

(Do all the programs and options using functions/modules)

1. Write a menu driven program to do the following:
 1. Display n terms of natural numbers and display their sum
 2. Read n numbers from the user and to display the sum and average
 3. Display cube of numbers up to n
 4. Display square of numbers up to n
2. Write a menu driven program to do the following:
 1. Display Fibonacci series up to n
 2. Display a number in reverse order
 3. Find the sum of digits of a number
3. Write a menu driven-program to do the following:
 1. Linear search
 2. Selection Sort
 3. Bubble Sort
 4. Insertion Sort
4. Write a menu driven program to do the following:
 1. Display the unique elements in an array
 2. Display the array by removing the duplicate elements in the array
 3. Merge two arrays in descending order
 4. Insert a new value at its correct position in the array which is sorted in ascending order
5. Write a menu driven program to do the following:
 1. Read an array and display it in the matrix-form
 2. Check whether an array is a sparse array(if count of zero elements are more than half- we can call it a sparse array)
 3. to find the largest sum of contiguous subarray of an array
(The given array is : 8 3 8 -5 4 3 -4 3 5
The largest sum of contiguous subarray is : 21)