

ASSIGNMENT-1

Q1.)Swap Alternate

Given an array of length N, swap every pair of alternate elements in the array.

You don't need to print or return anything, just change in the input array itself.

Q2.)Find Unique

Given an integer array of size $2N + 1$. In this given array, N numbers are present twice and one number is present only once in the array.

You need to find and return that number which is unique in the array.

Q3.)Array intersection

Given two random integer arrays of size m and n, print their intersection. That is, print all the elements that are present in both the given arrays.

Input arrays can contain duplicate elements.

Q4.)Pair sum

Given a random integer array A and a number x. Find and print the pair of elements in the array which sum to x.

Array A can contain duplicate elements.

Q5.)Sort 0 1

You are given an integer array A that contains only integers 0 and 1. Write a function to sort this array. Find a solution which scans the array only once. Don't use extra array.

You need to change in the given array itself. So no need to return or print anything.

Q6.)Second Largest in array

Given a random integer array of size n, find and return the second largest element present in the array.

Q7.)Check array rotation

Given an integer array, which is sorted (in increasing order) and has been rotated by some number k in clockwise direction. Find and return the k.

Q8.)Rotate array

Given a random integer array of size n, write a function that rotates the given array by d elements (towards left)

Change in the input array itself. You don't need to return or print elements.

Q9.)Print All Substrings

Given a String S of length n, print all its substrings.

Substring of a String S is a part of S (of any length from 1 to n), which contains all consecutive characters from S

Q10.)Reverse String Word Wise

Reverse the given string word wise. That is, the last word in given string should come at 1st place, last second word at 2nd place and so on. Individual words should remain as it is.

Sample Input:

Welcome to Bient Technologies

Sample Output:

Technologies Bient to Welcome

Q11.)Check Permutation

Given two strings, check if they are permutations of each other. Return true or false.

Permutation means - length of both the strings should same and should contain same set of characters. Order of characters doesn't matter.

Q12.)Remove Consecutive Duplicates

Given a string, remove all the consecutive duplicates that are present in the given string. That means, if 'aaa' is present in the string then it should become 'a' in the output string.

Sample Input:

aabccbaa

Sample Output:

Abcba

Q13.)Highest Occuring Character

Given a string, find and return the highest occurring character present in the given string.

If there are 2 characters in the input string with same frequency, return the character which comes first.

Note : Assume all the characters in the given string are lowercase.

Q14.)Compress the String

Write a program to do basic string compression. For a character which is consecutively repeated more than once, replace consecutive duplicate occurrences with the count of repetitions.

For e.g. if a String has 'x' repeated 5 times, replace this "xxxxx" with "x5".

Note : Consecutive count of every character in input string is less than equal to 9.

Q15.)Reverse Each Word

Given a string S, reverse each word of a string individually. For eg. if a string is "abc def", reversed string should be "cba fed".