

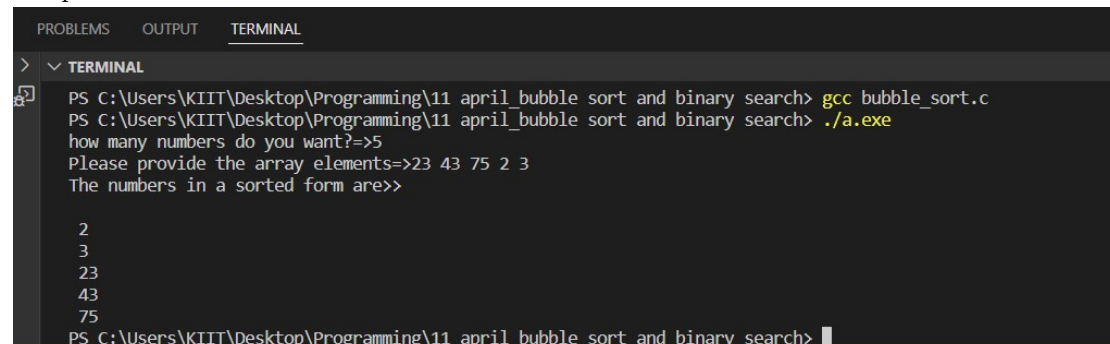
**Class 11 April Lab questions**

## #1. Bubble sort

Code:

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int a_285[30],n_285,i_285,j_285,temp_285,sorted_285;
    printf("how many numbers do you want?=>");
    scanf("%d",&n_285);
    if(n_285>30)
    {
        printf("Too many numbers!");
        exit(0);
    }
    printf("Please provide the array elements=>");
    for(i_285=0;i_285<n_285;i_285++)
    {
        scanf("%d",&a_285[i_285]);
    }
    for(i_285=0; i_285<n_285-1 && sorted_285==0; i_285++)
    {
        sorted_285=1;
        for(j_285=0; j_285<(n_285-i_285)-1;j_285++)
        if(a_285[j_285]>a_285[j_285+1])
        {
            temp_285 = a_285[j_285];
            a_285[j_285]=a_285[j_285+1];
            a_285[j_285+1]=temp_285;
            sorted_285=0;
        }
    }
    printf("The numbers in a sorted form are>>\n");
    for(i_285=0;i_285<n_285;i_285++)
    {
        printf("\n %d",a_285[i_285]);
    }
    return 0;
}
```

Output:



```
PROBLEMS  OUTPUT  TERMINAL
>  v  TERMINAL
PS C:\Users\KIIT\Desktop\Programming\11 april_bubble sort and binary search> gcc bubble_sort.c
PS C:\Users\KIIT\Desktop\Programming\11 april_bubble sort and binary search> ./a.exe
how many numbers do you want?=>5
Please provide the array elements=>23 43 75 2 3
The numbers in a sorted form are>>

2
3
23
43
75
PS C:\Users\KIIT\Desktop\Programming\11 april_bubble sort and binary search>
```

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```
PS C:\Users\KIIT\Desktop\Programming\11 april_bubble sort and binary search> ./a.exe
how many numbers do you want?=>6
Please provide the array elements=>13 43 12 12 3 5 5
The numbers in a sorted form are>>

3
5
12
12
13
43
PS C:\Users\KIIT\Desktop\Programming\11 april_bubble sort and binary search> |
```