codecademy

# Object-Oriented Programming, Part II

## Ruby namespace

In Ruby, the term `namespace` refers to a module the contains a group of related objects. An example of a Ruby namespace is the `Math` module.

```
#To retrieve a constant from the Math module, the scope resolution operator (::), should be used.

puts Math::PI
# => 3.141592653589793

#In this example, Ruby is targetting the PI constant from the Math module using the scope resolution operator, (::), and printing its value to the console.
```

## Ruby require Keyword

In Ruby, the `require` keyword is used to fetch a certain module which isn't yet presented in the interpreter. It is best practice to place this at the beginning of your code.

```
require 'date'

puts Date.today
# => 2020-04-16
```

## Ruby Module

In Ruby, a *module* contains a set of methods, constants, or classes which can be accessed with the `.` operator similarly to classes . Unlike classes, it is impossible to create instances of a Ruby module.

```
#A Ruby module can be created using the module keyword followed by the module name written in CapitalizedCamelCase format finalized with an end.

module MyPizza
  FAVE_TOPPING = "Buffalo Chicken"
end
#In this example, myPizza is a module that holds a constant, FAVE_TOPPING, set equal to the string, Buffalo Chicken.
```

## Ruby attr_accessor Method

In Ruby, `attr_accessor`, used to make a variable both readable and writeable, is a shortcut to `attr_reader` and `attr_writer`.

```
class CollegeStudent
  attr_reader :dorm
  attr_accessor :major

  def initialize(dorm, major)
    @dorm = dorm
        @major  major
  end
end

#In this example, Ruby is able to only read the @dorm instance variable but both read and write the @major instance variable since it was passed to the attr_accessor method.
```