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//C++ implementation of Insertion Sort



#include <iostream>
#include <vector>
using namespace std;

void insertionSort(std::vector<int>& arr) {
    int n = arr.size();
    for (int i = 1; i < n; ++i) {
        int key = arr[i];
        int j = i - 1;
        while (j >= 0 && arr[j] > key) {
            arr[j + 1] = arr[j];
            --j;
        }
        arr[j + 1] = key;
    }
}
void printVector(const std::vector<int>& arr) {
    for (int val : arr) {
        std::cout << val << " ";
    }
    std::cout << std::endl;
}
int main() {
    std::vector<int> numbers = {5, 2, 9, 1, 5, 6};

    std::cout << "Original array: ";
    printVector(numbers);
```

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    insertionSort(numbers);

    std::cout << "Sorted array:   ";
    printVector(numbers);

    return 0;
}
//Sorted array[1 2 5 5 6 9]
```