Data Structures - Session 1 - Assignments

1. A sub list is a part of list within a given window of positions named L and R, where L is the left position in list and R is the right position. Implement a linked list and write a method to rotate sub list in clockwise direction by the number of steps (N) given as input. For Example:

Given Linked list is 2->3->4->5->6->7 and L=2, R=5 and N=2

Sublist is 3->4->5->6

Rotating the sublinklist 3->4->5->6 with N=2 the result would be 5->6->3->4. So, our new linked list is 2->5->6->3->4->7.

As an output display the modified linked list.

1. Write a method to detect loop in linked list.
2. Can you visualise the representation of a multivariate polynomial using a nested list? Provide a function to find the degree of a multivariate polynomial.

E.g. In this polynomial **3x2y4 - 5z2 + x - y + 20**,the degree is 2+4 = 6