CS2413: Data Structure
Fall 2021

Lab Assignment #6

- Release date: Oct 5th, 2021 (Tuesday)
- Due date: Oct 7th, 2021 (Thursday) 11:59 PM
- It should be done INDIVIDUALLY.
- Please turn in your codes through Blackboard in **one file in .cpp format**. Do **NOT** compress/zip your submission. This is to ensure faster grading.
- Please name your submission file starting with "LastName_FirstName_Lab06"
- Total: 30 pts

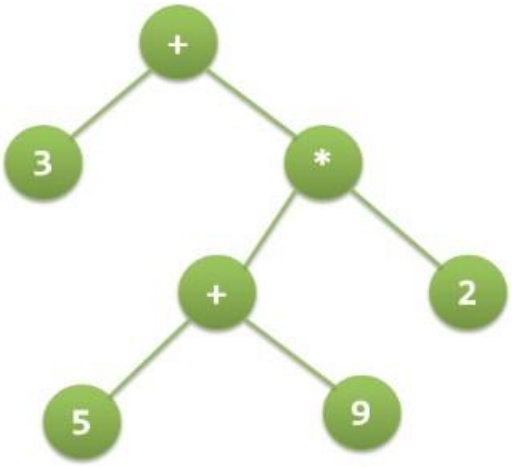
Problem:

An expression tree is a binary tree that is used to represent expressions. In an expression tree, internal nodes correspond to operators and each leaf nodes correspond to operands.

Write a C++ program that takes a fully parenthesized, arithmetic expression as input and converts it to a binary expression tree. You program should display the tree in some way and print the value associated with the root.

Example:

(3 + ((5+9) *2))



Help:

You may use the STACK STL of C++.
Stacks are a type of container adaptors with LIFO (Last-In-First-Out) type of working, where a new element is added at one end and (top) an element is removed from that end only.