

Pylint initial logs :

```
***** Module hw2_debugging
hw2_debugging.py:4:0: C0325: Unnecessary parens after 'if' keyword (superfluous-parens)
hw2_debugging.py:25:0: C0303: Trailing whitespace (trailing-whitespace)
hw2_debugging.py:36:0: C0305: Trailing newlines (trailing-newlines)
hw2_debugging.py:1:0: C0114: Missing module docstring (missing-module-docstring)
hw2_debugging.py:3:0: C0116: Missing function or method docstring
(missing-function-docstring)
hw2_debugging.py:3:0: C0103: Function name "mergeSort" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:3:14: W0621: Redefining name 'arr' from outer scope (line 31)
(redefined-outer-name)
hw2_debugging.py:11:0: C0116: Missing function or method docstring
(missing-function-docstring)
hw2_debugging.py:11:14: C0103: Argument name "leftArr" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:11:23: C0103: Argument name "rightArr" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:12:4: C0103: Variable name "leftIndex" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:13:4: C0103: Variable name "rightIndex" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:14:4: C0103: Variable name "mergeArr" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:17:12: C0103: Variable name "rightIndex" doesn't conform to snake_case
naming style (invalid-name)
hw2_debugging.py:20:12: C0103: Variable name "leftIndex" doesn't conform to snake_case
naming style (invalid-name)
```

Your code has been rated at 3.75/10

Pylint final logs :

Your code has been rated at 10.00/10 (previous run: 6.25/10, +3.75)

Pyright logs :

added 1 package, and audited 2 packages in 3s

found 0 vulnerabilities
0 errors, 0 warnings, 0 informations

Autopep8 Log :

```
"""
This function sorts arrays of numbers using merge sort technique
"""
import rand

def merge_sort(arr):
    """
    Merge Sort
    """
    if len(arr) == 1:
        return arr

    half = len(arr)//2

    return recombine(merge_sort(arr[:half]), merge_sort(arr[half:]))

def recombine(left_arr, right_arr):
    """
    Merge Sort helper
    """
    left_index = 0
    right_index = 0
    merge_arr = [None] * (len(left_arr) + len(right_arr))
    while left_index < len(left_arr) and right_index < len(right_arr):
        if left_arr[left_index] < right_arr[right_index]:
            right_index += 1
            merge_arr[left_index + right_index] = left_arr[left_index]
        else:
            left_index += 1
            merge_arr[left_index + right_index] = right_arr[right_index]

    for i in range(right_index, len(right_arr)):
        merge_arr[left_index + right_index] = right_arr[i]

    for i in range(left_index, len(left_arr)):
        merge_arr[left_index + right_index] = left_arr[i]
```

```
return merge_arr
```

```
arr_in = rand.random_array([None] * 20)
```

```
arr_out = merge_sort(arr_in)
```

```
print(arr_out)
```

Github repository link : <https://github.com/NCSU-SE-Fall-2024/SE-Fall-2024-HW-2.git>