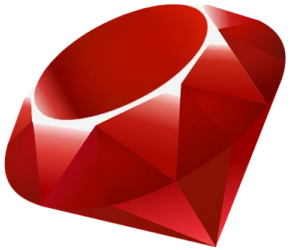
Ruby Monstas

Session 5

Agenda

- Interactive Recap
- Methods
- Exercises



Methods

Introduction

What if I want to reuse some code?

```
puts "What is your name?"
name = gets.chomp

puts "What is your year of birth?"
year_of_birth = gets.chomp
```

What if I want to reuse some code?

```
puts "What is your name?"
name = gets.chomp

puts "What is your year of birth?"
year_of_birth = gets.chomp
```

What if we could do this:

```
name = ask("What is your name?")
year_of_birth = ask("What is your year of birth?")
```

What if I want to reuse some code?

```
puts "What is your name?"
name = gets.chomp

puts "What is your year of birth?"
year_of_birth = gets.chomp
```

What if we could do this:

```
name = ask("What is your name?")
year_of_birth = ask("What is your year of birth?")
```

You can!

```
def ask(question)
  puts question
  gets.chomp
end

name = ask("What is your name?")
year_of_birth = ask("What is your year of birth?")
```

Methods

You've used them before!

```
"Hello Rubymonstas".length

"Test string".include?("Something")

5.odd?

puts "Tadaaa!"
```

Method or Function

A named block of code which takes input and returns output.

Methods make your code reusable.

Related to the mathematical idea of a function.

Structure

- Method name
  - The name a method is known as in the rest of your code
- Input values (aka arguments, parameters)
  - The information the method needs given to do its job
- Body
  - The code that does something useful with the input
- Return value
  - The value that is return to the code that called the method

Structure

```
def my_first_method(first_argument, second_argument)
    # This is the method body,
    # Here comes some useful code

    return_value
end
```

Method name

- Mandatory
- Naming conventions: Just like variable names!
- But you can use ? and ! at the end of your method name

```
calculate_age
enough_free_space?
save_user_data!
```

Input values

- Optional, comma-separated in parentheses
- Naming: Just like normal variables
- Only valid within the method, not before, not after

```
def calculate_age(year_of_birth)
    # code here
end


def save_user_data!(first_name, last_name, home_town)
    # code here
end
```

Method body

- Everything between the signature and the `end`
- Any Ruby code
- You can also call methods from within methods

```
def calculate_age(year_of_birth)
    age = 2015 - year_of_birth
end
```

Return value

- A method can return one value
- Anything that can be in a variable, a method can return
- The last thing you do in a method is the return value
- Sometimes we don’t need to care about the return value

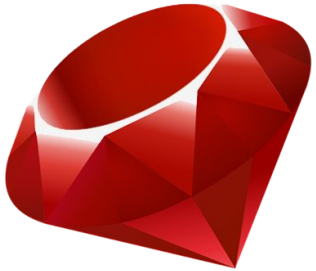
```
def calculate_age(year_of_birth)
    age = 2015 - year_of_birth
    age
end
```

Calling methods

How do I use (“call”) my method?

```
calculated_value = my_first_method(42, “hello”)
my_first_method calculated_value, 53.45
```

Time to practice



Let’s get to it!