Operators, Conditional Statements, and Loops

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Operators

- There are many and different operators in Ruby.

- Although you won't use all of them daily, it is useful to understand which are them and of which kinds.

- There are different kinds of operators in Ruby (and in most languages):
  - Arithmetic operators
  - Comparison operators
  - Assignment operators
  - Logical operators
  - Ternary operator
  - Range operator
  - Bitwise operators
  - *And others...*

- We can see all of them here: https://www.tutorialspoint.com/ruby/ruby_operators.htm

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Conditional Statements

- ## If..else statement

```
if conditional [then]
    code...
[elsif conditional [then]
    code...]...
[else
    code...]
end
```

- ## If and unless modifiers

```
code if condition
code unless condition
```

- Case statement (example)

```
edad =  5
case edad
when 0 .. 2
    puts "bebé"
when 3 .. 6
    puts "niño pequeño"
when 7 .. 12
    puts "niño"
when 13 .. 18
    puts "joven"
else
    puts "adulto"
end
```

Loops

- While loops

```
while condition [do]
  # code
end
```

- Until loops

```
until condition [do]
  # code
end
```

- For loops

```
for object in
expression [do]
    # code
end
```

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Homework

1. What are `break` and `next` instructions used for, and within which statements?

2. What are these iterators for? Write a simple example of each of them:
   a. Each iterator
   b. Times iterator
   c. Collect iterator

3. Write a program that prints the numbers between 1 and 100.

4. Write a program that prints the factorial of a given number.

5. Write a program that iterates over a string (paragraph) and prints:
   1. The shortest word.
   2. The longest work.
   3. The palindromes present in the paragraph.

Useful Resources

- Operators:
https://www.tutorialspoint.com/ruby/ruby_operators.htm

- Conditional statements:
https://www.tutorialspoint.com/ruby/ruby_if_else.htm

- Loops: https://www.geeksforgeeks.org/ruby-loops-for-while-do-while-until/

- Language Reference: https://ruby-doc.org/3.2.2/

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Thanks! Any question?

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