



Ruby Koans

learn Ruby with Neo

Ruby Koans

The Path to Ruby Enlightenment

Jim Weirich
Chief Scientist
Neo Ohio
@jimweirich

Joe O'Brien
Software Artisan
Neo Ohio
@objo



Who are Koans for?

- Know little (or nothing) about Ruby
- Have a background in some other language
 - (Java, C#, Python, etc)

Structure

-  about_array_assignment.rb
-  about_arrays.rb
-  about_asserts.rb
-  about_blocks.rb
-  about_class_methods.rb
-  about_classes.rb
-  about_constants.rb
-  about_control_statements.rb
-  about_dice_project.rb
-  about_exceptions.rb
-  about_extra_credit.rb
-  about_hashes.rb
-  about_inheritance.rb
-  about_iteration.rb
-  about_message_passing.rb
-  about_methods.rb
-  about_modules.rb
-  about_nil.rb
-  about_open_classes.rb

Each file focuses on one area of the Ruby language.

Typical Koan

```
require 'edgecase'

class AboutArrays < EdgeCase::Koan

  def test_creating_arrays
    empty_array = Array.new
    assert_equal Array, empty_array.class
    assert_equal __, empty_array.size
  end

  ...
end
```

Typical Koan

```
require 'edgcase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal __, empty_array.size
```

```
  end
```

```
  ...  
end
```

Magic Incantation

Typical Koan

```
require 'edgecase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
    empty_array = Array.new
    assert_equal Array, empty_array.class
    assert_equal __, empty_array.size
  end
  ...
```

Koan Category



```
end
```

Typical Koan

```
require 'edgecase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal __, empty_array.size
```

```
  end
```

```
  ...
```

```
end
```

Specific Koan



Typical Koan

```
require 'edgecase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal __, empty_array.size
```

```
  end
```

```
  ...
```

```
end
```



Assertions

Typical Koan

```
require 'edgecase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal __, empty_array.size
```

```
  end
```

```
  ...
```

```
end
```

Some Assertions Just pass

Typical Koan

```
require 'edgecase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal __, empty_array.size
```

```
  end
```

```
  ...
```

Most Assertions need User Input

```
end
```

Typical Koan

```
require 'edgcase'
```

```
class AboutArrays < EdgeCase::Koan
```

```
  def test_creating_arrays
```

```
    empty_array = Array.new
```

```
    assert_equal Array, empty_array.class
```

```
    assert_equal 0, empty_array.size
```

```
  end
```

```
  ...
```

Most Assertions need User Input

```
end
```

Typical Koan

```
def test_something  
  ...  
end
```

```
def test_something_else  
  ...  
end
```

**Normally koans will be
listed without breaks**

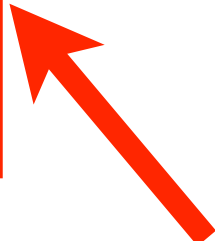
Typical Koan

```
# -----  
class Dog  
end  
  
def test_something_about_dog  
end  
  
def test_something_else_about_dog  
end  
# -----
```

If the several koans are related to something defined outside a koan, they will be visually grouped.

Typical Koan

```
# THINK ABOUT IT:  
#  
# Is it better to use  
#   obj.nil?  
# or  
#   obj == nil  
# Why?
```



**Sometimes you are just asked
to think about an aspect of
what you just learned.**

path_to_enlightenment.rb

```
# The path to Ruby Enlightenment starts with the  
# following:
```

```
require 'about_basics'  
require 'about_nil'  
require 'about_arrays'  
require 'about_array_assignment'  
require 'about_hashes'  
require 'about_methods'  
require 'about_control_statements'  
require 'about_true_and_false'  
...
```




Let's Start

You Will Need

- Working version of Ruby
- The Ruby Koans folder
- Some kind of a text editor

Path to Enlightenment

```
hungryzi@air ~/Workspace/koans $ ruby path_to_enlightenment.rb [ruby-1.9.3-p194]
AboutAsserts#test_assert_truth has damaged your karma.

The Master says:
  You have not yet reached enlightenment.
  Do not lose hope.

The answers you seek...
  Failed assertion, no message given.

Please meditate on the following code:
  /Users/hungryzi/Workspace/koans/about_asserts.rb:10:in `test_assert_truth'

mountains are merely mountains
your path thus far [X_____] 0/280
```

