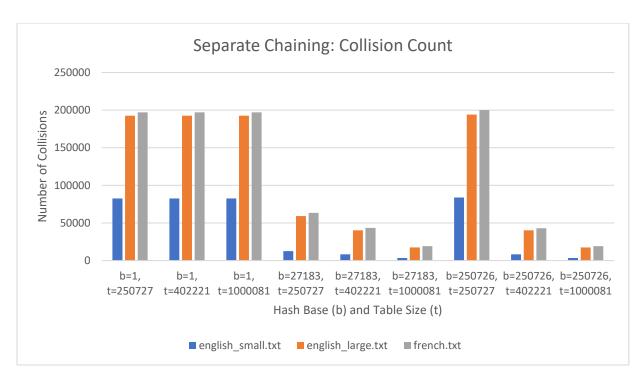
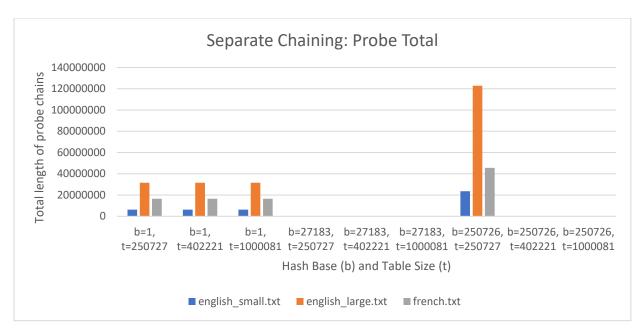


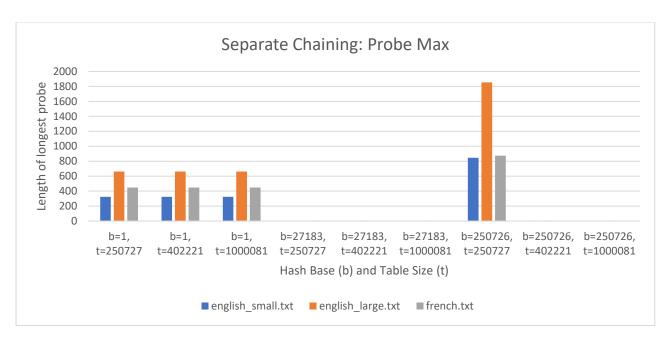
In the graph above, we can see that the time taken when using separate chaining is much lower than the time taken for linear and quadratic probing. This could possibly be explained by separate chaining eliminating the problem of primary clustering, similar to quadratic probing. It could also be explained by the usage of binary search trees as the linked data structure used for separate chaining.



In the graph above, we can see that the collision count is similar to quadratic probing, which has a higher number of collisions when compared to linear probing. In separate chaining, when there is a collision, the key/item pair is added to the slot. This would mean that as the hash table slowly beings to fill up, there will be more collisions.



In the graph above, it can be seen that the probe total is lower than quadratic and linear probing. This can be possibly be explained through the use of binary search trees, which probe through one branch of the tree at a time. Reducing the length of the probe chains and therefore reducing the total length of probe chains.



In the graph above, it can be seen that the length of the longest probe chain is lower than the linear and quadratic probing. This is because of the usage of the binary search tree, which reduces the length of probes as they go through the different branches in order to find an empty spot.