Best Practice Document

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# Abstract

The purpose of the document is to describe the best practices to be followed for Test Automation Project. This document describes about the best practices for Ruby based Test Automation Project.

# Introduction

While developing scripts for an automation project, it is good to follow the common standards and best practices which exist for Ruby. This will help everyone to understand the purpose of the script lines and flow created by all the team members. This will increase productivity, reduce rework efforts as well as easy to analyze and debug the code and hence, makes the automation script scalable and maintainable.

The following pages covers the best practice conventions for Ruby scripting that includes programming structures and patterns followed based on **Ruby-Cucumber** **best practices.**

# Programming Practices

## Attributes and Methods

* Using attr\_\* to access

Making the class or instance or method variables visible or hidden can set by attribute accessors like attr\_reader, attr\_writer, attr\_accessor etc.

Example :

*def foo()*

*@foo*

*end*

*attr\_reader :foo # males foo a read only variable*

* Reduce repetition

When successive lines of a script share a common class or module, move it to a local variable instead rewriting the same script multiple times.

Example :

x = ModuleA::ClassB.method\_c( a )

y = ModuleA::ClassB.method\_d( b )

you should make it like this:

cb = ModuleA::ClassB.new

x = cb.method\_c( a )

y = cb.method\_d( b )

You can also do (the best way):

include ModuleA

x = ClassB.method\_c(a)

y = ClassB.method\_d(b)

## Iterators

* Never use for statement

Never use for, unless you know exactly why. Most of the time iterators should be used instead.

Example :

arr = [1, 2, 3]

# bad

for elem in arr do

puts elem

end

# good

arr.each { |elem| puts elem }

* Prefer {...} over do...end

Prefer {...} over do...end for single-line blocks. Avoid using {...} for multi-line blocks (multiline chaining is always ugly). Always use do...end for "control flow" and "method definitions" (e.g. in Rakefiles and certain DSLs). Avoid do...end when chaining.

Example :

names = ["Bozhidar", "Steve", "Sarah"]

# good

names.each { |name| puts name }

# bad

names.each do |name|

puts name

end

## Classes

* Avoid calss << self

Avoid class << self except when necessary, e.g. single accessors and aliased attributes.

class TestClass

# bad

class << self

def first\_method

# body omitted

end

def second\_method\_etc

# body omitted

end

end

# good

class << self

attr\_accessor :per\_page

alias\_method :nwo, :find\_by\_name\_with\_owner

end

def self.first\_method

# body omitted

end

def self.second\_method\_etc

# body omitted

end

end

## Collections

* Arrays

Prefer %w to the literal array syntax when you need an array of strings

# bad

STATES = ["draft", "open", "closed"]

# good

STATES = %w(draft open closed)

* HashRockets

Use symbols instead of strings as hash keys.

# bad

hash = { "one" => 1, "two" => 2, "three" => 3 }

# good

hash = { :one => 1, :two => 2, :three => 3 }

Use hashrocket syntax for Hash literals instead of the JSON style introduced in 1.9.

# bad

user = {

login: "defunkt",

name: "Chris Wanstrath"

}

# bad

user = {

login: "defunkt",

name: "Chris Wanstrath",

"followers-count" => 52390235

}

# good

user = {

:login => "defunkt",

:name => "Chris Wanstrath",

"followers-count" => 52390235

}

## Exceptions

* Avoid using exceptions for flow of control

# bad

begin

n / d

rescue ZeroDivisionError

puts "Cannot divide by 0!"

end

# good

if d.zero?

puts "Cannot divide by 0!"

else

n / d

end

# Modification history

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