GroceryRecords.exe documentation @author Christian Clark @date 8/4/24

This program allows those who use it to feed in an input file and can output the frequency of any, or all items in that file. This program can also create a histogram of all the items in that input file.

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Description automatically generatedWhen the program is run with “CS210\_Project\_Three\_Input\_File.txt” inside the folder with the executable, the program will read that file into the records object we use to perform all functionality. It will write a “frequency.dat” file as well that saves the frequencies of all items that were in that initial file. If no file is included, the program will close, as there is no input to be had.

A screenshot of a computer

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This main menu asks for the user to select 1 of 3 different functions of this program. 1 will give the frequency of one of the items the user specifies. 2 will give the frequency of all items recorded. 3 will give the histogram of all items recorded. When the user presses “q” or “Q” the A screenshot of a computer

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Description automatically generatedprogram will quit.

This left screenshot is how the initial input file should be formatted to work correctly. The right screenshot shows how the frequency.dat file will be outputted when the program is run.

A screen shot of a computer program

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This Grocery Sales class is essentially a wrapper for a map that is incredibly specialized to this program. The implementation of this class, however, should be very portable, since all specifics are outside of the class and instead in the main. A computer screen shot of a program code

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We call the method to read the input file or frequency.dat file outside of the class to decouple it from the file itself. If we do that, we are able to modify the file input string outside the class and require the user to specify the input file name. The main work comes from the printFrequencyAllItems and printHistogram methods, as they are the bulk of the main functionality of the program. Everything is built around getting those two methods to work.