

Aim:

Write a program to sort the elements in descending order with bubble sort technique using functions.

At the time of execution, the program should print the message on the console as:

Enter n value :

For example, if the user gives the input as:

Enter n value : 3

Next, the program should print the message on the console as:

Enter 3 elements :

if the user gives the input as:

Enter 3 elements : 45 67 34

then the program should print the result as:

Elements before sorting : 45 67 34
Elements after sorting : 67 45 34

Note: Write the functions read(), bubbleSort() and display() in sorta.c.

Source Code:

sort.c

```
#include <stdio.h>
#include "sorta.c"
void main() {
    int a[20], n, i;
    printf("Enter n value : ");
    scanf("%d", &n);
    printf("Enter %d elements : ",n);
    read(a, n);
    printf("Elements before sorting : ");
    display(a, n);
    bubbleSort(a, n);
    printf("Elements after sorting : ");
    display(a, n);
}
```

sorta.c

```
void read(int a[],int n)
{
    int i;
    for(i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
}
```

```

    }
}
void display(int a[],int n)
{
    int i;
    for(i=0;i<n;i++)
    {
        printf("%d ",a[i]);
    }
    printf("\n");
}
void bubbleSort(int a[],int n)
{
    int i,j,temp;
    for(i=0;i<n-1;i++)
    {
        for(j=i+1;j<n;j++)
        {
            if(a[j]>a[i])
            {
                temp=a[i];
                a[i]=a[j];
                a[j]=temp;
            }
        }
    }
}
}

```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter n value : 3
Enter 3 elements : 4 6 8
Elements before sorting : 4 6 8
Elements after sorting : 8 6 4

Test Case - 2
User Output
Enter n value : 5
Enter 5 elements : 34 56 71 26 17
Elements before sorting : 34 56 71 26 17
Elements after sorting : 71 56 34 26 17