Assignment- 7
Practice Lab
Week 11: 20th -27th Oct, 2022

Lab 7 (8086 Simulator) :Array

1. **[CO3]** Write an ALP program to find smallest number in an array of 10 numbers using 8086 assembly language.

2. **[CO3]** Write an ALP program to find the square of the number from 0 to 9 using a Table of Square/lookup table.

3. **[CO3]** Write a ALP for addition of negative numbers stored in the even locations of an array and keep the odd location number as such and save the result at the location 0F00H.

4. **[CO3]** Write 8086 program to sum of bits of each nibble (4-bits) in a number of an array and store result in another array.
   Example:
   Input: Array-1: 74H,82H, and FCH
   *   Array-2: 31h,11h, 42h*

5. **[CO3]** Write an 8086 program to count the total numbers in an array which have even number of '1's. And display the count.
   Input array: 6,2,3,9,7,8,1,5
   Output: 04h

6. **[CO3]** Write 8086 program to compute numbers in an array (10 bytes) in which each number have lower nibble and higher nibble equal.
   Input No: 44H,52H, 55h and FCH
   Output: 02h

7. **[CO3]** Write 8086 program to compute sum of bits of each number of an array and store result in another array.
   Example: Input No: 74H, 82H, and FCH
   *   Output: 04h, 02, 06*

8. **[CO3]** WAP in 8086 Assembly to read an array of 5 numbers and store in Data segment. Enter another number X to search in an array, if found count the number of occurrences of that number in the inputted array. Send the result of occurrence to be printed on screen as number in words.
   Input: 5, 4, 5, 1, 2
   X=5
   Output: Two

9. **[CO3]** WAP in 8086 Assembly to read an array of 5 numbers and store in Data segment.

(i) Add the numbers; the result should be two digits number. Send the result to be printed on screen.

Input: 3, 4, 5, 1, 2
Output: 15

(ii) Sort the numbers that are stored above. Send the resultant array to screen.

Input: 3, 4, 5, 1, 2
Output: 1, 2, 3, 4, 5