Programming for Everybody

7. Refractoring

le wagon

The beauty of Ruby

Ruby *emphasises human needs over those of computers*, and is the programming language more similar to spoken english. And the more intuitive a language's syntax is, the more productive (and happy) the programmer will be! 🤩

Since programmers happiness is Ruby's first goal, *there are a lot of syntax shortcuts* that can help you write code in a faster, cleaner, and more efficient way

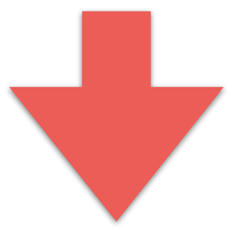
Try to use them, and you'll see your code quickly becoming similar to a normal language!

One-line Conditionals

When the *block* inside a conditional statement (like `if` or `unless`) is **just taking one line**, you can write all the statement on one line, and place the condition after the block (without specifying the `end` keyword):

```
age = 20

if age >= 18
  puts “you can vote!”
end
```



```
puts “you can vote!” if age >= 18
```

Ternary Operator (one-line `if-else` statement)

An quicker and more concise version of the `if-else` statement the **ternary conditional expression**

It takes three arguments: a condition, some code to execute if the condition is `true`, and some code to execute if the condition is `false`.

```
condition ? do this if true : do this if false
```

Ternary Operator (one-line `if-else` statement)

Use it again **only** when the condition can be written in one-line!

```
if age >= 18
  puts “you can vote!”
else
  puts “you can’t vote yet!”
end
```

puts can be before, DRY (don’t repeat yourself!)


```
puts age >= 18 ? “you can vote!” : “you can’t vote yet!”
```

Case Statement (a.k.a Switch)

Use it when you have a lot of `elsifs` conditions, it's faster and cleaner!

```
puts “Which language are you learning?”
language = gets.chomp

case language
  when “ruby” then puts “Web apps!”
  when “css” then puts “Style!”
  when “python” then puts “Data science!”
  else puts “Sounds interesting!”
end
```

Conditional Assignment

Use it to assign a variable **only** if it hasn't been assigned yet!

```
teacher = nil
puts “Let’s start today lecture!”

teacher = “gabriele”
teacher ||= “mariana”

puts “Today’s teacher is #{teacher}!”
```

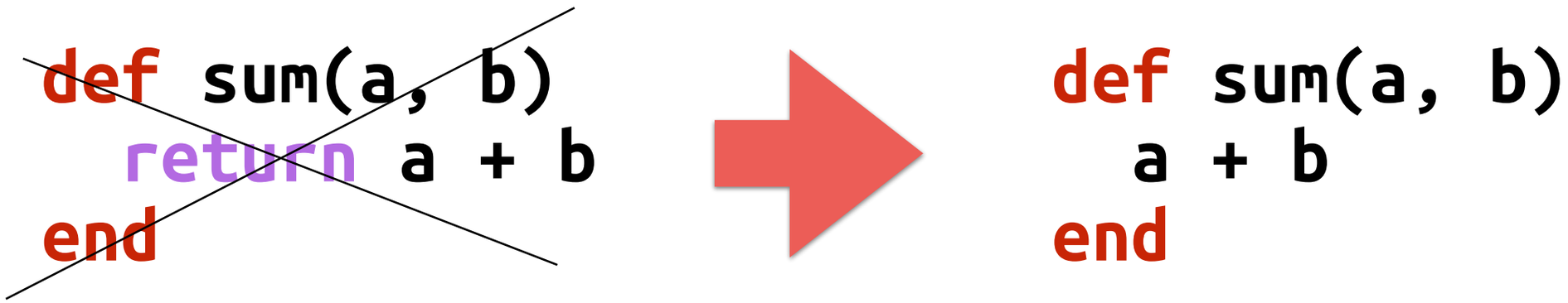
It won't be reassigned here, because the variable teacher is not empty!

Implicit Return

In Ruby you don't always need the `return` keyword to give back a value from a method (in most of programming languages you do!)

If you don't specify a `return`, the method will return the result of its last line of code

Use `return` **only when is not in the last line of your method!**



One-line Blocks

When a block (remember, *a block is the code inside a pre-defined method*) is taking just one line, you can put the entire method on one line, and use curly brackets instead of `def` and `end`

```
["gabriele", "mariana"].each do |name|
  puts name.capitalize
end
```

```
["gabriele", "mariana"].each { |name| puts name.capitalize }
```

Let’s see some more live examples!

Thank you! :)

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