**Quick Sort Practical**

**Input:**

def quickSort(alist):

quickSortHelper(alist, 0, len(alist)-1)

def quickSortHelper(alist, first, last):

if first < last:

splitpoint = partition(alist, first, last)

quickSortHelper(alist, first, splitpoint-1)

quickSortHelper(alist, splitpoint+1, last)

def partition(alist, first, last):

pivotvalue = alist[first]

leftmark = first+1

rightmark = last

done = False

while not done:

while leftmark <= rightmark and alist[leftmark] <= pivotvalue:

leftmark = leftmark+1

while alist[rightmark] >= pivotvalue and rightmark >= leftmark:

rightmark = rightmark-1

if rightmark < leftmark:

done = True

else:

temp = alist[leftmark]

alist[leftmark] = alist[rightmark]

alist[rightmark] = temp

temp = alist[first]

alist[first] = alist[rightmark]

alist[rightmark] = temp

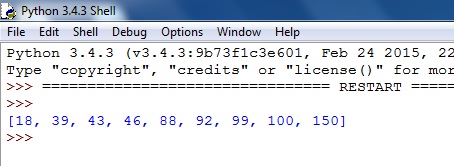
return rightmark

alist = [18, 43, 39, 46, 88, 92, 99, 150, 100]

quickSort(alist)

print(alist)

**Output:**

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