

**Date:18.8.22**

### **Program 3: To perform Bubble Sort**

Code:

```
#include <stdio.h>
int main()
{
    int a[20],ub,lb=0,mid=(lb+ub)/2,value,size,temp,i,j;
    printf("enter size of array:");
    scanf("%d",&size);
    printf("enter array elements:");
    scanf("%d",&a[i]);
    for(i=1;i<size;i++)
    {
        scanf("%d",&a[i]);
    }
    for(i=0;i<size-1;i++)
    {
        for(j=0;j<size-1;j++)
        {
            if(a[j]>a[j+1])
            {
                temp=a[j];
                a[j]=a[j+1];
                a[j+1]=temp;
            }
        }
    }
    printf("the sorted list is:");
    for(i=0;i<size;i++)
    {
        printf("%d\n",a[i]);
    }
    return 0;
}
```

**Output:**

```
enter size of array:5
enter array elements:66
44
55
23
12
the sorted list is:12
23
44
55
66
```

## Program 4: To find 2<sup>nd</sup> largest element in an array

### Code:

```
#include<stdio.h>

int main()
{
    int arr[10],lar_el=0,Second_lar_el=0;
    int size,i;
    printf("Enter the size of array:");
    scanf("%d",&size);
    printf("Enter the array elements:\n");
    for(i=0;i<size;i++)
    {
        scanf("%d",&arr[i]);
    }
    for(i=0;i<size;i++)
    {
        if(lar_el<arr[i])
        {
            Second_lar_el=lar_el;
            lar_el=arr[i];
        }
        else if(Second_lar_el<arr[i])
        {
            Second_lar_el=arr[i];
        }
    }
    printf("The largest element is:%d\nSecond Largest element is:%d",lar_el,Second_lar_el);
    return 0;
}
```

### Output:

```
Enter the size of array:5
Enter the array elements:
23
23
44
55
12
The largest element is:55
Second Largest element is:44
```

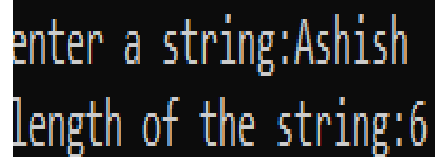
## Program 5: To calculate length of a string

### Code:

```
#include<stdio.h>

int main()
{
    char a[20];
    int i,length=0;
    printf("Enter the string:");
    scanf("%s",&a);
    for(i=0;a[i]!='\0';i++)
    {
        length++;
    }
    printf("length of String is: %d",i);
}
```

### Output:

A screenshot of a terminal window with a black background and yellow text. It shows the program's output for the input string "Ashish".

```
enter a string:Ashish
length of the string:6
```