Pragmatic Studio: Ruby Programming

Modules

Day 1:
1. Intro

Day 2
2. Running Rb
3. Numbers & Strings
4. Variables & Objects
5. Self
6. Methods
7. Classes
8. Attributes
9. Arrays
10. Objects interacting
11. Separate source files
12. Unit testing
13. Conditionals & TDD

Day 3
14. Modules
15. Blocks
16. Symbols & Structs
17. Hashes
18. Custom Iterators
19. Input / Output
20. Inheritance
21. Mixins
22. Distribution
23. Wrapping up.

1.1. Intro to the Course

yellow highlight for sections

+ Set the expectations
  + build a Rb app, from start to finish
  + Rb: OO programming language
    + Classes, objects, methods, etc
  + Understand what makes Rb different
    + discuss techniques
    + design principles
+ How is this course taught?
  + module w/ specific objective: video + exercise
  + Listen, watch, practice writing Rb code

1.2 Intro to the Game

+ Where is this Project heading?
  + text-based Game
    - Player: name, health
    - Roll a die: the player's health changes.
    - Find treasures to collect points
    - Test using RSpec
    - Game statistics
    - Package as a gem for distribution
  + a Playlist of Movies

unique player types

A loaded die

Who wins?

green highlight for concepts

2. Running Ruby

- in irb
- in ~~script files~~ program file (*.rb)

- assign the first variable : greeting
- call the first method : upcase
- use the first class : Time
- write the first loop : 3.times

pink highlight for terminology / jargon

Daily Plan : Online Ruby Course in ~~2~~ 3 Days

- the Key to learning anything new
  - consistent, deliberate practice
  - having an actual plan to follow can help.

Next: add the first player to the game.

VS Code extensions + deps

1. Ruby — formet, lint, etc
   - RuboCop
   - Reek

   debugger?
2. Solargraph — code completion, inline docs, etc.
3. endwise
4. Code Runner

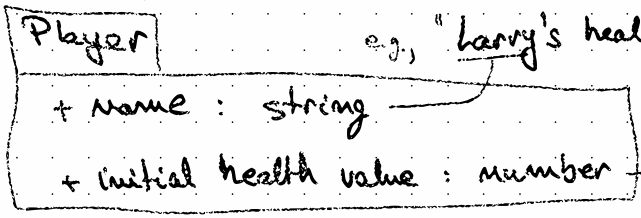
extend support for Elixir?

Dive Deeper: Programming Ruby (aka Pickaxe) Chapter 18

Pick Axe : 18 Interactive Ruby Shell

3. Numbers & Strings

Product requirement: Every Game needs a Player



Alternatively, a Movie has a rank. And a title.

3.1 Numbers

- int: Fixnum
- float: Float

! Rb casts to the more general type: float > int

- (Domain) Movie rank = merits - demerits
- (Rb) All numbers are objects => they respond to messages. (e.g., .class)

3.2. Strings

- single quoted
- double quoted – more processing
- escape sequences : \
- string concatenation : +
- ! concat String w/ Fixnum ... Object#to_s
- string interpolation : #{ <Rb expression> }
  - ↳ to_s automatically applied

6.1. Numbers
6.2 Strings

PickAxe:

Exercise

- Single vs double-quoted strings
- String concatenation
- Concat. strings & numbers
- escape sequences
- interpolate Rb expressions in strings

Next

- objects
- methods

4 Variables & Objects

+ instance methods — can be called on an object.
+ using `ri` to access RDocs for classes, methods, etc.
+ using `ri -i` seems even more user friendly

Vocabulary

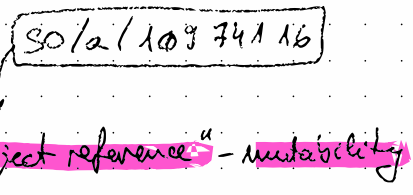
+ `text = "#{name.capitalize} has a health of #{health}."`
  + `capitalize` is a method
  + called on the object named `name` and
  + assigned to the variable named `text`.
+ `puts text.center(50, '*')`
  + `center` is a method
  + that takes two parameters / arguments.

Ruby STL

- `Time#strftime`

Exercise

- bind to variables
- Ruby uses "pass by object reference" - mutability



- call built-in methods
- pass parameters to methods
- chain multiple method calls
- explore documentation for Ruby methods.

1.4. Ruby Documentation: RDoc & ri
AS Documenting Ruby

Rick Axe: