

EXERCISE-73; Insertion sort

PROGRAM;

```
def insertion_sort(arr):  
    for i in range(1, len(arr)):  
        key = arr[i]  
        j = i - 1  
        while j >= 0 and key < arr[j]:  
            arr[j + 1] = arr[j]  
            j -= 1  
        arr[j + 1] = key  
arr = [69, 28, 2, 28, 12]  
insertion_sort(arr)  
print("Sorted array is:", arr)
```

OUTPUT;

```
Sorted array is: [2, 12, 28, 28, 69]
```

TIME COMPLEXITY; $O(n^2)$