



ชื่อ : 3
เลขที่ : 65510870
ชื่อ : 3
ชื่อ : 3

Chapter : 9 - item : 1 - bubble sort [recursive]

หัวข้อ : 2 / 2

จำนวน : 2 ครั้ง

เขียน function bubble sort ด้วย recursive list จาก input list จาก recursive
ห้ามใช้ while หรือ for while ใช้ Built-in Function ที่ให้มา Sort only sort
ห้ามใช้ for loop หรือ input วนซ้ำ

You have got full mark !!!

Last submission :



```
13 input[i], input[i+1] = input[i+1], input[i]
14 recurser(input, n, input)
15
16
17 def callrecur(i, n, input):
18     if i == n:
19         return
20     recurser(i, n, input)
21     callrecur(i+1, n, input)
22
23
24 inp = list(map(int, input('Enter Input : ').split()))
25 callrecur(0, len(inp)-1, inp)
26 print(inp)
27
```

Number of testcase : 6

Testcase student: #1/6



Enter Input : 4 3 2 1
[1, 2, 3, 4]

Enter Input : 4 3 2 1
[1, 2, 3, 4]

Testcase student: #2/6



Enter Input : 3 2 1 5 6 7
[1, 2, 3, 5, 6, 7]

Enter Input : 3 2 1 5 6 7
[1, 2, 3, 5, 6, 7]

Testcase student: #3/6



Enter Input : 1 2 3 4 5
[1, 2, 3, 4, 5]

Enter Input : 1 2 3 4 5
[1, 2, 3, 4, 5]

Testcase student: #4/6



This testcase is hidden.

Testcase student: #5/6



This testcase is hidden.



จำนวน : 2 / 2 ดาวน์โหลด 1 ครั้ง

เขียน function Straight Selection Sort เพื่อรับข้อมูลมา list จากผู้ใช้และใช้ recursive และแสดงขั้นตอนของ Straight Selection Sort ตามตัวอย่าง

```
***กำหนดว่า สำหรับ loop ภายใน เช่น for, while ให้ใช้ Built-in Function ที่เกี่ยวข้อง Sort เช่น sort***
***อย่าใช้วิธี for โดยรับข้อมูลมา input เท่านั้น***
```

Last submission :

```

1  """
2  * email : 2000003
3  * @title: Merge Sort
4  * @author : jay kumar
5  * Assigned : Friday 12th of November 2021 10:49:41 PM
6  * Submitted : Friday 12th of November 2021 10:54:56 PM
7  * filename : StrangSelectionSort.py
8  * elapsed time : 5 minutes.
9  """
10 def get_max_index(list):
11     right = len(list)-1
12
13     if list[right] >= max(list) and right-1 >= 0:
14         return get_max_index(list[right])
15     else:
16         return right

```

Testcase student: #1/8

```
Enter Input : 5 4 3 1 2
swap 2 <-> 5 : [2, 4, 3, 1, 5]
swap 1 <-> 4 : [2, 1, 3, 4, 5]
swap 1 <-> 2 : [1, 2, 3, 4, 5]
```

```
Enter Input : 40 20 30 10 50
swap 10 <-> 40 : [10, 20, 30, 40, 50]
[10, 20, 30, 40, 50]
```

```
Enter Input : 1 2 3 4
[1, 2, 3, 4]
```

This testcase is hidden.



```

9 def get_max_index(lst):
10     right = len(lst)-1
11
12     if lst[right] != max(lst) and right-1 >= 0:
13         return get_max_index(lst[:right])
14     else:
15         return right

```

Testcase student: #1/8

```
Enter Input : 5 4 3 1 2
swap 2 <-> 5 : [2, 4, 3, 1, 5]
swap 1 <-> 4 : [2, 1, 3, 4, 5]
swap 1 <-> 2 : [1, 2, 3, 4, 5]
```

```
Enter Input : 40 20 30 10 50
swap 10 <-> 40 : [10, 20, 30, 40, 50]
[10, 20, 30, 40, 50]
```

```
Enter Input : 1 2 3 4
[1, 2, 3, 4]
```

This testcase is hidden.

This testcase is hidden.

This testcase is hidden.

This testcase is hidden.

