

C – Programming

LAB 3

- 1- Write a C function that take two numbers and return an array containing all numbers between the two given numbers.

Examples:

Input→ 2, 6

Output→ 3, 4, 5

Input→ 10, 5

Output→ 6,7,8,9

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- 2- Write c function to find the most repeated number from (0 → 9) in an array of char (assume size of the array is large) try to optimize your code.
 - 3- Write c function to search for a number in array of integers.
 - 4- Write c function to sort an array of integers.

Assignment 3

- 1- Write a program in main to get 10 integers as an input from the user, store them in an array then call 3 different functions that returns the sum, maximum element and minimum element of the array.
- 2- Write a program to take two 2D (3*3) array from the user then do matrix multiplication on them.
- 3- Write a C function to take the first name from the user as string, then take the second name as a string then concatenate (merge) both in one array and return it.
- 4- Write c function to copy string to string without copy repeated characters then return string.

Examples:

Input→ "Sayed Sukkar"

Output→ "Sayed ukr"

- 5- Write c function to take 2 arrays and return an array by merging them in zigzag manner (one from the first array then one from the second array).

Example:

Input→ arr1={1,2,3,4,5}, arr2={11,12,13,14,15}

Output→ arr3={1,11,2,12,3,13,4,14,5,15}

- 6- Write a C function that return the count of the longest consecutive occurrence of a given number by the user in an array.

Example:

Input→ {1,2,2,3,3,3,3,4,4,4,4,3,3,3} // search for number 3

Output→ result = 4.

- 7- Write a C function that count the longest consecutive occurrence of any number, and return the number that is most repeated and the count of how many times it was repeated.

/ this function need to return the count and the number to the main ... do not print them in function */*

Example:

Input→ {1,2,2,3,3,3,3,4,4,4,4,3,3,3}

Output→ number 4 was repeated 5 times.

- 8- Implement bubble & selection sort.

- 9- Implement linear & binary search.