Ruby Intro

by example

A. Tzorvas[1]

[1]University of the Aegean
ICSD Department

intro to {HTML5,Ruby}, 2014

Outline

Outline

basics first

- interpreted language (see `http://repl.it/`)
- libraries are called gems
- everything is an object

```ruby
#this is a comment
"fossaegean".class
=> String
"fossaegean".reverse
=> "naegeassof"
"fossaegean".capitalize
=> "Fossaegean"
```

Outline

Printing

```ruby
print <<EOF
 This is the first way of creating
 her document ie. multiple line string.
EOF
# there is also puts (put string)
# which end a print with \n
name = "fossaegean"
msg = "This is my name: #{name}" # str interpolation
puts msg
puts msg, name
```

Printing

```
print <<EOF
 This is the first way of creating
 her document ie. multiple line string.
EOF
# there is also puts (put string)
# which end a print with \n
name = "fossaegean"
msg = "This is my name: #{name}" # str interpolatio
puts msg # This is my name: fossaegean
puts msg, name # This is my name: fossaegean
               # fossaegean
```

Outline

Ranges

```
(1..5).each {|i| puts i}
#  1
#  2
#  3
#  4
#  5
```

Outline

Loops

```ruby
a=0
while (a<3)
  puts a
  a=a+1
end
# or
(0..2).each {|a| puts a}
('a'..'d').each {|a| puts a}
```

Outline

Arrays

```
arr1 = [1,2,3]
arr2 = (3..6).to_a
arr3 = arr1+arr2
arr3.uniq
arr3.select{|i| i>3}
arr3
arr3.select! {|i| i>3}
arr3
arr1.map {|i| i+2}
arr1
arr4 = ["takis", "dimitris", "anna"]
arr4.map(&:reverse)
```

Arrays

```ruby
arr1 = [1,2,3] # [1,2,3]
arr2 = (3..6).to_a # [3,4,5,6]
arr3 = arr1+arr2 # [1,2,3,3,4,5,6]
arr3.uniq # [1,2,3,4,5,6]
arr3.select {|i| i>3} # [4,5,6]
arr3 # [1,2,3,4,5,6]
arr3.select! {|i| i>3} # [4,5,6]
arr3 # [4,5,6]
arr1.map {|i| i+2}
arr1 #[3,5,6]
arr4 = ["takis", "dimitris", "anna"]
arr4.map(&:reverse) # ["sikat", "sirtimid", "anna"]
```

Arrays
arrays can carry everything!

```ruby
arr1 = [1,2,'test', 'b']
arr2 = ('a'..'d').to_a
arr3 = arr1+arr2
arr3.uniq
```

Arrays
arrays can carry everything!

```ruby
arr1 = [1,2,'test', 'b'] # [1, 2, "test", "b"]
arr2 = ('a'..'d').to_a # ["a", "b", "c", "d"]
arr3 = arr1+arr2 # [1, 2, "test", "b"
                 # , "a", "b", "c", "d"]
arr3.uniq # [1, 2, "test", "b", "a", "c", "d"]
```

Outline

Hashes

```
myhash = {"sakis" => "dimitriou"} # {"sakis"=>"dimi
myhash["takis"] = "papadopoulos"
myhash["dimitris"] = "papadimas"
puts myhash["dimitris"]
puts myhash["sakis"]
```

Outline

Hashes

```ruby
myhash = {"sakis" => "dimitriou"} # {"sakis"=>"dimi
myhash["takis"] = "papadopoulos"
myhash["dimitris"] = "papas"
puts myhash["dimitris"] # papas
puts myhash["sakis"] # dimitriou
puts myhash # {"sakis"=>"dimitriou", "takis"=>"papa
            #    , "dimitris"=>"papadimas"}
```

Outline

Working with gems
Search

```
$ gem search ^rails$ -d

*** REMOTE GEMS ***

rails (4.0.0)
    Author: David Heinemeier Hansson
    Homepage: http://www.rubyonrails.org

    Full-stack web application framework.
```

Working with gems
Install

```
$ gem install drip
Fetching: rbtree -0.4.1. gem (100%)
Building native extensions . This could take a while
Successfully installed rbtree -0.4.1
Fetching: drip -0.0.2. gem (100%)
Successfully installed drip -0.0.2
Parsing documentation for rbtree -0.4.1
Installing ri documentation for rbtree -0.4.1
Parsing documentation for drip -0.0.2
Installing ri documentation for drip -0.0.2
Done installing documentation for rbtree , drip afte
2 gems installed
```

Working with gems
Using them

```ruby
require 'open-uri'
require 'nokogiri'

url = "https://en.wikipedia.org/wiki/Main_Page"
page = Nokogiri::HTML.parse(open(url).read)
puts page.title # Wikipedia, the free encyclopedia
items = page.at_css("*[id*=On_this_day]")
        .parent.parent.parent.next_element.css('li'
puts items[0].text
# 1060 - B l a I the Champion
#(bust pictured) was crowned king of Hungary.
puts items[1].text
# 1865 - Slavery in the United States was
# officially abolished when the Thirteenth
```

Resources

Links

- Ruby homepage
- Ruby docs
- Rubygems
- Ruby styleguide
- Ruby Rogues podcast

Misc

- Try Ruby online
- Codecademy Ruby track