Lab Six

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1 Problem 8.1 - Crafting a Compiler

The advantages of using a BST are it works well on sorted data and can be very efficient especially because it does not have to go through evey entry and on each loop, it cuts the tree in half. The disadvantages of BST are that it is really only good if the data remains sorted. Insertions/deletions are also complicated. Another disadvantage is that it is expected on average to perform a search in O(log n), however this doesn't always hold true and can take O(n) time.

The advantages of using a hash table are they have an excellent performance and it is easier to insert and remove data using this structure as opposed to a BST. The disadvantages of a hash table are that you have to add extra code/steps for handling collisions, and also if you need the data sorted.