Insertion Sort:

```c
#include <stdio.h>

void insertionSort(int a[], int n)
{
    int i, j, key;
    //leftmost element is thought to be sorted
    for (i = 1; i < n; i++) //remaining elements pull out one by one
    {
        key = a[i];
        j = i - 1; //compare a[i] with left elements
        while (j >= 0 && key < a[j])
        {
            a[j + 1] = a[j];
            j--;
        }
        a[j + 1] = key; //j is reduced by 1 so add 1
    }
}

int main()
{
    int n, a[20];
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter the elements: ");

    for (int j = 0; j < n; j++)
        scanf("%d", &a[j]);
    insertionSort(a, n);
    printf("After sorting :");
    for (int j = 0; j < n; j++)
        printf("%d  ", a[j]);
}
```

OUTPUT:

```
User@PRATHIKSHA /c/ada lab
$ cd "/c/ada lab/" && gcc insertion_sort.c -o insertion_sort && "/c/ada lab/"insertion_sort
Enter number of elements: 7
Enter the elements: 10 0 -5 9 2 1 0
After sorting :-5  0  0  1  2  9  10
```