Ruby Monstas



Session 5

Agenda

Starting Time
Control structures
Exercises



Starting Time

- . 18.30?
- . 19.00?

Control structures

Introduction

If

Sometimes we want to execute code depending on the situation.

If a certain situation is given, we want to execute a body of code.

The condition

```
if condition
  # the condition is true
end
condition is a boolean.
```

What could be a condition?

```
1 < 2
"Hello" == "World"
"Hello".include?("llo")
[4, 5, 6].include?(7)
{"Marion" => 7}.has_key?("Marion")
```

Anything that returns true or false!

If: example

```
irb(main):001:0> number = 42
=> 42
irb(main):002:0> if number > 10
irb(main):003:1>    puts "#{number} is greater than 10"
irb(main):004:1> end
42 is greater than 10
=> nil
```

If / else: the pattern

```
if condition
  # the condition is true
else
  # the condition is false
end
```

If, else: example

```
irb(main):001:0> number = 4
=> 4
irb(main):002:0> if number > 10
irb(main):003:1>    puts "#{number} is greater than 10"
irb(main):004:1> else
irb(main):005:1>    puts "#{number} is lower or equal to 10"
irb(main):007:1> end
4 is lower or equal to 10
=> nil
```

If / else: the pattern

```
if condition1
  # condition1 is true
elsif condition2
  # condition2 is true
else
  # none of the conditions are true
end
```

elsif

You can use as many elsif's as you like

If, elsif, else: example

```
irb(main):001:0> season = "spring"
=> "spring"
irb(main):002:0> if season == "summer"
irb(main):003:1> puts "It's too hot!"
irb(main):004:1> elsif season == "winter"
irb(main):005:1> puts "It's too cold!"
irb(main):006:1> else
irb(main):007:1> puts "It's just right!"
irb(main):008:1> end
It's just right!
=> nil
```

Each: the pattern

```
array = []
array.each do |element|
  # do stuff with element
end
```

Each: example

```
irb(main):001:0> names = ["Alice", "Bob", "Eve"]
=> ["Alice", "Bob", "Eve"]
irb(main):002:0> names.each do |name|
irb(main):003:1> puts name
irb(main):004:1> end
Alice
Bob
Eve
=> ["Alice", "Bob", "Eve"]
```

Each: another example

```
irb(main):031:0> array = [1, 2, 3]
=> [1, 2, 3]
irb(main):032:0> array.each do |n|
irb(main):033:1* n += 1
irb(main):034:1> puts n
irb(main):035:1> end
2
3
\Rightarrow [1, 2, 3]
```

While: the pattern

```
while condition do
    # condition is true
end
```

While: use

The while loop repeats a task until an expression returns false.

While: example

```
i = 0
while i < 5 do
    puts i
    i += 1
end</pre>
```

Self Study

- Research the "until"-Loop
- Practise
- Ask questions

Don't worry

- Control structures take time to get used to
- Don't be too hard on yourself
- Keep practising
- Ask for help

Smiling Amazing

Tip: Work in pairs

Time to practice



Let's get to it!