "Hello"  
end
```

Puts What's False?

```
if 0  
  puts "Hello"  
end
```

Puts What's False?

```
if nil  
  puts "Hello"  
end
```

???

false.class

nil.class

nil.class.class

0.class