CL1002 – Programming Fundamentals Lab

Exercise # 10

Note:

- Submit a pdf file containing all of your C code with all possible screenshots of every task outputs on Google Classroom.
- Copied task will be awarded **zero** marks.
- Note that these lab task marks could be graded through a viva in lab.
- Please submit your file with this naming convention (roll-no-name) i.e (22P-8743-Zain.pdf).

Problem: 1

Write a program that allocates an array of size 10. Store integers in the array using scanf in main. Then create a method named secondMax that will take the array as input argument, find and return the second maximum in this array.

Note: Use pointer notation instead of array indexes.

Problem: 2

Write a program that allocates an array of size 10. Store integers in the array using scanf in main. Then create a method named findMode that will take the array as input argument, find and print, appropriately labeled, the number that occurs most often. It there are ties, print only 1.

Note: Use pointer notation instead of array indexes.

Problem: 3

Write a program that allocates an array of size 10. Store random integers (ranging from 0 - 90) in the array. Then find an element from an array. Each element will be checked. If searched element exists multiple time, then its count will also be shown.

Note: Use pointer notation instead of array indexes.

Problem: 4

Implement a function that finds common elements in two arrays. You can assume that

the sets are stored using arrays. So, if array1 = {1,2,3,4,5,6,3,2} and array2 is {1,3,5,7},

then array3 should be {1,3,5}. Note array3 should not have any duplicate elements. You have to:

think of all the functions that are required for this problem. Each function should perform its dedicated task. So, plan them out before implementing them.

Main should only have a set of function calls.