This testcase is hidden.



name : 3
email : 63010810
姓 : 3
姓 : 3

Chapter : 9 - item : 3 - insertion sort [recursive]

Results : 2/2

Attempt 1 left

def insertion_sort_recursive(arr):
 """Recursive function to sort a list using insertion sort"""
 if len(arr) < 2:
 return arr
 else:
 insertion_sort_recursive(arr[1:])
 insert(arr[0], arr[1:])
 return arr

You have got full mark !!

Last submission :

```
1 # ...  
2 # name : 2330000  
3 # chapter : 9 item : 3  
4 # chapter : 9 item : 3  
5 # Assigned : Friday 12th of November 2021 10:50:10 PM --> Submission : Friday 12th of November 2021 10:55:13 PM  
6 # Elapsed time : 5 minutes  
7 # filename : Insertionsort.py  
8 ...  
9 # shift list value and return insertion index  
10 def insertion_index(list, curr_index, value):  
11     # if this is not where to insert  
12     if curr_index > 0 and list[curr_index - 1] > value:  
13         list[curr_index] = list[curr_index - 1] # shift list element  
14         # compare with another element  
15         return insertion_index(list, curr_index - 1, value)
```

Number of testcase : 8

Testcase student #1/8

```
Enter Input : 1 2 3 4  
Insert 3 at index 1 : [1, 2] [3, 4]  
Insert 3 at index 2 : [1, 2, 3] [4]  
Insert 4 at index 3 : [1, 2, 3, 4]  
sorted  
[1, 2, 3, 4]
```

```
Enter Input : 1 2 3 4  
Insert 3 at index 1 : [1, 2] [3, 4]  
Insert 3 at index 2 : [1, 2, 3] [4]  
Insert 4 at index 3 : [1, 2, 3, 4]  
sorted  
[1, 2, 3, 4]
```

Testcase student #2/8

```
Enter Input : 1 2 3 4  
Insert 3 at index 1 : [1, 3] [4, 2]  
Insert 4 at index 2 : [1, 3, 4] [2]  
Insert 2 at index 3 : [1, 2, 3, 4]  
sorted  
[1, 2, 3, 4]
```


```
Enter Input : 1 2 3 4  
Insert 3 at index 1 : [1, 3] [4, 2]  
Insert 4 at index 2 : [1, 3, 4] [2]  
Insert 2 at index 3 : [1, 2, 3, 4]  
sorted  
[1, 2, 3, 4]
```

Testcase student #3/8

This testcase is hidden.

Testcase student #4/8

This testcase is hidden.



คะแนน : 3

รหัสบัตรประจำตัว : 03010870

นามสกุล : พงศา กุลศรี

ชื่อ : ช่าง

โรงเรียน : มอ.ตรัง

Chapter : 9 - item : 4 - Find the Running Median

สถานะ : 2/2

Completed 2 min

เขียนโปรแกรมที่ทำการหาค่ามัธยฐานของข้อมูลที่เป็น list เพื่อหาค่ามัธยฐานของข้อมูลที่เป็น list โดยจะเรียงลำดับจากข้อมูลที่เป็น list เพื่อ 1 ตัวจากต้นสุดของ list ไปเรื่อยจนครบ โดยในการหาค่ามัธยฐานเราต้องเรียงข้อมูลตามจำนวนจากน้อยไปหามากที่สุดก่อน

ห้ามใช้ Built-in Function ที่เกี่ยวกับ Sort เช่น sort, min, max, len

```
def findRunningMedian(input):
    n = len(input)
    for i in range(1, n):
        if i % 2 == 1:
            # odd case
            print("Extra Question : What is a suitable sort algorithm?")
            print("Your Answer : \"\"")
        else:
            # even case
            print("Your Answer : \"\"")
    return input
```

Test case ให้หาทั้งเลขคี่ และเลขคู่ และให้คิดค่ามัธยฐานจากข้อมูลที่เป็น list


ให้หาค่ามัธยฐานของข้อมูลที่เป็น list โดยเรียงลำดับจากข้อมูลที่เป็น list เพื่อ 1 ตัวจากต้นสุดของ list ไปเรื่อยจนครบ โดยในการหาค่ามัธยฐานเราต้องเรียงข้อมูลตามจำนวนจากน้อยไปหามากที่สุดก่อน

- bubble sort
- straight selection sort
- insertion sort
- shell sort
- merge sort
- quick sort
- minHeap and maxHeap

พิมพ์ค่าคำตอบลงในช่อง Answer = "xxx"


อย่าลืมกดปุ่ม Submit หลังจากทำเป็นอันสุดท้าย

You have got full mark !!!

