DSA LAB ASSIGNMENTS || LAB_02

- WAP to reverse the contents of a array of n elements.
- WAP to search an element in array of n numbers.
- WAP to sort a array of n numbers in Descending Order.
- Given an unsorted array of size n, WAP to find and display the number of elements between two elements a and b (both inclusive). E.g. Input : arr = [1, 2, 2, 7, 5, 4], a=2 and b=5, Output : 4 and the numbers are: 2, 2, 7, 5.
- Given a array, WAP to print the next greater element (NGE) for every element. The next greater element for an element x is the first greater element on the right side of x in array. Elements for which no greater element exist, consider next greater element as -1. E.g. For the input array [2, 5, 3, 9, 7], the next greater elements for each elements are as follows.

Element	NGE
2	5
5	9
3	9
9	-1
7	-1

- Given an unsorted array arr and two numbers x and y, find the minimum distance between x and y in arr. The array might also contain duplicates. You may assume that both x and y are different and present in arr.
  Input: arr[] = {3, 5, 4, 2, 6, 5, 6, 6, 5, 4, 8, 3}, x = 3, y = 6
  Output: Minimum distance between 3 and 6 is 4.
- WAP to arrange the elements of a array such that all even numbers are followed by all odd numbers.
- Let A be nXn square matrix. WAP by using appropriate user defined functions for the following:

  a) Find the number of nonzero elements in A
  b) Find the sum of the elements above the leading diagonal.
  c) Display the elements below the minor diagonal.
  d) Find the product of the diagonal elements.