# Intro to Ruby

# Goals

- See what Ruby code looks like

- Learn why programmers choose Ruby

You won't memorize anything

# 3 Categories

- Languages

- Libraries

- Frameworks

# Languages

- Ruby

- Java

- Elixir

- Python

- Many more!

# Library

- A collection of reusable code to accomplish an activity

- DON'T REINVENT THE WHEEL!

# Framework

- A collection of reusable code to facilitate development of a particular product or solution

# Ruby? Ruby on Rails? Gems?

- Ruby is the language

- Gems are Ruby's libraries

- Ruby on Rails is a framework

# Ruby on Rails

- Ruby on Rails is written in Ruby

- Ruby on Rails contains many gems

- Ruby on Rails is a framework for building websites

# Ruby Philosophy

- "A programmer's best friend"

*"I believe people want to express themselves when they program.*

*They don't want to fight with the language.*

*Programming languages must feel natural to programmers.*

*I tried to make people enjoy programming and concentrate on*

*the fun and creative part of programming when they use*

*Ruby."* - Matz (Yukihiro Matsumoto), Ruby creator

# Easy to Read!

```
<p>1.week.from_now
#=> Tue, 12 Nov 2013 11:40:37 EST -05:00</p>
```

```php
<?php
echo date('Y-m-d', strtotime('+1 week'));
// 2 Warnings and ...
// 2013-11-12
?><br>
```

```java
import java.util.Calendar;
class ThisIsAClassIDontReallyWantToNameButJavaMakesMe {
  public static void main() {
    Calendar calendar = Calendar.getInstance();
    calendar.add(Calendar.DAY_OF_MONTH, 7);
    System.out.printf("%tF%n", calendar);
    // 2013-11-12
  }
}
```

# Building Blocks of Ruby

- Classes

  - Describes the generic activities of a type of thing

  - Examples: *Dog, Vehicle, Baby, String*

- Methods

  - What the things in the class do

  - Example: bark, start, cry, capitalize

```ruby
class Dog
  def bark
    "woof woof"
  end

  def beg_for_food
    *sad eyes*
  end
end
```

# Building Blocks of Ruby

- Variables

  - the most basic type of container that you will store data in

  - attendees = 30

- String

  - a "word" or sequence of words

  - string1 = 'a'

  - string2 = 'This is a string'

- Array

  - An ordered collection of things

  - food = ['chicken', 'rice', 'steak', 'fish', 'shrimp', 'beef']

# Building Blocks of Ruby

- Hash

    - A collection of "key-value" pairs. A key-value pair is a combination of the name of a container (i.e. the key) and the contents of the container (i.e. the value).

    - {'dog' => 'canine', 'cat' => 'feline', 'rat' => 'rodent' }

- Booleans

    - A boolean is either true or false

    - >1 + 1 == 2

        => true

    - > 1 + 1 == 0

        => false

# Terminal

- Terminals show a line of text when you login & after a command finishes

-  It's called the prompt, and customarily ends with a dollar sign

- Whenever instructions start with $, type the rest of the line into the terminal.

# IRB

- Interactive Ruby

- IRB has its own prompt, which customarily ends with `>`

-  $ irb

- irb(main):001:0>

- • You can type exit in IRB at any time to get out

- irb(main):001:0> exit

-  $

- • Now you're back to the terminal's prompt.