Lab Hand-out 5

Array

Task1

Write a program in C++ to identify number of even and odd elements of the array and print those elements along with their number.

Sample Output:

Enter array size: 7

Enter array elements:

12
9
0
0
0
5
0

The quantity of even number in the array is 1 and the number is 12

The quantity of odd numbers in the array is 2and the numbers are 5 and 9

Task2

Write a C++ program to sort an array in descending order.

Sample Output:

Enter array size: 7

Enter array elements:

12
9
0
0
0
5
0

Entered array is as follows:

[12, 9, 0, 0, 0, 5, 0]

Sorted array is as follows:

[12, 9, 5, 0, 0, 0, 0]

Example Demonstration:

Suppose the array is:
`[12, 9, 0, 0, 0, 5, 0]`

Step 1: Compare 12 with 9 → 12 is bigger → no swap.
Compare 12 with 0 → no swap.
Continue until the end — 12 stays in place.

Step 2: Compare 9 with 0 → 9 is bigger → no swap.
Compare 9 with 5 → 9 is bigger → no swap.

Step 3: Compare 0 with next elements → when it meets 5, 5 is bigger → **swap 0 and 5**.
Now array becomes `[12, 9, 5, 0, 0, 0, 0]`.

Step 4: Keep checking — no further swaps needed.

✅ **Final Sorted Array:** `[12, 9, 5, 0, 0, 0, 0]`