Started on	Friday, 7 February 2025, 12:19 PM
State	Finished
Completed on	Friday, 7 February 2025, 12:41 PM
Time taken	22 mins 14 secs
Grade	**80.00** out of 100.00

Question **1**

Not answered

Mark 0.00 out of 20.00

Write a Python Program Using a recursive function to calculate the sum of a sequence
For example:

Input	Result
20	210
36	666
45	1035

Answer: (penalty regime: 0 %)

```
1
```

Question **2**

Correct

Mark 20.00 out of 20.00

Write a python program to implement linear search on the given tuple of string values.

note: As the tuple is immutable convert the list to tuple to perform search

For example:

Input	Result
5 ram john akbar seetha oviya john	Tuple: john found
4 rohini fathima jenifer nizam rakesh	Tuple: rakesh not found

Answer: (penalty regime: 0 %)

```
def linear_search(data, key):
    for item in data:
        if item == key:
            return f"Tuple: {key} found"
    return f"Tuple: {key} not found"
n = int(input())
string_list = []
for _ in range(n):
    string_list.append(input())
string_tuple = tuple(string_list)
key = input()
result = linear_search(string_tuple, key)
print(result)

```

	Input	Expected	Got	
✔	5 ram john akbar seetha oviya john	Tuple: john found	Tuple: john found	✔
✔	4 rohini fathima jenifer nizam rakesh	Tuple: rakesh not found	Tuple: rakesh not found	✔

	Input	Expected	Got	
✔	6 rose jasmine tulips marigold hibiscus lotus lilly	Tuple: lilly not found	Tuple: lilly not found	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a python program to implement quick sort on the given float array values.

For example:

Input	Result
5 6.9 8.3 2.1 1.5 6.4	left: [] right: [] left: [] right: [] left: [1.5] right: [6.4] left: [] right: [] left: [1.5, 2.1, 6.4] right: [8.3] [1.5, 2.1, 6.4, 6.9, 8.3]
6 3.1 2.4 5.6 4.3 6.2 7.8	left: [] right: [] left: [] right: [] left: [] right: [] left: [] right: [7.8] left: [4.3] right: [6.2, 7.8] left: [2.4] right: [4.3, 5.6, 6.2, 7.8] [2.4, 3.1, 4.3, 5.6, 6.2, 7.8]

Answer: (penalty regime: 0 %)

```
def quickSort(arr):
    if arr==[]:
        return arr
    pivot=arr[0:1]
    left=quickSort([x for x in arr[1:] if x<pivot[0]])
    right=quickSort([x for x in arr[1:] if x>=pivot[0]])
    print("left: ",left)
    print("right: ",right)
    return left+pivot+right

l=[float(input()) for i in range(int(input()))]
s=quickSort(l)
print(s)
```

	Input	Expected	Got	
✔	5 6.9 8.3 2.1 1.5 6.4	left: [] right: [] left: [] right: [] left: [1.5] right: [6.4] left: [] right: [] left: [1.5, 2.1, 6.4] right: [8.3] [1.5, 2.1, 6.4, 6.9, 8.3]	left: [] right: [] left: [] right: [] left: [1.5] right: [6.4] left: [] right: [] left: [1.5, 2.1, 6.4] right: [8.3] [1.5, 2.1, 6.4, 6.9, 8.3]	✔
✔	6 3.1 2.4 5.6 4.3 6.2 7.8	left: [] right: [] left: [] right: [] left: [] right: [] left: [] right: [7.8] left: [4.3] right: [6.2, 7.8] left: [2.4] right: [4.3, 5.6, 6.2, 7.8] [2.4, 3.1, 4.3, 5.6, 6.2, 7.8]	left: [] right: [] left: [] right: [] left: [] right: [] left: [] right: [7.8] left: [4.3] right: [6.2, 7.8] left: [2.4] right: [4.3, 5.6, 6.2, 7.8] [2.4, 3.1, 4.3, 5.6, 6.2, 7.8]	✔
✔	8 1.2 1.3 4.2 5.3 6.4 7.3 6.8 9.2	left: [] right: [] left: [] right: [] left: [6.8] right: [9.2] left: [] right: [6.8, 7.3, 9.2] left: [] right: [6.4, 6.8, 7.3, 9.2] left: [] right: [5.3, 6.4, 6.8, 7.3, 9.2] left: [] right: [4.2, 5.3, 6.4, 6.8, 7.3, 9.2] left: [] right: [1.3, 4.2, 5.3, 6.4, 6.8, 7.3, 9.2] [1.2, 1.3, 4.2, 5.3, 6.4, 6.8, 7.3, 9.2]	left: [] right: [] left: [] right: [] left: [6.8] right: [9.2] left: [] right: [6.8, 7.3, 9.2] left: [] right: [6.4, 6.8, 7.3, 9.2] left: [] right: [5.3, 6.4, 6.8, 7.3, 9.2] left: [] right: [4.2, 5.3, 6.4, 6.8, 7.3, 9.2] left: [] right: [1.3, 4.2, 5.3, 6.4, 6.8, 7.3, 9.2] [1.2, 1.3, 4.2, 5.3, 6.4, 6.8, 7.3, 9.2]	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write a python program to implement linear search on the given tuple of float values.

