EXERCISE-81 Quick sort

PROGRAM

```
def quick_sort(arr):
    if len(arr) <= 1:
        return arr
    pivot = arr[len(arr) // 2]
    left = [x for x in arr if x < pivot]
    middle = [x for x in arr if x == pivot]
    right = [x for x in arr if x > pivot]
    return quick_sort(left) + middle + quick_sort(right)
arr = [3, 6, 8, 10, 1, 2, 9]
print(quick_sort(arr))
```

OUTPUT

```
-------- RESTART: C:/use
[1, 2, 3, 6, 8, 9, 10]
```

TIME COMPLEXITY $O(n\log n)$ $AND\ WORST\ CASE\ IN\ O(n_2)$