Assignment 1

Problem - 01: (Count Inversion)
Given an integers array **arr[]**, if **i < j** and **arr[i] > arr[j]** then the elements at indices i and j form an inversion, and the pair (i, j) is called the inversion of an array. You need to write a program to find the total counts of inversion in an array arr[].

Example:

- Input: int arr[] = {3, 2, 1}
- Output: 3

Explanation:
Inversion pairs in the given array are (3,2), (3,1) and (2,1). Thus, the count of inversion is 3.

Problem - 02: (Longest Common Prefix)
Given an array of strings **strs[]**, the longest common prefix is defined as the longest string that is a prefix of all strings in the array.
Write a function to find the longest common prefix string amongst all strings in the array. If there is no common prefix, return "**No common prefix is found**".

Example:

- Input: str = ["help","Hello","hell"]
- Output: "hel"

Explanation:
The longest common prefix is "hel".