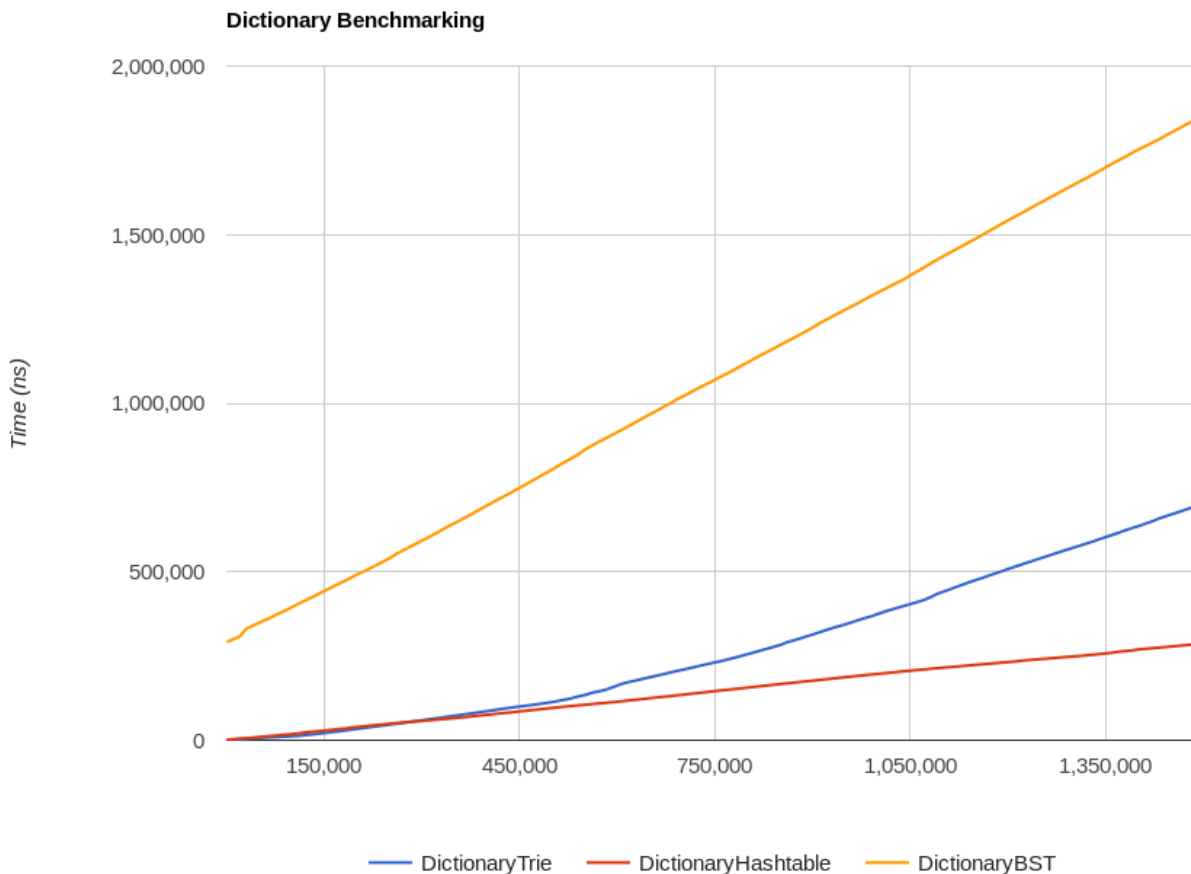


- 1) I expected to see  $O(\log N)$  because it I searched for elements similar to as in a heap, going straight to the node if it existed within its children to traverse tri.
- 2)



- 2) It works as fast as i thought it would because the graph shows the average find time to be much slower than linear speed closer to log. Where the x axis is how many words.
- 3) I used the Breadth first search method where i search every node of children checking if they are a word for autocomplete, after traversing through the tree like in my find method to find the node holding the prefix. Because of this i expect it to be slow and run  $O(N)$  despite finding the prefix node faster.