Last submission : 


```
1 ***
2 * equid : 28800000
3 * 03010870 พงศา กุลศรี
4 * chapter : 9 item : 4 equid : 0002
5 * Assigned : Friday 12th of November 2021 18:55:17 PM --> Submission : Friday 12th of November 2021 18:57:29 PM
6 * Elapsed time : 1 minutes.
7 * filename : BubbleSort.py
8 ***
9
10 class Main:
11     def __init__(self, arr=[]):
12         self.heap = []
13         if arr is not None:
14             for root in arr:
15                 self.push(root)
```

Number of testcase : 7

Testcase student : #1/7 

Enter Input : 1 2 3 4 5 6 7 8 9
list = [1] : median = 1.0
list = [1, 2] : median = 1.5
list = [1, 2, 3] : median = 2.0
list = [1, 2, 3, 4] : median = 2.5
list = [1, 2, 3, 4, 5] : median = 3.0
list = [1, 2, 3, 4, 5, 6] : median = 3.5
list = [1, 2, 3, 4, 5, 6, 7] : median = 4.0
list = [1, 2, 3, 4, 5, 6, 7, 8] : median = 4.5
list = [1, 2, 3, 4, 5, 6, 7, 8, 9] : median = 5.0

Enter Input : 1 2 3 4 5 6 7 8 9
list = [1] : median = 1.0
list = [1, 2] : median = 1.5
list = [1, 2, 3] : median = 2.0
list = [1, 2, 3, 4] : median = 2.5
list = [1, 2, 3, 4, 5] : median = 3.0
list = [1, 2, 3, 4, 5, 6] : median = 3.5
list = [1, 2, 3, 4, 5, 6, 7] : median = 4.0
list = [1, 2, 3, 4, 5, 6, 7, 8] : median = 4.5
list = [1, 2, 3, 4, 5, 6, 7, 8, 9] : median = 5.0



คะแนน : 3


รหัสบัตรประจำตัว : 03010870

นามสกุล : พงศา กุลศรี

ชื่อ : ช่าง


โรงเรียน : มอ.ตรัง

Number of testcase : 7

Testcase student : #1/7 


Enter Input : 1 2 3 4 5 6 7 8 9
list = [1] : median = 1.0
list = [1, 2] : median = 1.5
list = [1, 2, 3] : median = 2.0
list = [1, 2, 3, 4] : median = 2.5
list = [1, 2, 3, 4, 5] : median = 3.0
list = [1, 2, 3, 4, 5, 6] : median = 3.5
list = [1, 2, 3, 4, 5, 6, 7] : median = 4.0
list = [1, 2, 3, 4, 5, 6, 7, 8] : median = 4.5
list = [1, 2, 3, 4, 5, 6, 7, 8, 9] : median = 5.0

Enter Input : 1 2 3 4 5 6 7 8 9
list = [1] : median = 1.0
list = [1, 2] : median = 1.5
list = [1, 2, 3] : median = 2.0
list = [1, 2, 3, 4] : median = 2.5
list = [1, 2, 3, 4, 5] : median = 3.0
list = [1, 2, 3, 4, 5, 6] : median = 3.5
list = [1, 2, 3, 4, 5, 6, 7] : median = 4.0
list = [1, 2, 3, 4, 5, 6, 7, 8] : median = 4.5
list = [1, 2, 3, 4, 5, 6, 7, 8, 9] : median = 5.0

Testcase student : #2/7 


Enter Input : 4 3 1 5 2 7 9 8
list = [4] : median = 4.0
list = [4, 3] : median = 3.5
list = [4, 3, 1] : median = 3.0
list = [4, 3, 1, 5] : median = 3.5
list = [4, 3, 1, 5, 2] : median = 3.0
list = [4, 3, 1, 5, 2, 7] : median = 3.5
list = [4, 3, 1, 5, 2, 7, 9] : median = 4.0
list = [4, 3, 1, 5, 2, 7, 9, 8] : median = 4.5

