

CollegeWork\DataStructure\insertion-sort-algorithm.cpp

```
1
2
3 // C++ program for insertion sort
4
5 #include <bits/stdc++.h>
6 using namespace std;
7 // insertion sort
8 void insertionSort(int arr[], int n)
9 {
10     int i, key, j;
11     for (i = 1; i < n; i++) {
12         key = arr[i];
13         j = i - 1;
14         while (j >= 0 && arr[j] > key) {
15             arr[j + 1] = arr[j];
16             j = j - 1;
17         }
18         arr[j + 1] = key;
19     }
20 }
21
22 int main()
23 {
24     int arr[] = { 12, 190, 18, 9, 6, 244, 0, -11, 27 };
25     int n = sizeof(arr) / sizeof(arr[0]);
26     insertionSort(arr, n);
27     cout << "Sorted array: \n";
28     int i;
29     for (i = 0; i < n; i++) {
30         cout << arr[i] << " ";
31     }
32     return 0;
33 }
34
35 /*
36 OUTPUT
37
38 PS S:\Workspace\CollegeWork\DataStructure> g++ .\selection-sort-algorithm.cpp
39 PS S:\Workspace\CollegeWork\DataStructure> ./a
40 Sorted array:
41 -11 0 1 2 6 9 18 23 24 27 244
42 PS S:\Workspace\CollegeWork\DataStructure>
43 */
```