Array Cheat Sheet

Here is a quick reference for the methods and operations we learned in the previous lectures!

Manipulation

```
# add element(s) to the end using push
people = ["Tommy", "Bex"]
p people.push("Maurice", "Abby")      # prints ["Tommy", "Bex", "Maurice",
"Abby"]
p people                              # prints ["Tommy", "Bex", "Maurice",
"Abby"]

# remove the last element using pop
people = ["Tommy", "Bex"]
p people.pop()                        # prints "Bex"
p people                              # prints ["Tommy"]

# add elements(s) to the front using unshift
people = ["Tommy", "Bex"]
p people.unshift("Oscar", "Matthias") # prints ["Oscar", "Matthias",
"Tommy", "Bex"]
p people                              # prints ["Oscar", "Matthias",
"Tommy", "Bex"]

# remove the first element using shift
people = ["Tommy", "Bex"]
p people.shift()                      # prints "Tommy"
p people                              # prints ["Bex"]
```

Checking Existence

```
# check if an element exists in an array using include?
people = ["Tommy", "Bex", "Abby", "Maurice"]
p people.include?("Abby")    # prints true
p people.include?("Mashu")   # prints false

# find the index of an element in an array using index
people = ["Tommy", "Bex", "Abby", "Maurice"]
p people.index("Abby")       # prints 2
p people.index("Maurice")    # prints 3
p people.index("Oscar")      # prints nil
p people.index("Danny")      # prints nil
```

String <> Array

```
# convert a string into an array using split
sentence = "Hey Programmers! What's up."
p sentence.split(" ")      # prints ["Hey", "Programmers!", "What's",
"up."]
p sentence.split("a")      # prints ["Hey Progr", "mmers! Wh", "t's up."]
p sentence.split("gram")   # prints ["Hey Pro", "mers! What's up."]
p sentence                 # prints "Hey Programmers! What's up."

# convert an array into a string using join
words = ["Rubies", "are", "red"]
p words.join(" ")          # prints "Rubies are red"
p words.join("-")          # prints "Rubies-are-red"
p words.join("HI")         # prints "RubiesHIareHIred"
p words                    # prints ["Rubies", "are", "red"]
```

Array Enumerable Methods

```
people = ["Candace", "Jon", "Jose"]

# iterate over elements of an array using each
people.each { |person| puts person } # prints
# Candace
# Jon
# Jose

# iterate over elements of an array with index using each_with_index
people.each_with_index do |person, i|
  puts person
  puts i
  puts "-----"
end # prints
# Candace
# 0
# -----
# Jon
# 1
# -----
# Jose
# 2
# -----
```

String Enumerable methods

```ruby
greeting = "hello"

# iterate over characters of a string using each_char
greeting.each_char { |char| puts char } # prints
# h
# e
# l
# l
# o

# iterate over characters of a string with index using each_char.with_index
greeting.each_char.with_index do |char, i|
  puts char
  puts i
  puts "---"
end # prints
# h
# 0
# ---
# e
# 1
# ---
# l
# 2
# ---
# l
# 3
# ---
# o
# 4
# ---
```

Other

```ruby
# repeat a block using times
3.times do
  puts "hi"
end # prints
# hi
# hi
# hi

# specify a range of numbers using (start..end) or (start...end)

# including end
(2..6).each {|n| puts n} # prints
# 2
# 3
# 4
# 5
# 6

# excluding end
(2...6).each {|n| puts n} # prints
# 2
# 3
# 4
# 5
```