

Lab Six

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April 6, 2022

1 CRAFTING A COMPILER

1.1 EXERCISE 8.1

Comparing Binary Search Trees and Hash-tables for Symbol Tables

Both Binary Search Trees and Hash tables can be used to implement a symbol table. Let's compare the two possible methods by looking at each method's search/insertion time. BST's normally have a search/insertion time of $O(\log n)$. Hash tables on the otherhand, have lookup/insertion times that are relatively quicker, usually around $O(n)$ time. So comparatviley we can see that Hash tables are superior to BST's when it comes to insertion/search time. However, when it comes to implementation, a BST is more preferable.