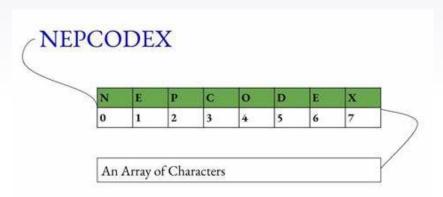
# STRINGS & ARRAYS



## Relationship

- An array is a sequential collection of elements of similar data types while a string is a sequence of characters
- Arrays can hold elements of any data type while strings contains only characters
- String is an array of characters.
- Strings are immutable but arrays are mutable.



## **Fast Facts**

#### **Strings**

Cost of Modification

Comparison

 How to convert string to array and vice versa

#### **Arrays**

Static and dynamic arrays

Multidimensional arrays

## **Common Operations**

- Accessing the ith element
- Finding the index of an element
- Iterating with or without index
- Getting the length
- Getting the sub (string or array)
- Splitting or slicing
- Checking if it contains an element

## **Common Patterns**

- Using a HashMap or Length-256 Integer Array
- Using two pointers
  - compare or swap
  - ▶ in-place
- Sliding window
  - ⊳ sub

## Common Mistakes

- Not knowing the string or array operations available in your language
- Time complexity of an operation
- Modifying strings

#### Resources

https://www.crackingthecodinginterview.com/ Arrays and Strings

https://leetcode.com/explore/learn/card/array-and-string/

https://www.byte-by-byte.com/strings/

### **Practice Questions**

#### **Beginner:**

https://leetcode.com/problems/reverse-string/

https://leetcode.com/problems/plus-one/

#### Intermediate:

https://leetcode.com/problems/string-compression/

https://leetcode.com/problems/container-with-most-water/

## **Problem Solving Process**

- Repeat the problem back to the interviewer
- Ask clarifying questions
- Draw out your own examples
- Brute Force Solution-
- Optimize
- Implement
- Test

state the complexity



## Feedback

https://bit.ly/algo-and-DS-feedback