note: As the tuple is immutable convert the list to tuple to perform search

For example:

Input	Result
5 3.2 1.5 6.4 7.8 9.5 6.4	Tuple: 6.4 found
6 3.2 1.2 3.4 5.3 6.2 6.8 6.2	Tuple: 6.2 found

Answer: (penalty regime: 0 %)

```
def linear_search():
    n = int(input())
    float_list = []
    for _ in range(n):
        element = float(input())
        float_list.append(element)
    search_value = float(input())
    float_tuple = tuple(float_list)
    print(f"Tuple: {search_value} found" if search_value in float_tuple else f"Tuple: {search_value}
linear_search()
```

	Input	Expected	Got	
✔	5 3.2 1.5 6.4 7.8 9.5 6.4	Tuple: 6.4 found	Tuple: 6.4 found	✔

	Input	Expected	Got	
✔	6 3.2 1.2 3.4 5.3 6.2 6.8 6.2	Tuple: 6.2 found	Tuple: 6.2 found	✔
✔	4 2.1 3.2 6.5 4.5 3.5	Tuple: 3.5 not found	Tuple: 3.5 not found	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Correct

Mark 20.00 out of 20.00

Write a python program to implement merge sort without using recursive function on the given list of values.

For example:

Input	Result
7 33 42 9 37 8 47 5	left: [33] Right: [42] left: [9] Right: [37] left: [8] Right: [47] left: [5] Right: [] left: [33, 42] Right: [9, 37] left: [8, 47] Right: [5] left: [9, 33, 37, 42] Right: [5, 8, 47] [5, 8, 9, 33, 37, 42, 47]
6 10 3 5 61 74 92	left: [10] Right: [3] left: [5] Right: [61] left: [74] Right: [92] left: [3, 10] Right: [5, 61] left: [74, 92] Right: [] left: [3, 5, 10, 61] Right: [74, 92] [3, 5, 10, 61, 74, 92]

Answer: (penalty regime: 0 %)

```
def merge(left, right):
    result = []
    x, y = 0, 0
    for k in range(0, len(left) + len(right)):
        if x == len(left):
            result.append(right[y])
            y += 1
        elif y == len(right):
            result.append(left[x])
            x += 1
        elif right[y] < left[x]:
            result.append(right[y])
            y += 1
        else:
            result.append(left[x])
            x += 1
    return result
def mergesort(ar_list):
    length = len(ar_list)
    size = 1
    while size < length:
        size+=size
```

	Input	Expected	Got	
✔	7 33 42 9 37 8 47 5	left: [33] Right: [42] left: [9] Right: [37] left: [8] Right: [47] left: [5] Right: [] left: [33, 42] Right: [9, 37] left: [8, 47] Right: [5] left: [9, 33, 37, 42] Right: [5, 8, 47] [5, 8, 9, 33, 37, 42, 47]	left: [33] Right: [42] left: [9] Right: [37] left: [8] Right: [47] left: [5] Right: [] left: [33, 42] Right: [9, 37] left: [8, 47] Right: [5] left: [9, 33, 37, 42] Right: [5, 8, 47] [5, 8, 9, 33, 37, 42, 47]	✔
✔	6 10 3 5 61 74 92	left: [10] Right: [3] left: [5] Right: [61] left: [74] Right: [92] left: [3, 10] Right: [5, 61] left: [74, 92] Right: [] left: [3, 5, 10, 61] Right: [74, 92] [3, 5, 10, 61, 74, 92]	left: [10] Right: [3] left: [5] Right: [61] left: [74] Right: [92] left: [3, 10] Right: [5, 61] left: [74, 92] Right: [] left: [3, 5, 10, 61] Right: [74, 92] [3, 5, 10, 61, 74, 92]	✔
✔	5 4 12 6 98 3	left: [4] Right: [12] left: [6] Right: [98] left: [3] Right: [] left: [4, 12] Right: [6, 98] left: [3] Right: [] left: [4, 6, 12, 98] Right: [3] [3, 4, 6, 12, 98]	left: [4] Right: [12] left: [6] Right: [98] left: [3] Right: [] left: [4, 12] Right: [6, 98] left: [3] Right: [] left: [4, 6, 12, 98] Right: [3] [3, 4, 6, 12, 98]	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.