S.No: 10	Exp. Name: ***Bubble Sort***	Date:2025-10-18

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Aim:

Write a C program that reads n integer numbers and arrange them in ascending order using Bubble Sort.

Input Format

- The first line contains an integer n, representing the size of the array.
- The second line contains n space-separated integers, representing the elements of the array.

Output Format

- The first line displays the original array before sorting.
- The second line displays the sorted array in ascending order.

Note :

- Refer to the visible test cases to strictly match with input/output layout.
- After each output, ensure that a new line is printed.

Source Code:

bubbleSort.c

```
#include <stdio.h>
void main(){
   int n;
   printf("n: ");
   scanf("%d", &n);
   int arr[n];
   printf("Elements: ");
   for(int i = 0; i<n; i++)
      scanf("%d", &arr[i]);
   printf("Before sorting: ");
   for(int i = 0; i<n; i++)
      printf("%d ", arr[i]);
   printf("\n");
   for(int i = 0; i<n-1; i++){
      for(int j = 0; j<n-i-1; j++){
         if(arr[j]>arr[j+1]){
            int t = arr[j];
            arr[j] = arr[j+1];
            arr[j+1] = t;
         }
      }
   }
   printf("After sorting: ");
   for(int i = 0; i<n; i++){
      printf("%d ", arr[i]);
   }
   printf("\n");
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
n: 4
Elements: 44 22 66 11
Before sorting: 44 22 66 11
After sorting: 11 22 44 66

Test Case - 2
User Output
n: 5
Elements: 9 2 7 1 6
Before sorting: 9 2 7 1 6
After sorting: 1 2 6 7 9