```cpp
/*--------Insertion Sort( O(n^2) for worst & average csaes O(n) for the

#include<iostream>
using namespace std;

void inputArray(int arr[], int n)
{
    cout << "Enter the elements of your array: \n";
    for(int i = 0; i < n; i++)
    {
        cin >> arr[i];
    }
}

void printArray(int arr[], int n)
{
    for(int i = 0; i < n; i++)
    {
        cout << arr[i] << " ";
    }
}

void swap(int arr[], int i, int j)
{
    int temp = arr[i];
    arr[i] = arr[j];
    arr[j] = temp;
}

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

int main()
{
```

```
47:     int n;
48:     cout << "Enter the length: \n";
49:     cin >> n;
50:
51:     int arr[n];
52:     inputArray(arr, n);
53:
54:     insertionSort(arr, n);
55:
56:     cout << "Sorted array is: \n";
57:     printArray(arr, n);
58:
59:     return 0;
60: }
```