Started on	Wednesday, 9 April 2025, 11:30 AM
State	Finished
Completed on	Wednesday, 9 April 2025, 12:26 PM
Time taken	55 mins 45 secs
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Write a python program to implement merge sort using iterative approach on the given list of values.

For example:

Test	Input	Result
Merge_Sort(S)	6 4 2 3 1 6 5	The Original array is: [4, 2, 3, 1, 6, 5] Array after sorting is: [1, 2, 3, 4, 5, 6]
Merge_Sort(S)	5 2 6 4 3 1	The Original array is: [2, 6, 4, 3, 1] Array after sorting is: [1, 2, 3, 4, 6]

Answer: (penalty regime: 0 %)

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```
def Merge_Sort(S):
    if(len(S)>1):
        mid=len(S)//2
        left=S[:mid]
        right=S[mid:]
        Merge_Sort(left)
        Merge_Sort(right)
        i=j=k=0
        while i<len(left) and j<len(right):
            if(left[i]<right[j]):
                S[k]=left[i]
                i+=1
            else:
                S[k]=right[j]
                j+=1
            k+=1
        while i<len(left):
            S[k]=left[i]
```

	Test	Input	Expected	Got	
✔	Merge_Sort(S)	6 4 2 3 1 6 5	The Original array is: [4, 2, 3, 1, 6, 5] Array after sorting is: [1, 2, 3, 4, 5, 6]	The Original array is: [4, 2, 3, 1, 6, 5] Array after sorting is: [1, 2, 3, 4, 5, 6]	✔

	Test	Input	Expected	Got	
✔	Merge_Sort(S)	5 2 6 4 3 1	The Original array is: [2, 6, 4, 3, 1] Array after sorting is: [1, 2, 3, 4, 6]	The Original array is: [2, 6, 4, 3, 1] Array after sorting is: [1, 2, 3, 4, 6]	✔
✔	Merge_Sort(S)	4 3 5 6 1	The Original array is: [3, 5, 6, 1] Array after sorting is: [1, 3, 5, 6]	The Original array is: [3, 5, 6, 1] Array after sorting is: [1, 3, 5, 6]	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

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 %)

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```python
def Tuple(arr,num):
    length=len(arr)
    for i in range(length):
        if(arr[i]==x):
            print(f"Tuple: {x} found")
            return
    print(f"Tuple: {x} not found")
num=int(input())
arr=[]
for i in range(num):
    arr.append(input())
x=input()
Tuple(arr,num)
```

	Input	Expected	Got	
✔	5 ram john akbar seetha oviya john	Tuple: john found	Tuple: john found	✔

	Input	Expected	Got	
✔	4 rohini fathima jenifer nizam rakesh	Tuple: rakesh not found	Tuple: rakesh not found	✔
✔	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 for a search function with parameter list name and the value to be searched on the given list of int values.

For example:

Test	Input	Result
search(List, n)	5 3 4 5 6 7 4	Found
search(List, n)	6 20 34 56 87 96 51 87	Found

Answer: (penalty regime: 0 %)

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```
def search(List, n):
    for ele in List:
        if(ele==n):
            print("Found")
            return
    print ("Not Found")
List=[]
x=int(input())
for i in range(x):
    List.append(int(input()))
n=int(input())
```

	Test	Input	Expected	Got	
✔	search(List, n)	5 3 4 5 6 7 4	Found	Found	✔
✔	search(List, n)	6 20 34 56 87 96 51 87	Found	Found	✔
✔	search(List, n)	4 30 10 20 50 60	Not Found	Not Found	✔

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 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 %)

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```
def sum(num):
    if(num==1):
        return 1
    return num+sum(num-1)
num=int(input())
print(sum(num))
```

	Input	Expected	Got	
✔	20	210	210	✔
✔	36	666	666	✔
✔	45	1035	1035	✔
✔	58	1711	1711	✔
✔	65	2145	2145	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Not answered

Mark 0.00 out of 20.00

Write a python program to implement quick sort on the given float values and print the sorted list and pivot value of each iteration.

For example:

Input	Result
5 2.3 3.2 1.6 4.2 3.9	Input List [2.3, 3.2, 1.6, 4.2, 3.9] pivot: 2.3 pivot: 3.2 pivot: 4.2 Sorted List [1.6, 2.3, 3.2, 3.9, 4.2]
4 5 2 49 3	Input List [5.0, 2.0, 49.0, 3.0] pivot: 5.0 pivot: 3.0 Sorted List [2.0, 3.0, 5.0, 49.0]

Answer: (penalty regime: 0 %)

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