**SHEET- 19**

**Strings**

1. Write a program to return the maximum occurring character in the input string, e.g., if the input string is "Java" then the function should return 'a'.
2. Write a program to remove all the duplicate characters from a given input String, like, if the given String is "Java" then the output should be "Jav". The second or further occurrence of duplicates should be removed.
3. Write a program to test if two given String is a rotation of each other or not, e.g. if the given String is "XYZ" and "ZXY" then your function should return true, but if the input is "XYZ" and "YXZ" then return false.
4. Write a program to reverse a String in C/Java/Python or choice of your programming language. You can write either the recursive or iterative solution. For example, if a given input is "abcd," then your function should return "dcba".
5. Write a program to print all permutations of a given String in Java/C/Python or any programming language of your choice. For example, if given input is "123" then your program should print all 6 permutations e.g. "123", "132", "213", "231", "312" and "321".
6. Write a program to reverse the words in a given String sentence. For example, if the input is "Java is best," then your program should print "best is Java". There is no restriction on preserving white space.
7. Write a program to check if two String is an anagram of each other. An anagram contains are of the same length and contains the same character, but in a different order, for example, "Army" and "Mary" is the anagram. Your program should return true if both Strings are the anagram, false otherwise.
8. Write a program to count a number of words in a given String. The words are separated by the following characters: space (‘ ’) or newline (‘\n’) or tab (‘\t’) or a combination of these. For example, if input "Java is great" your program should print 3.
9. **Valid Palindrome**

A phrase is a **palindrome** if, after converting all uppercase letters into lowercase letters and removing all non-alphanumeric characters, it reads the same forward and backward. Alphanumeric characters include letters and numbers.

Given a string s, return true*if it is a****palindrome****, or*false*otherwise*.

Example 1:

Input: s = "A man, a plan, a canal: Panama"

Output: true

Explanation: "amanaplanacanalpanama" is a palindrome.

1. **Longest Common Prefix**

Write a function to find the longest common prefix string amongst an array of strings.

If there is no common prefix, return an empty string "".

Example 1:

Input: strs = ["flower","flow","flight"]

Output: "fl"

Example 2:

Input: strs = ["dog","racecar","car"]

Output: ""

Explanation: There is no common prefix among the input strings.