Ruby Monstas

Session 2

Agenda

- Advanced Command Line
- Variables
- Booleans
- Arrays
- Exercises

Advanced Command Line

Copy files and directories

cp	Copy files and folders
mv	Move files and folders, also rename files and folders
rm	Remove files
touch	Create a file if it does not exist already
man	Manual pages, documentation for commands
cat	Concatenate and print files
less	Display file

http://explainshell.com/

Variables

Introduction

Definition

- Memory locations
- Can hold any data

```
irb> a = 5
=> 5
irb> b = "Hello World"
=> "Hello World"
```

Naming Conventions

- Small letters
- No white space
- If the variable name has several words, use underscore
- Cannot start with a number

Which are good variable names?

- mynewvariable
- user_name
- date_of_birth
- 5_things
- AnotherVariableName
- list_of_favourite_drinks

Assigning Variables

- Assignment operator: =
- Assigning variables: assign an object to a variable

```
irb> a = 5
=> 5
```

Use of Variables

- Refer to objects via variables

```
irb> a + 4
=> 9
irb> b.length
=> 11
```

Overwrite Variables

- If you assign a new object to the same variable, the new object is valid

```
irb> b = "Hello World"
=> "Hello World"
irb> b = "Another String"
=> "Another String"
```

Assigning Variables to Variables

- Variables can be assigned to other variables

```
irb> a = 5
=> 5
irb> x = a
=> 5
```

puts

- “puts” is used to display the results of Ruby code

```
irb> puts "We print a string"
We print a string
=> nil
irb> puts b
Another String
=> nil
```

gets

- “gets” is used to get user input

```
irb> name = gets
Marion
=> "Marion\n"
irb> name
=> "Marion\n"
```

Booleans

Introduction

Boolean values

- The truth!
  - true
  - false
- Boolean operators: Next time!

Wait, I’ve seen that before!

- Functions (methods) can return booleans

```
irb> "Ruby is great".include? "Ruby"
=> true
irb> "This is great".include? "Ruby"
=> false
irb> 1.odd?
=> true
irb> 3.even?
=> false
```

?

- Ruby code convention: Functions that return a boolean value end with a ?

```
irb> b
=> "Another String"
irb> b.empty?
=> false
irb> x
=> 5
irb> x.integer?
=> true
```

Booleans and variables

```
irb> is_b_empty = b.empty?
=> false
irb> is_b_empty
=> false
```

Comparison operators

==	Are the left and right side **equal**?
!=	Are the left and right side **not equal**?
<	Is the left side **smaller than** the right side?
>	Is the left side **bigger than** the right side?
<=	Is the left side **smaller than or equal** to the right side?
>=	Is the left side **bigger than or equal** to the right side?

Comparison operators

```
irb> 5 == 4
=> false
irb> 5 != 4
=> true
irb> 1 < 2
=> true
irb> 1 > 2
=> false
irb> 7.1 <= 7.2
=> true
irb> 7.1 >= 7.2
=> false
```

Arrays

Introduction

Arrays

- lists of things

```
irb> [1, 1, 3, 5, 8]
=> [1, 1, 3, 5, 8]
irb> my_array = [7, "hello", 5.9]
=> [7, "hello", 5.9]
```

Accessing array items

```
irb> my_array = [7, "hello", 5.9]
=> [7, "hello", 5.9]
irb> my_array[1]
=> "hello"
irb> my_array.last
=> 5.9
irb> my_array.first
=> 7
```

Adding to an array

- “shovel” operator

```
irb> my_array << "new item"
=> [7, "hello", 5.9, "new item"]
irb> my_array << x
=> [7, "hello", 5.9, "new item", 5]
```

Deleting from an array

```
irb> my_array
=> [7, "hello", 5.9, "new item", 5]
irb> my_array.delete_at(2)
=> 5.9
irb> my_array
=> [7, "hello", "new item", 5]
irb> my_array.delete("hello")
=> "hello"
irb> my_array
=> [7, "new item", 5]
```

Time to practice

Let’s get to it!