Lab Exercise

1. WAP to find out the smallest and largest element stored in an array of n integers.

2. WAP to reverse the contents of an array of n elements.

3. Given an unsorted array of size n, WAP to find the number of elements between two elements a and b (both inclusive).

   Input: arr = [1, 2, 2, 7, 5, 4], a=2 and b=5
   Output: 4
   (The numbers are: 2, 2, 5, 4)
   If a=6 b=15, then the output will be 0.

4. Given an array, WAP prints 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 the array. For elements for which no greater element exists, consider the next greater element as -1.
   Sample Input & Output

   For the input array [2,5,3,9,7], the next greater elements for each element are as follows.

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

5. 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.

Home Exercise

1. WAP to arrange the elements of an array such that all even numbers are followed by all odd numbers.

2. Write a program to replace every element in the array with the next greatest element present in the same array.

3. WAP to find the largest number and count the occurrence of the largest number in an array of n integers using a single loop.

4. You are given an array of 0^s and 1^s in random order. Segregate 0^s on the left side and 1^s on the right side of the array. Traverse array only once.