

```
1 #include <stdio.h>
2
3 void insertionSort(int arr[], int n) {
4     int i, key, j;
5     for (i = 1; i < n; i++) {
6         key = arr[i];
7         j = i - 1;
8
9         // Move elements of arr[0..i-1] that are greater than key to one position ahead of their current position
10        while (j >= 0 && arr[j] > key) {
11            arr[j + 1] = arr[j];
12            j = j - 1;
13        }
14        arr[j + 1] = key;
15    }
16 }
17
18 void printArray(int arr[], int size) {
19     for (int i = 0; i < size; i++)
20         printf("%d ", arr[i]);
21     printf("\n");
22 }
23
24 int main() {
25     int arr[] = {100, 90, 80, 70, 60, 50, 40, 30, 20, 10};
26     int n = sizeof(arr) / sizeof(arr[0]);
27
28     printf("Original array: ");
29     printArray(arr, n);
30
31     insertionSort(arr, n);
32
33     printf("Sorted array: ");
34     printArray(arr, n);
35
36     return 0;
37 }
```