String

1. How do computers store character?
    a. Character set
    b. Character encoding
2. Character array, String
3. Read / Write String
    a. Understand how computers identify string ends
4. Find the length of a string
5. Change case of a String
6. Count words and vowels in a string
    a. Space/Spaces separate words
    b. What is a vowel? aeiou
7. Validate String
    a. Special String
8. Reverse String
    a. Create a new array and store the value backward of the first array using a loop
    b. Optimize using two-pointer and swap method
9. Compare two String
    a. Introduction of how computers compare two String
10. Check Palindrome
    a. Identify what is Palindrome (String remains the same if you reverse the String)
11. Finding duplicates in String
    a. HashTable with understanding ASI Table
12. Finding duplicates in a string using Bitwise Operation
    a. Knowing Bitwise Operation
    b. Understand the most significant bit and least significant bit
13. Check if 2 String are an anagram?
    a. What is an anagram?
14. Permutation of a String
    a. State Space Tree
    b. Back Tracking
    c. Brutal Force
    d. Recursion
    e. Swap