

insertion-sort-algorithm.cpp

```
// C++ program for insertion sort
#include <iostream>
using namespace std;

// insertion sort
void insertionSort(int arr[], int n)
{
    int i, key, j;
    for (i = 1; i < n; i++) {
        key = arr[i];
        j = i - 1;
        while (j >= 0 && arr[j] > key) {
            arr[j + 1] = arr[j];
            j = j - 1;
        }
        arr[j + 1] = key;
    }
}

int main()
{
    int arr[] = { 12, 190, 18, 9, 6, 244, 0, -11, 27 };
    int n = sizeof(arr) / sizeof(arr[0]);
    insertionSort(arr, n);
    cout << "Sorted array: \n";
    int i;
    for (i = 0; i < n; i++) {
        cout << arr[i] << " ";
    }
    return 0;
}
```

OUTPUT

```
PS S:\Workspace\CollegeWork\DataStructure\Temp> g++ .\insertion-sort-algorithm.cpp
PS S:\Workspace\CollegeWork\DataStructure\Temp> ./a
Sorted array:
-11 0 6 9 12 18 27 190 244
PS S:\Workspace\CollegeWork\DataStructure\Temp>
```