Enter Input : 4 3 1 5 2 7 9 8
list = [4] : median = 4.0
list = [4, 3] : median = 3.5
list = [4, 3, 1] : median = 3.0
list = [4, 3, 1, 5] : median = 3.5
list = [4, 3, 1, 5, 2] : median = 3.0
list = [4, 3, 1, 5, 2, 7] : median = 3.5
list = [4, 3, 1, 5, 2, 7, 9] : median = 4.0
list = [4, 3, 1, 5, 2, 7, 9, 8] : median = 4.5


Testcase student : #3/7 

Enter Input : 5 4 3 2 1
list = [5] : median = 5.0
list = [5, 4] : median = 4.5
list = [5, 4, 3] : median = 4.0
list = [5, 4, 3, 2] : median = 3.5
list = [5, 4, 3, 2, 1] : median = 3.0


Enter Input : 5 4 3 2 1
list = [5] : median = 5.0
list = [5, 4] : median = 4.5
list = [5, 4, 3] : median = 4.0
list = [5, 4, 3, 2] : median = 3.5
list = [5, 4, 3, 2, 1] : median = 3.0

Testcase student : #4/7 

This testcase is hidden.

Testcase student : #5/7 

This testcase is hidden.

Testcase student : #6/7 

This testcase is hidden.



name : 3
email : 82010870
name : 82010870
name : 82010870
name : 82010870

Chapter : 9 - item : 5 - Sort Subset

ANSWER 2/2

Answer 1/1

ให้เขียน input 2 ตัวมาใส่ช่องว่าง /
1. ช่องว่าง ตัวแรก
2. ช่องว่าง ตัวที่สอง
ตัวอย่าง input 2 ตัวมาใส่ช่องว่าง /
1. ให้เขียน input 2 ตัวมาใส่ช่องว่าง /
2. ตัวอย่าง input 2 ตัวมาใส่ช่องว่าง /

===== Sub-Function สำหรับ Sort ให้เขียน Sort 2 ตัวมาใส่ช่องว่าง import

===== Test Case 1 :

```
1 1  
2 1 2  
3 1 2 3  
4 1 2 3 4  
5 1 2 3 4 5  
6 1 2 3 4 5 6  
7 1 2 3 4 5 6 7  
8 1 2 3 4 5 6 7 8  
9 1 2 3 4 5 6 7 8 9  
10 1 2 3 4 5 6 7 8 9 10  
11 1 2 3 4 5 6 7 8 9 10 11  
12 1 2 3 4 5 6 7 8 9 10 11 12  
13 1 2 3 4 5 6 7 8 9 10 11 12 13  
14 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
15 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
16 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  
17 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18  
19 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19  
20 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
```

You have got full mark !!!

Last submission :

```
1 ...  
2 * name : 82010870  
3 * email : 82010870  
4 * chapter : 9 item : 5 * email : 82010870  
5 * assigned : Friday 22th of November 2021 10:51:03 PM --> Submission : Friday 22th of November 2021 10:51:04 PM  
6 * Elapsed time : 7 minutes  
7 * filename : SortSubset.py  
8 ...  
9 def bubbleSortLength(sublist):  
10     for loop in range(1, len(sublist)):  
11         swap = False  
12  
13         for i in range(len(sublist) - loop):  
14             if len(sublist[i]) > len(sublist[i + 1]):  
15                 sublist[i], sublist[i + 1] = sublist[i + 1], sublist[i]
```

Number of testcase : 8

Testcase student : #1/8 1

Enter Input : 2/-2 3 1 -1 0 -3 2
[2]
[-1, 3]
[0, 2]
[-2, 2, 3]
[-2, 1, 3]
[-1, 0, 3]
[-1, 1, 2]
[-2, 0, 2, 3]
[-2, -1, 2, 3]
[-2, 0, 1, 3]
[-1, 0, 1, 2]
[-2, -1, 1, 2, 3]
[-2, -1, 0, 2, 3]
[-2, -1, 0, 1, 2, 3]