Path to Enlightenment

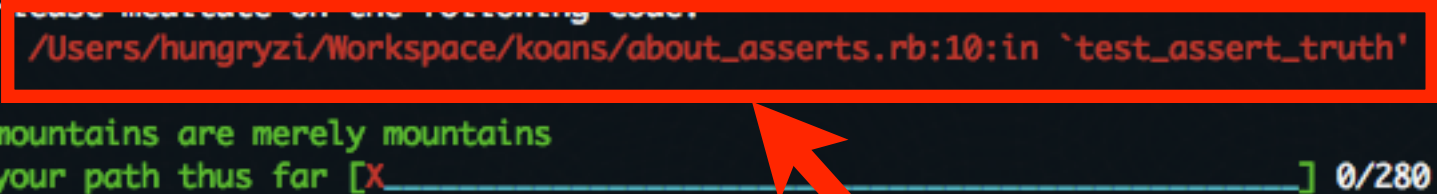
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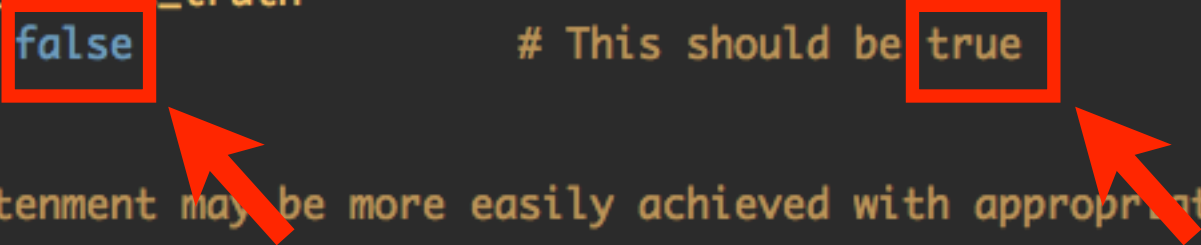


Path to Enlightenment

```
6 class AboutAsserts < EdgeCase::Koan
7
8   # We shall contemplate truth by testing reality, via asserts.
9   def test_assert_truth
10     assert false          # This should be true
11   end
12
13   # Enlightenment may be more easily achieved with appropriate
14   # messages.
15   def test_assert_with_message
16     assert false, "This should be true -- Please fix this"
17   end
18
```

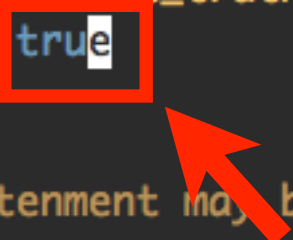
Path to Enlightenment

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Path to Enlightenment

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6 class AboutAsserts < EdgeCase::Koan
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8   # We shall contemplate truth by testing reality, via asserts.
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15   def test_assert_with_message
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```



Path to Enlightenment

```
hungryzi@air ~/Workspace/koans $ ruby path_to_enlightenment.rb [ruby-1.9.3-p194]
AboutAsserts#test_assert_truth has expanded your awareness.
AboutAsserts#test_assert_with_message has damaged your karma.

The Master says:
  You have not yet reached enlightenment.
  You are progressing. Excellent. 1 completed.

The answers you seek...
  This should be true -- Please fix this

Please meditate on the following code:
  /Users/hungryzi/Workspace/koans/about_asserts.rb:16:in `test_assert_with_message'

learn the rules so you know how to break them properly
your path thus far [.X_____] 1/280
```


Path to Enlightenment

```
hungryzi@air ~/Workspace/koans $ ruby path_to_enlightenment.rb [ruby-1.9.3-p194]
```

```
AboutAsserts#test_assert_truth has expanded your awareness.
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Path to Enlightenment


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```



We are here to **help**!