Introducing Ruby



First Session

Agenda

- Command line
- Numbers
- Strings
- Exercises



Command Line

Introduction

What is the command line?

- Textual interaction with the computer
- Also called "Terminal", "Shell", "bash", "console", "PowerShell"
- Can look differently depending on operating system or user settings

How does it work?

- 1. Computer "asks" for command
- 2. You input a command, followed by the return key
- 3. Computer executes the command
- 4. Computer prints the output of the command

Command line

- Always in a working directory
- You can do most things you can do in a graphical interface
- You can do a lot of things quicker than with a graphical interface (once you've practiced a bit)
- Command followed by arguments (separated by spaces)
- Cryptic commands might seem scary at first

Directories

- Where am I?
 - o pwd
 - "Print working directory"
- How do I go somewhere else?
 - o cd
 - "Change directory"
 - Examples
 - cd testdirectory
 - cd ...
 - cd ~

Directories

- How do I create directories?
 - mkdir
 - "make directory"
 - o e.g. mkdir rubymonstas
- How do I delete directories?
 - rmdir
 - "remove directory"
 - o e.g. rmdir rubymonstas

Directories and files

- How do I see what's inside a directory?
 - o Is
 - o "list"
 - Examples

 - Is rubymonstas
 - Is ...
 - |s ~

Ruby-specific commands

- How do I run a Ruby script?
 - ruby
 - e.g. ruby myscript.rb
- How do I try something or play around with Ruby?
 - o irb
 - "interactive ruby shell"
 - Command line for Ruby

Numbers



Introduction

Numbers

- Integers: whole numbers
 - \rightarrow 1, 2, 3...
- Floats: decimal numbers
 - \rightarrow 1.5, 3.09, 4.12...



Calculations

- Addition \rightarrow +
- Subtraction → -
- Multiplication → *
- Division → /
- Modulo → %



Division - Attention!

- Division of Integers
- Division of Floats

- 6 / 4 = ?
- \bullet 6 / 4.0 = ?



Modulo

Gives the remainder of a division

$$\rightarrow$$
 13 % 6 = 1

$$\rightarrow$$
 21 % 8 = 5

Why the hell...?



Strings



Introduction

String Definition

- Words or phrases
- Single quotes '...'
- Double quotes "..."



Methods

- "Talk to" an object
- Manipulate an object
- Objects and methods are separated by a .



String Methods

.length

irb(main):005:0> "I love Ruby".length

=> 11

→ includes white spaces



reverse

irb(main):006:0> "I love Ruby".reverse
=> "ybuR evol I"



• .includes?

```
irb(main):011:0> "I love Ruby".include?("Ruby")
=> true
```

irb(main):012:0> "I love Ruby".include?("Rails")
=> false



upcase

irb(main):016:0> "Ruby".upcase

=> "RUBY"



.downcase

irb(main):017:0> "Ruby".downcase
=> "ruby"



.capitalize

irb(main):018:0> "ruby".capitalize
=> "Ruby"



Ruby Documentation



Everything is online!

Ruby documentation

- Google!
- For example "ruby string reverse"

http://ruby-doc.org/core/String.html

Time to practice



Let's get to it!