Documentation

The coding language for this project is C++. It is programmed to track the frequency of items in a text file and allows users to search for items, print the frequency list of all the items, or print a histogram of all the items. This program uses a class called ItemTracker to summarize the logic for tracking the frequency of items. The following functions are in the ItemTracker class:

readDataFile(): reads data from an input file and updates the itemFrequency map, which is a map that stores the frequency of each item.

displayMenu(): displays a menu of options for the user to choose from, and handles user input to perform the corresponding action.

searchItem(): prompts the user to enter an item to search for, and displays its frequency if found.

printFrequencyList(): prints the frequency list of all items in the itemFrequency map.

printHistogram(): prints a histogram of all items in the itemFrequency map.

Lastly, the main() function creates an instance of the ItemTracker class, reads data from the input file using the readDataFile() function, displays the menu and handles user input using the displayMenu() function, and exits the program whenever the user chooses to exit. Altogether, this program provides a straightforward tool for analyzing the frequency of items in a text file and demonstrates the use of C++ programming language features such as user input/output, classes, and maps.

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