CMPSC-132: Programming and Computation II
Fall 2018

Lab #13

Due Date: 11/18/2018, 11:59PM

Instructions:

- The work in this lab must be completed alone and must be your own. Do not copy code from online sources. That is considered plagiarism.
- Use the starter code provided on this CANVAS assignment. Do not change the function names or given started code on your script
- The file name must be LAB13.py (incorrect name files will get a -1 point deduction)
- **A doctest is provided as an example of code functionality. Getting the same result as the doctest does not guarantee full credit. You are responsible for testing your code with enough data as possible.**
- Each function must return the output (Do not use print in your final submission otherwise, you will get a -1 pt deduction)
- Do not include test code outside any function in the upload. Remove all your testing code before uploading your file. Do not include the input() function in your submission.

Goal

[10 pts]. As discussed i ally splits a list in half following the divide an fundamental operation "merge" is performed. *t*(*numList*) to correctly sort a list of numbers. *mergeSort* is a recursive function **rn** the final sorted list.

- You are not allowed to use the sorted() method. Your code will not get credit if you use them
- mergeSort must be a recursive function, otherwise, your code will not get credit

Remember:

- If the list is empty or has one item, it is sorted by definition
- Merging is the process of taking two smaller **sorted** lists and combining them together into a single, sorted, new list

EXAMPLES:

```
>>> mergeSort([12,35,87,26,9,28,7])
[7, 9, 12, 26, 28, 35, 87]

>>> merge([12,26,35,87],[7,9,28])
[7, 9, 12, 26, 28, 35, 87]

>>> merge([12,35],[26,87])
[12, 26, 35, 87]
```

Deliverables:

- Submit your code in a file name LAB13.py to the Lab13 CANVAS assignment before the due date