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Section 103
Final Project Summary

I found the hash table to be the best data structure to use. It had the most consistent search and insert rates for all values. The double linked list times grew much faster as more data was added to the list. This is because the link list has to traverse all the way to the end in order to add a new node. This means at the 10,000th iteration, it has to traverse 10,000 nodes. Similarly for the search, the linked list has to traverse every node in order to find the correct one. The hash table is the fastest because it organizes by the key value. This way you can skip directly to the correct bucket without iteration. Even when the number of collisions began to rise, the time remained pretty consistent. Additionally, when comparing the DLL and hash, the hash outperforms in every test.