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CS/IT 200

Lab 8

1. When performing a search, Binary Search Tree is faster than the Probe Hash Map, which means that autocomplete.py is faster than autocomplete2.py
2. I expected searching with the Binary Search Tree to be faster as it is able to find a range of words based off of a prefix without having to search the entire tree. For the Probe Hash Map the tree builds faster, but searching requires the program to go through the entire list.
3. Given the timeframe this lab was due, I assume balanced search trees were not an expected answer, but a balanced search tree, such as a red-black tree, would help keep searches of words to O(logn) time throughout the entire tree, so it would be a good substitute.