



Vietnamese-German University

Programming 1 - 61CSE103

Assignment 2

Time: 13h30 – 15h45

Day: November 7, 2024

The lecture notes are allowed during the assignment. Student needs to comment in detail for all C code.

Question 1: (10 points)

Write a C program to find the maximum and minimum of 4 input integer numbers. Then, check whether these maximum and minimum number are prime number or not using function.

Requirement:

- The 4 integer number inputted by user;
- Show the maximum number, minimum number and then check prime number or not.

Question 2: (10 points)

Write a program in C to find the sum of the series $1!/1 + 2!/2 + 3!/3 + 4!/4 + 5!/5 + 6!/6$ using the factorial function.

Question 3: (10 points)

Write a C Program to Convert a Given Number of Days in terms of Years, Weeks & Days using function.

Question 4: (10 points)

Write a C Program to Convert the given Binary Number into Decimal and then convert the output binary again to decimal number using function.

Question 5: (10 points)

Write a C program to calculate sum & average of an integer array with N elements?

Question 6: (10 points)

Write a C program to sort elements of an integer array in ascending/descending order using Bubble sort and selection sort algorithms.

Question 7: (10 points)

Write a program in C to count the total number of duplicate elements in an array.

Input the number of elements to be stored in the array :3

Input 3 elements in the array :

element - 0 : 5

element - 1 : 1

element - 2 : 1

Expected Output :

Total number of duplicate elements found in the array is : 1

Question 8: (15 points)

Write a program in C to find the sum of the right diagonals of a matrix.

Input the size of the square matrix : 2

Input elements in the first matrix :

element - [0],[0] : 1

element - [0],[1] : 2

element - [1],[0] : 3

element - [1],[1] : 4

Expected Output :

The matrix is :

1 2

3 4

Addition of the right Diagonal elements is :5

Question 9: (15 points)

Write a program in C to insert the values in the array (sorted list)..

Input number of elements you want to insert (max 100): 5

Input 5 elements in the array in ascending order:

element - 0 : 2

element - 1 : 3

element - 2 : 4

element - 3 : 7

element - 4 : 8

Input the value to be inserted : 5

The existing array list is :

2 3 4 7 8

After Insert the list is :

2 3 4 5 7 8

End