## Evaluation:

1. Suppose you are working at Microsoft. Bill Gates has assigned you in the Microsoft Word development team. Your first task is to make a plugin which will act as a validation checker for mathematical expressions.

   The behavior of your program will be like this:

   a. **[ { ( ) } ]** : Valid Expression
   b. **[ { ] }** : Invalid Expression.
   c. **[ {** : Invalid Expression.

## Lab Task:

2. Queue is a linear data structure which follows a particular order in which the operations are performed. The order may be FIFO (First In First Out) or LILO (Last In Last Out).

   Mainly the following four basic operations are performed in the stack:

   d. **Enqueue**: Adds an item in the queue. If the queue is full, then it is said to be an Overflow condition.
   e. **Dequeue**: Removes an item from the Queue. The oldest item in the queue will be dequeued. If the queue is empty, then it is said to be an Underflow condition.
   f. **isEmpty**: Returns true if queue is empty, else false.
   g. **size**: Returns the length.

   Implement a queue of Integer values. You can define the size of a queue in the code (#define MAX 5). (NB: Implement it using object oriented approach)

## Home Assignment:

1. Implement an cost efficient/ optimized version of queue.