Enter Input : 2/-2 3 1 -1 0 -3 2
[2]
[-1, 3]
[0, 2]
[-2, 2, 3]
[-2, 1, 3]
[-1, 0, 3]
[-1, 1, 2]
[-2, 0, 2, 3]
[-2, -1, 2, 3]
[-2, 0, 1, 3]
[-1, 0, 1, 2]
[-2, -1, 1, 2, 3]
[-2, -1, 0, 2, 3]
[-2, -1, 0, 1, 2, 3]



name : 3
email : 82010870
name : 82010870
name : 82010870
name : 82010870

Testcase student : #2/8 2

Enter Input : 2/2 0 2 -1
[2]
[0, 2]
[-1, 1, 2]
[-1, 0, 1, 2]

Enter Input : 2/2 0 2 -1
[2]
[0, 2]
[-1, 1, 2]
[-1, 0, 1, 2]

Testcase student : #3/8 3

Enter Input : 3/-1 0 1 2
[3, 2]
[0, 1, 2]

Enter Input : 3/-1 0 1 2
[3, 2]
[0, 1, 2]

Testcase student : #4/8 4

Enter Input : 5/2 2 3 4
[3, 4]
[2, 3]

Enter Input : 5/2 2 3 4
[3, 4]
[2, 3]

Testcase student : #5/8 5

Enter Input : 4/-1 0 1 2
No Subset

Enter Input : 4/-1 0 1 2
No Subset

Testcase student : #6/8 6

Enter Input : 1/-5 -4 -3 -2 -1 0 1 2 3 4 5
[3]
[-4, 5]
[-3, 4]
[-2, 3]
[-1, 2]
[0, 1]
[-5, 1, 4]
[-5, 2, 4]
[-4, 0, 5]
[-4, 1, 4]
[-4, 2, 3]
[-3, -1, 5]
[-3, 0, 4]
[-3, 1, 3]
[-2, -1, 4]
[-2, 0, 3]
[-2, 1, 2]
[-1, 0, 2]
[-1, -1, 4, 5]
[-1, -2, 3, 5]
[-1, -1, 2, 5]
[-1, -2, 1, 5]
[-1, -1, 0, 5]
[-1, 0, 1, 4]
[-1, 0, 2, 3]
[-1, 1, 2, 4]
[-1, -1, 3, 5]
[-1, -2, 2, 5]
[-1, -1, 1, 5]
[-1, -2, 0, 5]
[-1, -1, 0, 4]
[-1, 0, 1, 3]
[-1, -2, 1, 5]
[-1, -1, 0, 4]
[-1, -2, 0, 5]
[-1, -1, 0, 3]
[-1, -2, 0, 4]
[-1, -1, 0, 2]
[-1, -2, 0, 3]
[-1, -1, 0, 1]
[-1, -2, 0, 2]
[-1, -1, 0, 1]
[-1, -2, 0, 1]

Enter Input : 1/-5 -4 -3 -2 -1 0 1 2 3 4 5
[3]
[-4, 5]
[-3, 4]
[-2, 3]
[-1, 2]
[0, 1]
[-5, 1, 4]
[-5, 2, 4]
[-4, 0, 5]
[-4, 1, 4]
[-4, 2, 3]
[-3, -1, 5]
[-3, 0, 4]
[-3, 1, 3]
[-2, -1, 4]
[-2, 0, 3]
[-2, 1, 2]
[-1, 0, 2]
[-1, -1, 4, 5]
[-1, -2, 3, 5]
[-1, -1, 2, 5]
[-1, -2, 1, 5]
[-1, -1, 0, 5]
[-1, 0, 1, 4]
[-1, 0, 2, 3]
[-1, 1, 2, 4]
[-1, -1, 3, 5]
[-1, -2, 2, 5]
[-1, -1, 1, 5]
[-1, -2, 0, 5]
[-1, -1, 0, 4]
[-1, 0, 1, 3]
[-1, -2, 1, 5]
[-1, -1, 0, 4]
[-1, -2, 0, 5]
[-1, -1, 0, 3]
[-1, -2, 0, 4]
[-1, -1, 0, 2]
[-1, -2, 0, 3]
[-1, -1, 0, 1]
[-1, -2, 0, 2]
[-1, -1, 0, 1]
[-1, -2, 0, 1]