

```

#include<stdio.h>
#include<conio.h>
int n,i=0,j=0,t=0,k=0,a[30];
void main()
{
    clrscr();
    printf("\nEnter how many numbers you want to sort\n");
    scanf("%d",&n);
    printf("\nEnter the numbers \n");
    for (i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
    for (i=1;i<n;i++)
    {
        printf("\n\nPASS %d-->",i);
        t=a[i];
        for(j=i-1;((j>=0)&&(t<a[j]));j--)
            a[j+1]=a[j];
        a[j+1]=t; //j decreases
        for(k=0;k<n;k++)
            printf("%d ",a[k]);
    }
    printf("\n\nThe sorted list is : ");
    for (j=0;j<n;j++)
        printf("%d ",a[j]);
    getch();
}

```

-->>Sample Input and Output:

Enter how many elements you want to sort

5

Enter the numbers

5

4

3

2

1

PASS->1 1 5 4 3 2

PASS->2 1 2 5 4 3

PASS->3 1 2 3 5 4

PASS->4 1 2 3 4 5

Final sorted list is 1 2 3 4 5