reverse.md 7/21/2020

Ruby reverse

First we need to know how to swap elements in an array

```
2.7.0 :020 > def swap(array, index1, index2)
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2.7.0 :021 > temp = array[index1]
2.7.0 :022 > array[index1] = array [index2]
2.7.0 :023 > array[index2] = temp
2.7.0 :024 > end
=> :swap
2.7.0 :025 > array = [1,2,3,4]
2.7.0 :026 > index1 = 0
2.7.0 :027 > index2 = 3
2.7.0 :028 > swap(array, index1, index2)
=> 1
2.7.0 :029 > array
=> [4, 2, 3, 1]
```

Now we have spap the first element with the last element, andvance to the next element until it reaches the center.

```
2.7.0 :042 > def reverse_string(string)
2.7.0 :043 > array = string.split('')
2.7.0 :044 > i = 0
2.7.0 :045 > j = array.length - 1
2.7.0 :046 > while i < j do
2.7.0 :047 > swap(array, i, j)
2.7.0 :048 > i += 1
2.7.0 :049 > j -= 1
2.7.0 :050 > end
2.7.0 :051 > array.join
2.7.0 :052 > end
=> :reverse_string
2.7.0 :053 > reverse_string('hello')
=> "olleh"
```