Practice 04:

Implementation of Cycle Sort in Python

Code:

def cycleSort(array):

writes = 0

for cycleStart in range(0, len(array) - 1):

item = array[cycleStart]

pos = cycleStart

for i in range(cycleStart + 1, len(array)):

if array[i] < item:

pos += 1

if pos == cycleStart:

continue

while item == array[pos]:

pos += 1

array[pos], item = item, array[pos]

writes += 1

while pos != cycleStart:

pos = cycleStart

for i in range(cycleStart + 1, len(array)):

if array[i] < item:

pos += 1

while item == array[pos]:

pos += 1

array[pos], item = item, array[pos]

writes += 1

return writes

# Main Function

arr = [1, 8, 3, 9, 10, 10, 2, 4 ]

n = len(arr)

cycleSort(arr)

print("After sort : ")

for i in range(0, n) :

print(arr[i], end = ' ')