NATIONAL UNIVERSITY
OF COMPUTER & EMERGING SCIENCES
PESHAWAR CAMPUS

Problem Set:	Assignment: A04	**Semester**:	Fall 2019
Points:	*10*		
Date Set:	*See Autograder*	**Due Date**:	*See Autograder*
Course:	CS218 - Data Structures	**Instructor**:	Dr. Nauman

1 Reversing a Linked List

This assignment is straight forward. You need to copy over all the code you wrote for the linked list earlier on in the semester.

All functions should be brought over: push, pop, insert, remove, remove_at, len etc.

You need to add just one function to the list. This function `reverse_list` should be a member method that does not take any input from the outside. It should reverse the list in place. That means that it should not create a new list, it should update the head and all reference variables for all nodes so that the head becomes the end and the original last node becomes the new head.

(Obviously, if you try to reverse a list which has no nodes, or just one node, nothing will happen.)

As an example of how this should work, the following code:

```
l = LinkedList()
l.push(1)
l.push(2)
l.push(3)

print(l)

l.reverse_list()
print(l)
```

should produce the output:

```
[1, 2, 3]
[3, 2, 1]
```

2 Submission

Use `python run.py local` to ensure all tests are passing and then submit your assignment using `python run.py remote`

If you wish to request an extension, use the autograder UI to do so. Each student gets a maximum of 3 extension days per semester.