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CS 260

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Assign05 write\_up

3A) Using Hash table method takes ~0.35s to build the index.

Distinct word (n) = 31926

Number of total word (m) = 170600

Vector add location (push\_back) = O(1)

Hash table insertion = O(1)

BST inserting = O(log N)

BST inserting (only location) = O(1)

0.35s/t = O(1) / O(log n)

0.35/t = 1 / log 31926

Ans: Using BST would take around 1.58s to build the index.

3B) array/vector insertion = O(n)

0.2s/n = O(1) / O(n)

0.2/n = 1 / 31926

Ans: Using array/vector would take around 6385s to build the index.