Week 10- Day 1 : Coding Challenge

(Maximum marks -15)

Q-1) Number of Good Pairs: (5 marks)

https://leetcode.com/problems/number-of-good-pairs/

Easy

Given an array of integers `nums`.

A pair `(i,j)` is called *good* if `nums[i]` == `nums[j]` and `i` < `j`.

Return the number of *good* pairs.

Example 1:

```
Input: nums = [1,2,3,1,1,3]
Output: 4
```

Explanation: There are 4 good pairs (0,3), (0,4), (3,4), (2,5) 0-indexed.

Q-2) Jewels and StonesJewels and Stones: (5 marks)

https://leetcode.com/problems/jewels-and-stones/

You're given strings `jewels` representing the types of stones that are jewels, and `stones` representing the stones you have. Each character in `stones` is a type of stone you have. You want to know how many of the stones you have are also jewels.

Letters are case sensitive, so `"a"` is considered a different type of stone from `"A"`.

Example 1:

Input: jewels = "aA", stones = "aAAbbbb"
Output: 3

Example 2:

Input: jewels = "z", stones = "ZZ"
Output: 0

Q-3) How Many Numbers Are Smaller Than the Current Number: (5 marks)
https://leetcode.com/problems/how-many-numbers-are-smaller-than-the-current-number/
Given the array nums, for each nums[i] find out how many numbers in the array are smaller than it. That is, for each nums[i] you have to count the number of valid j's such that j != i and nums[j] < nums[i].

Return the answer in an array.

Example 1:

Input: nums = [8,1,2,2,3]
Output: [4,0,1,1,3]
Explanation:
For nums[0]=8 there exist four smaller numbers than it (1, 2, 2 and 3).
For nums[1]=1 does not exist any smaller number than it.
For nums[2]=2 there exists one smaller number than it (1).
For nums[3]=2 there exists one smaller number than it (1).
For nums[4]=3 there exist three smaller numbers than it (1, 2 and 2).

Marks distribution:
Question 1,2 and 3 carry 5 marks each.