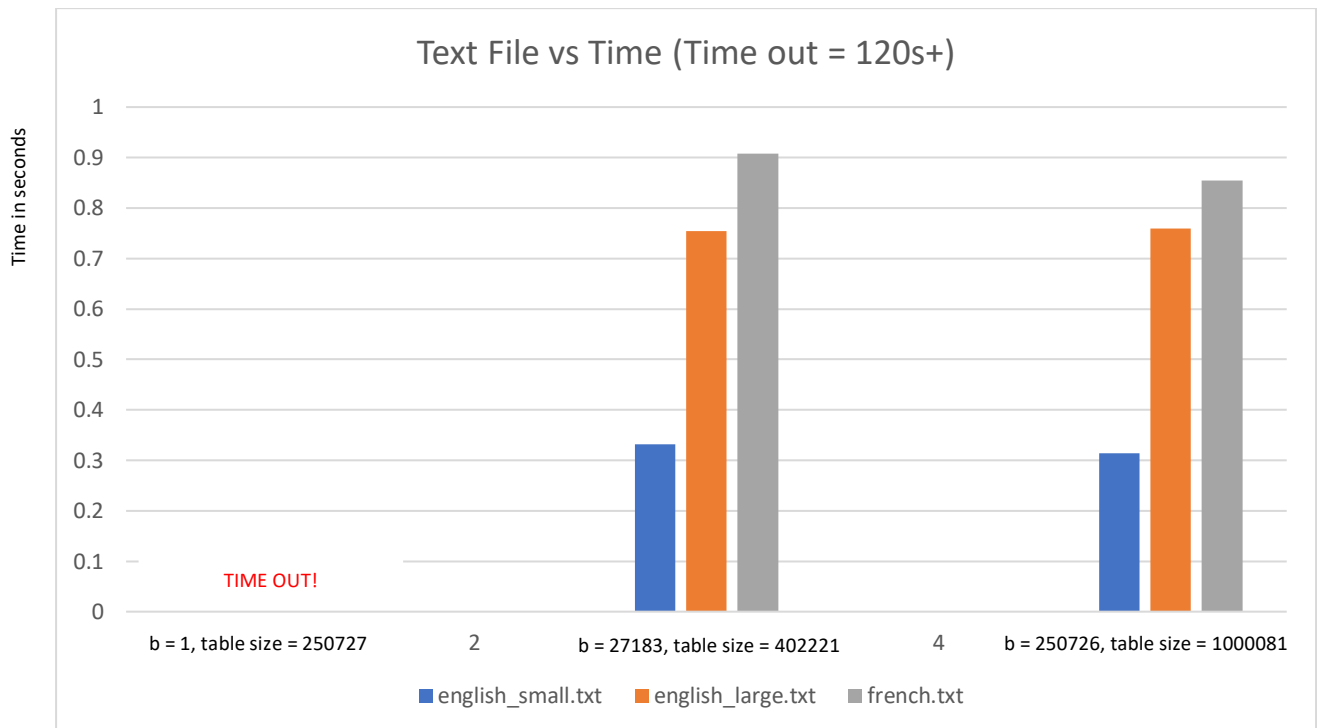


Task 2



The table above shows the time taken to store in a hash table from 3 different text files using linear probing. Each text was tested with 3 different bases and capacities for hash tables. The data shows that creating a hash table with a higher base value and capacity is a lot more time efficient than having a low base value. When the base value was 1, all the texts timed out for 2-minute timeout trials, while the trials with higher base values completed this process in less than a second. This might be because having a lower base value might mean there are more collisions for similar hash values. The number of lines in the text file is also directly proportional to the runtime.