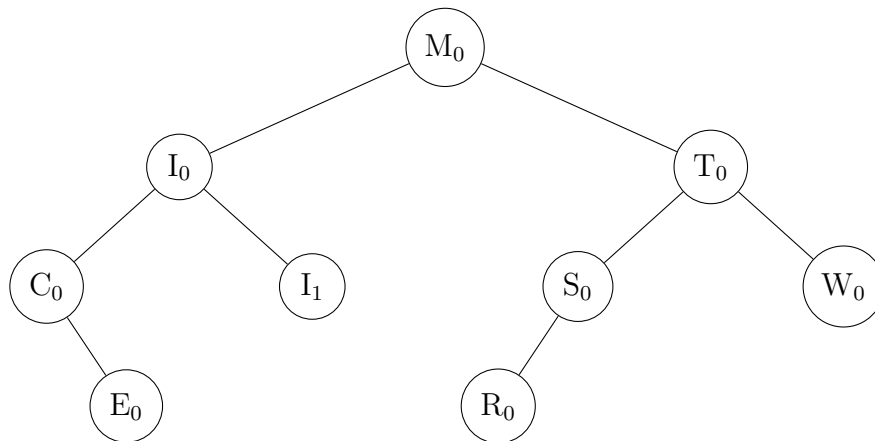


4 Trees

CS 240 introduces many tree data structures. Here is a BST on six letters of the alphabet. Insert the first three letters of your first name into the tree (if your first name is shorter than three letters, simply insert all the letters), starting with the first letter of your name. If you are inserting duplicate letters:

- (1) Find the largest index of the letter you are inserting.
- (2) Insert your letter, with an index one larger than the index you found.
- (3) When comparing to an equal value, break the tie according to the index.

For example, if you were to insert an ‘M’ into the tree below, it would be entered as M_1 and it would become the left child of T_0 . Only show the resulting tree.



Hint: For nodes with only one child, you should use “`child[missing]`” for the non-existent child to keep the binary search tree looking appropriately.