

CoffeeScript is a language that is written in and compiles into Javascript. CoffeeScript:

- Was added to Rails with version 3.1. Some disagreed with CoffeeScript being added as a default, but most welcomed the change.
- Compiles into clean Javascript, without changing variable names or otherwise making the compiled JS hard to work with, so if at any point you decide to stop using it, you can use the JS instead.
- Works in every Javascript runtime (including Node), and is as fast or faster than the equivalent handwritten JS.
- Takes inspiration from Python and Ruby for syntax.
- Can be written in “literate” mode, which means you can write a file that is simultaneously valid in Markdown and CoffeeScript, and can easily be converted to HTML documentation.
- Adds support for list comprehensions, string interpolation, Python-style block strings, and Ruby-style ranges.
- Has a cleaner, easier to write syntax than Javascript.
- Supports embedded Javascript, although its use is discouraged.
- Was first released in 2009, implemented in Ruby.
- Is mature and well-documented.

Some CoffeeScript snippets:

- `[1..10].map (i) -> i*2`
- `[1..1000].reduce (t, s) -> t + s`
- `fs.readFile 'data.txt', (err, data) -> fileText = data`
- `[1..4].map (i) -> console.log "Happy Birthday " + (if i is 3 then "dear Robert" else "to You")`
- `Math.max.apply @, [14, 35, -7, 46, 98] # 98`
- `(n) -> (p.push i for i in [2..n] when !(p or p=[]).some((j) -> i%j is 0)) and n in p`

Sources:

<http://www.rubyinside.com/rails-3-1-adopts-coffeescript-jquery-sass-and-controversy-4669.html>

<http://coffeescript.org/>

<https://slainer68.wordpress.com/2010/12/13/you-should-already-use-coffeescript-in-your-rails-app/>

<http://ricardo.cc/2011/06/02/10-CoffeeScript-One-Liners-to-Impress-Your-Friends.html>