Problems based on sortings

Assignment Questions

PW SKILLS

Q1 - Given an array of strings arr[]. Sort given strings using Bubble Sort and display the sorted array. (Easy)

Input1:

n = 3

arr[] = [coding, is, fun]

Output2:

Coding fun is

Input2:

n = 5

arr[] = [string, two, is, this]

Output2:

is string this two

Q2 - Given a string s, return the string which contains all characters of s in lexicographical order. (Easy)

Input1:

coding

Output1:

cdgino

Input2:

abcde

Output2:

abcde

Q3 - Given an integer array and an integer k where k<size of array, We need to return the kth smallest element of the array. (Medium)

Input1:

n = 5

arr[] = [3,5,6,2,1]

k=3

Output1:

3

Input2:

n = 4

arr[] = [1,2,3,4]

k=4

Output2:

4

Q4 - Given an array of n elements, the task is to find the elements that are greater than half of elements in an array. In case of odd elements, we need to print elements larger than floor(n/2) elements where n is the total number of elements in the array. (Medium)

Input1:

n = 4

arr[] = [1, 6, 3, 4]

Output1:

4 6

Input2:

n = 5

arr[] = [10, 4, 2, 8, 9]

Output2:

10 9 8

Q5 - Given an array of digits (values are from 0 to 9), the task is to find the minimum possible sum of two numbers formed from digits of the array. Please note that all digits of the given array must be used to form the two numbers. (Medium)

Input1:

n = 6

arr[] = [6, 8, 4, 5, 2, 3]

Output1:

604

Input2:

n = 5

arr[] = [5, 3, 0, 7, 4]

Output2:

82

Q6 - Given an array with N distinct elements, convert the given array to a form where all elements are in the range from 0 to N-1. The order of elements is the same, i.e., 0 is placed in the place of the smallest element, 1 is placed for the second smallest element, ... N-1 is placed for the largest element. (Medium)

Input1:

n = 3

arr[] = {10, 40, 20}

Output1:

0 2 1

Input2:

n = 5

arr[] = {5, 10, 40, 30, 20}

Output2:

0 1 4 3 2

Q7-Given an array, sort it using insertion sort recursively. (Hard)

Input1:

n = 5

arr[] = [4,5,2,7,1]

Output1:

1 2 4 5 7

Input2:

n = 3

arr[] = [2,2,1]

Output2:

1 2 2