Code:

```
#include <bits/stdc++.h>
using namespace std;

void insertionSort(int arr[], int n) {

  int i, j, key;

  for (int 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;

    cout << "\n Array after pass " << i << " : ";
    for (int k = 0; k < n; k++) {

      cout << arr[k] << " ";
    }
    cout << endl;
  }
}

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

int main() {
  int n;
  cout << "Enter the size of the array: ";
  cin >> n;

  int arr[n];
  cout << "\nEnter the array elements before sorting: " << endl;
  for (int i = 0; i < n; i++) {
    cin >> arr[i];
  }

  insertionSort(arr, n);
```

```
  cout << "\nArray after sorting: " << endl;
  printArray(arr, n);

  return 0;
}

// The best case time complexity : O(n)
// The average case time complexity : O(n)
// The worst case time complexity : O(n2)
```

Sample Output:

```
Enter the size of the array: 5
Enter the array elements before sorting:
85 69 41 25 31
Array after pass 1 : 69 85 41 25 31

Array after pass 2 : 41 69 85 25 31

Array after pass 3 : 25 41 69 85 31

Array after pass 4 : 25 31 41 69 85

Array after sorting:
25 31 41 69 85
```