

WK04\quickSort.py

```
1 x = [13,86,35,1,100,45,11,6,67,65,2,7,23,23,23,87,38,67,31,99,1,1,100]
2 y = [13,86,35,1,100,45,11,6,67,65,2,7,23,23,23,87,38,67,31,99,1,1,100]
3
4 def quickSort(arr):
5     if len(arr) <= 0:
6         return arr
7
8     pivot_i = len(arr)//2
9     pivot = arr[pivot_i]
10    left, mid, right = [], [], []
11
12    for i in arr:
13        if i < pivot:
14            left += [i]
15
16    for j in arr:
17        if j == pivot:
18            mid += [j]
19
20    for k in arr:
21        if k > pivot:
22            right += [k]
23
24    return quickSort(left) + mid + quickSort(right)
25
26 print("unsorted:\t", x)
27 print("quickSort:\t", quickSort(x))
28 print("Python sort:\t", sorted(y))
```