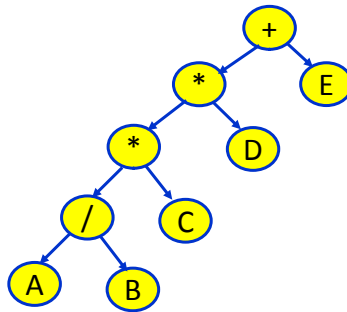


1. [Tree Traversal] Write **non-recursive** C++ programs to perform **post-order tree traversal** for the **evaluation of an expression**. (Note: It is mandatory to use non-recursive programs).

(1) Write a C++ program that constructs the following tree structure as a data structure in your computer, and then perform post-order traversal on it. Report the sequence of symbols of the tree nodes according to the order of traversal. (Note that the data carried in a tree node should contain a symbol and a floating number).



(2) Modify your program so that it can be used to evaluate the expression presented by the given tree structure. Apply {A=100.1, B=10, C=1.2, D=2.9, E=-10} to the leaf nodes and then report the result of your evaluation.

繳交資料: Combine all your following documents into a single PDF file before submission to iLMS. On top of the combined PDF file should be a **cover page** with your affiliation (e.g., the department of your major, name, registration number, etc) 系所，中英文姓名，學號等資訊.

1. All your **source codes** (C++ file).
2. The **execution results** of running your programs.

STL reference: STL 網頁: <http://www.cppreference.com/wiki/stl/start>