

Ruby 101

Ruby Basics: Iterators

Iterators:

```
Operate on:
```

each member of a data collection

```
first_five_integers = [1,2,3,4,5]
```

Run specific code on each member:

```
puts ...
```



How would I do this?

```
puts first_five_integers[0]
puts first_five_integers[1]
```

```
first_five_integers.each do |my_integer|
  puts my_integer
end
```



'each' iterator:

• a method called on a collection object

```
first_five_integers.each
```

• takes a program block as an argument

```
first_five_integers.each do
    ...
end
```



'each' iterator: continued

- supplies a variable to the block
- variable is a member of the data collection

```
first_five_integers.each do | my_integer |
   puts my_integer
end
```



```
Iterators
Why useful?
act as program loops for collections
DRY
Do not Repeat Yourself
```



'.each' with a hash

```
my_hash = {"orange" => true, "banana" => false}
my_hash.each do | key, value |
    ...
end
```



Try it yourself:

Write a program that asks the user whether they need a specific grocery item or not, then print out the grocery list at the end of the program. Use iterators so that code is not repeated unnecessarily.



```
grocery items = {"oranges" => false, "bananas" => false}
puts "Do you need:"
grocery items.each do | item, need for item
   puts item + "? (Y/N)"
   case gets
      when "Y\n"
          grocery items[item] = true
      when "N\n"
          grocery items[item] = false
   end
end
puts "Here's your list:"
grocery items.each do | item, need for item |
   puts item if need for item
end
```

