

PROGRAM 16:

```
#include <stdio.h>

int main()
{
    int n, i, j, temp;
    int arr[64];
    printf("Enter number of elements\n");
    scanf("%d", &n);
    printf("Enter %d integers\n", n);
    for (i = 0; i < n; i++)
    {
        scanf("%d", &arr[i]);
    }
    for (i = 1 ; i <= n - 1; i++)
    {
        j = i;
        while ( j > 0 && arr[j-1] > arr[j])
        {
            temp = arr[j];
            arr[j] = arr[j-1];
            arr[j-1] = temp;
            j--;
        }
    }
    printf("Sorted list in ascending order:\n");
    for (i = 0; i <= n - 1; i++)
    {
        printf("%d ", arr[i]);
    }
    return 0;
```

}

OUTPUT:

```
C:\Users\AV\NAGA KAVYA\Documents\ds16.exe
Enter number of elements
4
Enter 4 integers
22
98
76
43
Sorted list in ascending order:
22 43 76 98
.....
Process exited after 42.15 seconds with return value 0
Press any key to continue . . .
```