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Number of Comparisons in Binary Search

Summary:

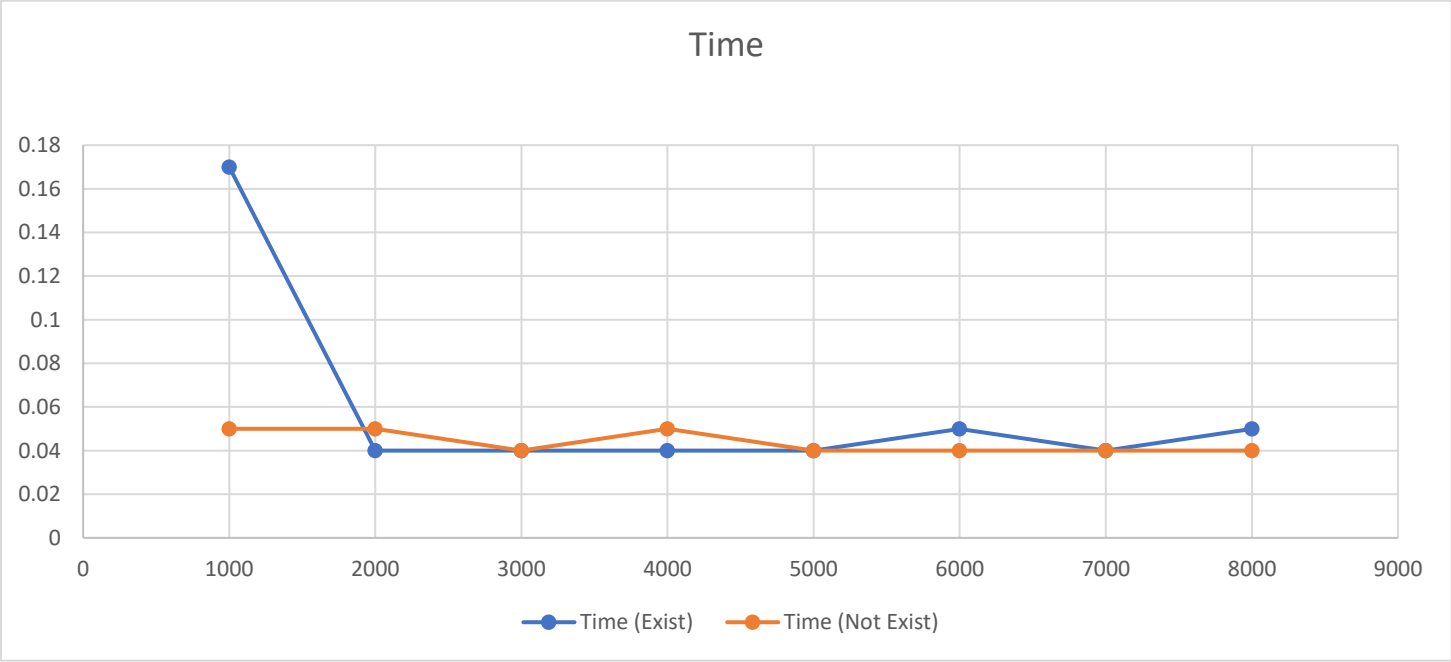
This small program measures the **average of binary search** algorithm in terms **of the number of comparisons it does to find a word.** The program calculates the time taken to search for a given word and the number of comparisons it did by using the function **testPerformance** and the given English list of words at this site: http://www-01.sil.org/linguistics/wordlists/english/.

We've just **two cases** to **search for a word** we are assure **that we'll find it**. For this case, I pick a random word (using random function of C++ to pick an index between 0 and last index) and then search for it in the data, by doing this **step 100 times** then and calculate **the average time** and **average number of comparison**s. The **second case** to makeup a **random non-existing word** and search for it and do the same.

The previous workings are **performed many times** using a **file** of **10000**, **20000**, **30000**, ..., **80000 words** and the results are plotted on the attached excel file.

The project is built using **C++, Visual Studio**.

Results:



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