Item Tracker Documentation

**Purpose:**

The purpose of this project is to fulfill the request made by a *local* grocery store. The store wants a program that allows them to easily track and report on items purchased throughout the day. The Item Tracker program reads data collected in a text file, tracks the frequency that an item occurs and provides the user a menu of options to choose from.

**Requirements:**

**Menu Option One:** Prompt a user to input the item, or word, they wish to look for. Return a numeric value for the frequency of the specific word.

**Menu Option Two:** Print the list to screen with numbers that represent the frequency of all items purchased.

**Menu Option Three:** Print the same frequency information for all the items in the form of a histogram. Then print the name, followed by asterisks or another special character to represent the numeric amount.

**Menu Option Four:**

Exit the program.

**Data File Creation:** Create a data file, with the naming convention frequency.dat, for backing up your accumulated data.

**Documentation:**

The code implemented in the itemTracker.cpp file includes four libraries and namespace std:

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| --- | --- |
| **(<iostream>:** input and output stream functionality, reading and writing to console | **<map>:** associative container that stores key-value pairs, track frequency of items |
| **<fstream>:** used to read from and write to file | **<string>:** functions and classes for strings |

The itemTracker class:

* Private variable, map, to track the occurrence of items. (frequency)
* The constructor reads data from a text file and updates the freququency.dat file.
* Three public functions:
  + getFrequency(string item): Returns the frequency of an item
  + displayList(): Prints a list of items and their frequency
  + displayHistogram(): Prints a histogram of items and frequency with an asterisk

The main function:

* Creates an itemTracker object passed as tracker.
* Displays a menu with 4 options:
  + 1. Input an item to search
  + 2. Print a list of items and frequency
  + 3. Print a list of items and frequency as histogram
  + 4. Exit Program

The application executed if the user chooses a valid choice.