

### 73.Insertion Sort

AIM:Python program to sort an elements by using 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  
    return arr  
  
arr = [12, 11, 13, 5, 6]  
sorted_arr = insertion_sort(arr)  
print("Sorted array is:", sorted_arr)
```

```
Sorted array is: [5, 6, 11, 12, 13]
```

OUTPUT:

TIME COMPLEXITY:  $O(n^2)$