

Computer Programming

Lesson 3 - Arrays

Review

Arrays

Arrays

An array is a list of items in order (like vitamins, minerals, and chocolates).

Most of the time, you will be working with arrays of database objects. Other times, you will need to make a simple array of your own.

Arrays

You can make an array by using square brackets:

```
clues = ['vitamins', 'minerals', 'chocolates']
```

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```
clues = ['vitamins', 'minerals', 'chocolates']
```

Same array created from whitespace:

```
clues = %w(vitamins minerals chocolates)
```

Same array created in steps:

```
clues = Array.new  
clues << 'vitamins'  
clues << 'minerals'  
clues << 'chocolates'
```

Arrays

Ruby also has some shortcuts for commonly accessed attributes of an array.

```
2.0.0-p0 :004 > clues.first
```

```
=> "vitamins"
```

```
2.0.0-p0 :005 > clues.last
```

```
=> "chocolates"
```

```
2.0.0-p0 :006 > clues.length
```

```
=> 3
```

```
2.0.0-p0 :007 > █
```

Arrays

Traditional Array Iteration

```
for i in 0...length  
  puts "Clue #{i} is #{clues[i]}"  
end
```

```
$ ruby arrays.rb  
Clue 0 is vitamins  
Clue 1 is minerals  
Clue 2 is chocolates
```


Arrays

Ruby provides an easy way to iterate an array.

```
my_vitamins = ['b-12', 'c', 'riboflavin']  
  
my_vitamins.each do |vitamin|  
  puts "#{vitamin} is tasty!"  
end
```

```
b-12 is tasty!  
c is tasty!  
riboflavin is tasty!
```

<https://github.com/shawnewallace/beginning-programming>

Bubble Sort

“..simple sorting algorithm that works by repeatedly stepping through the list to be sorted, comparing each pair of adjacent items and swapping them if they are in the wrong order..”

6 5 3 1 8 7 2 4

http://en.wikipedia.org/wiki/Bubble_sort

Bubble Sort

toSort = [1, 5, 3, 2, 4]

expected = [1, 2, 3, 4, 5]

*BONUS: Sort in descending order

http://en.wikipedia.org/wiki/Bubble_sort

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