

p - pivot

left < p equal = p right > p

arr = [5, 7, 4, 3, 8]

p = arr[0] = 5

arr divided as: left = {4, 3}, equal = {5}, right = {7, 8}

Two solutions: {4, 3, 5, 7, 8} or {3, 4, 5, 8, 7}

5 : 4 5 3 7 2 \Rightarrow 3 2 4 5 7

arr = {4, 5, 3, 7, 2}

p = arr[0] = 4

left = {} ; equal = {4} ; right = {}

arr[1] = 5 > p, add to right array

left = {} ; equal = {4} ; right = {5}

arr[2] = 3 < p, add to left array

left = {3} ; equal = {4} ; right = {5}

arr[3] = 7 > p, add to right array

left = {3} ; equal = {4} ; right = {5, 7}

arr[4] = 2 < p, add to left array

left = {3, 2} ; equal = {4} ; right = {5, 7}

3 2 4 5 7 or 2 3 4 5 7