

Testing using MiniTest in Ruby

Overview

In this tutorial, we will create some tests in Ruby using Minitest and the "[minitest-reporters](#)" gem.

The "minitest-junit" could also be used, with minor changes to the code below, particularly in the "test_helper.rb".

Requirements

- Install minitest and minitest-reporters gem (or the "minitest-junit" gem as an alternative)

```
gem install minitest minitest-reporters
```

Description

The code that follows is from the [minitest github project](#).

Let's start by using a sample Ruby class.

lib/meme.rb

```
class Meme
  def i_can_has_cheezburger?
    "OHAI!"
  end
  def will_it_blend?
    "YES!"
  end
end
```

The tests will require some common code that can be written in a "test_helper" Ruby script.

test/test_helper.rb

```
$LOAD_PATH.unshift File.expand_path('../lib', __FILE__)
require 'meme'
require 'minitest/autorun'
require "minitest/reporters"
Minitest::Reporters.use! Minitest::Reporters::JUnitReporter.new
```

Writing some unit tests is straightforward.

test/meme_unit_test.rb

```
require 'test_helper'
class MemeTest < Minitest::Test
  def setup
    @meme = Meme.new
  end
  def test_that_kitty_can_eat
    assert_equal "OHAI!", @meme.i_can_has_cheezburger?
  end
  def test_that_it_will_not_blend
    refute_match /^no/i, @meme.will_it_blend?
  end
  def test_that_will_be_skipped
    skip "test this later"
  end
end
```

MiniTest also supports RSpec-like features such as the ability to use "specs". In this case, the test is wrapped inside one or multiple "describe" blocks, and is substantiated by an "it" block.

test/meme_spec_test.rb

```
require 'test_helper'
describe Meme do
  before do
    @meme = Meme.new
  end
  describe "when asked about cheeseburgers" do
    it "must respond positively" do
      @meme.i_can_has_cheezburger?.must_equal "OHAI!"
    end
  end
  describe "when asked about blending possibilities" do
    it "won't say no" do
      @meme.will_it_blend?.wont_match /^no/i
    end
  end
end
```

The two different approaches are valid and their results should be similar.

After running the tests and generating the JUnit XML report(s), it/they can be imported to Xray (by using either the REST API or the **Import Execution Results** action within the Test Execution).

```
rake test
```

Several JUnit XML will be produced:

- [TEST-MemeTest.xml](#)
- [TEST-Meme-when-asked-about-blending-possibilities.xml](#)
- [TEST-Meme-when-asked-about-cheeseburgers.xml](#)

TEST-MemeTest.xml contains the results of the unit tests. The other two files contain results related to the "spec" test.

Note: This example could be further optimized to obtain just a JUnit XML file containing the results for the two different test classes.

Tests

[Create Test](#)[+ Add](#) 

Overall Execution Status

TOTAL TESTS: 5

4 PASSED

1 TO DO

Filters 10 Columns 

	Key	Summary	Test Type	Status		Actions
<input type="checkbox"/>	CALC-324	test_that_it_will_not_blend	Generic	 PASSED		...
<input type="checkbox"/>	CALC-325	test_that_will_be_skipped	Generic	 TO DO		...
<input type="checkbox"/>	CALC-326	test_that_kitty_can_eat	Generic	 PASSED		...
<input type="checkbox"/>	CALC-327	test_0001_won't say no	Generic	 PASSED		...
<input type="checkbox"/>	CALC-328	test_0001_must respond positively	Generic	 PASSED		...

Prev 1 Next

Total 5 issues

The test is mapped to a Generic Test in Jira, and the **Generic Test Definition** field contains the name of Ruby test class concatenated with the name of the method that implements the test case.

The Execution Details of the Generic Test contains information about the Test Suite, which in the case of the unit tests, corresponds to the name of the class.

Test Details

Test Type:

Generic

Definition:

MemeTest.test_that_it_will_not_blend

Results

Context	Error Message	Duration	Status
TestSuite MemeTest	-	0 millisec	PASSED

For the spec-related tests, they're mapped in a slightly different way: the multiple "describe" statements are concatenated using "::", along with the name of the "it" block, preceded by "test_<counter>".

Test Details

Test Type:

Generic

Definition:

Meme::when asked about cheeseburgers.test_0001_must respond positively

Results

Context	Error Message	Duration	Status
TestSuite Meme::when asked about cheeseburgers	-	0 millisec	PASSED

References

- <https://github.com/seattlerb/minitest>
- <https://github.com/kern/minitest-reporters>
- <https://github.com/aespinosa/minitest-junit>
- <https://github.com/Devskiller/devskiller-sample-ruby-calculator>