## CS221- Data Structures Assignment 1

## [Linked List, Stack, and Applications] Deadline: 8<sup>th</sup> October 2023

**Group Size: Maximum two individuals** 

## **Problem Statement:**

In this assignment, you have to write a program to convert an infix expression to postfix and then solve it using a stack. The stack should be implemented using a **doubly circular linked list.** 

Your program should do the following things.

- 1. Take as input a mathematical expression For example: 12 + 3 \* 8 \* (3/4-2)
- 2. Solve the input expression
- 3. Your program must have separate functions for addition, subtractions and others
- 4. Display following as output after clearing the screen
  - a. The input equation.
  - b. Answer to the equation.

## Note:

The equation may be of any complexity try to write a generic code.