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CS 499

SNHU

CSV Algorithms - Narrative

In this application the user is given the ability to load a comma separated values (CSV) file into three different data structures, a linked list, binary search tree, and a hash table. The user then can create a new entry, search for an entry, or delete an entry within each data structure. Each operation’s fastest and slowest time taken to complete is tracked, and available to the user from the main menu. The three data structures were originally submitted separately in CS 260 Data Structures and Algorithms course as my final project. Together, I believe they display my ability to design and evaluate computing solutions that solve a given problem using algorithmic principles, as well as demonstrate my ability to use innovative techniques, skills, and tools for the purpose of implementing computer solutions that deliver value.

Since originally being submitted, this artifact has seen many changes. Originally each data structure was accessed through its own application. There was also not a great way to see the time taken for each operation and compare the data structures. The hash table data structure, as well as the delete method for the binary search tree, was also not functional.

Completing this assignment, I solidified my knowledge of the three data structures used, and the algorithms used to interact with them. I also increased my knowledge of organizing a C++ application’s codebase by fully utilizing headers, namespace, and polymorphism.