

Introduction to Ruby

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Who am I?

- ✦ Ruby on Rails developer
- ✦ Love dogs
- ✦ Once danced with flamingos



Ruby is Awesome

- ✦ Created by Yukihiro “Matz” Matsumoto
- ✦ Designed around programmer happiness
- ✦ Popularized by Ruby on Rails, a framework that uses ruby to build websites
 - ✦ Airbnb, Hulu, MyFitnessPal are some examples

Let's do this

Hello basics!

- ✦ Hello world: <https://repl.it/FpMq>
- ✦ Hello WWC: <https://repl.it/FpMs>
- ✦ Hello you awesome person you: <https://repl.it/FpMx>

```
1 puts "What is your name?"
2 name = gets
3
4 puts "Hello #{name}!"
5
6
```


Data

- ✦ Ruby defines behavior by data type
- ✦ Strings
- ✦ Numbers
- ✦ Arrays
- ✦ <https://repl.it/FpNj/3>

```
1  # This is a comment
2
3  "This is a string".class
4
5  a = 5
6  a
7  a.class
8
9  a = 5 + 1
10 a = "Corgis"
11
12 ["this", "is", "an", "array"].class
```


Arrays

- ✦ Arrays are a way to organize groups of data
- ✦ Each item in the array has an address, called an index
- ✦ <https://repl.it/FpPD>

```
1 shopping_cart = ["milk",  
2                  "apples",  
3                  "toothpaste",  
4                  "bread",  
5                  "shampoo"]  
6  
7 shopping_cart.length  
8  
9 shopping_cart.last  
10  
11 shopping_cart[0]  
12 shopping_cart[3]  
13  
14 shopping_cart << "eggs"
```


Making decisions

- ✦ Executing code only if certain conditions are met is an important element of programming!
- ✦ <https://repl.it/FpNY/1>
- ✦ <https://repl.it/FpNY/3>

```
1 puts "What year was Ruby first released?"
2
3 year = gets.chomp.to_i
4
5 if year == 1995
6   puts "Correct! December 21, 1995"
7 else
8   "Sorry, try again"
9 end
```


Repetition

- ✦ Sometimes you want to do the same action a couple times.
- ✦ Ruby is flexible: <https://repl.it/FpOo>

```
1 3.times do
2   puts "Hip hip HOORAY!"
3 end
4
5 5.times do |num|
6   puts "This is line #{num}"
7 end
8
9 1.upto(5) do |num|
10  puts "This is line #{num}"
11 end
12
13 (1..5).each do |num|
14  puts "This is line #{num}"
15 end
16
```


Methods to the madness

- ✦ Methods are blocks of code that do a specific thing
- ✦ <https://repl.it/Fpio>

```
1 def add(num1, num2)
2   num1 + num2
3 end
4
5 puts add(2, 3)
6
7 puts add(50, -8)
8
```


(Building) Blocks

- ✦ Blocks are chunks of code that can be passed to a method
- ✦ We've actually seen blocks before!
- ✦ Remember this? <https://repl.it/FpOo/3>
- ✦ Other examples: <https://repl.it/FpgJ>

```
1 (1..10).select { |num| num.even? }  
2  
3 def example_block  
4   puts "this is the first line of text"  
5   yield  
6   puts "this is the last line of text"  
7 end  
8
```


Putting it all together

- ✦ Everything in Ruby is an object.
- ✦ Objects are a collection of variables and methods
- ✦ We can build our own with what we've learned!
- ✦ <https://repl.it/FpPO>

```
1 class Dog
2   #attr_reader :name
3
4   def initialize name
5     @name = name
6   end
7
8   def speak
9     puts "Woof!"
10  end
11
12  def give_cookie
13    puts "#{@name} wags tail"
14  end
15 end
16
```


More resources

- ✦ Try Ruby: Browser based Ruby tutorial
 - ✦ <http://tryruby.org/>
- ✦ Ruby in 100 Minutes: Tutorial you can run on your own computer
 - ✦ http://tutorials.jumpstartlab.com/projects/ruby_in_100_minutes.html
- ✦ Ruby documentation
 - ✦ <http://ruby-doc.org/>

Going further

- ✦ Installing Ruby: <https://www.ruby-lang.org/en/documentation/installation/>
- ✦ Learn Ruby on Rails
 - ✦ Ruby on Rails Tutorial: <https://www.railstutorial.org/book>
 - ✦ Rails documentation: http://guides.rubyonrails.org/getting_started.html

Thank you

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