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**Corner Grocer Project, CS-210 Project #3**

This project is written as a console application that interacts with a user via a text message. The overall objective is to be able to read in a pre-formatted text file that lists the name of items sold in a sequential flow. Upon reading the items from file, it will tabulate the data and generate a report file automatically.

Once the tabulation is completed, the user can query the data for a single item, or see a text summary of the data, or a graphical summary of the data.

The test input file only includes a small number of entries for several types of products, however, it is anticipated that the actual quantities of some items may be much higher than others depending on the retail environment. Given this assumption, the graphical output utilizes a modulo 50 format where a “+” represents qty 50, and “\*” represents a quantity of 1. This formatting is arbitrary but implemented based on the logic that a typical console screen is not typically several hundred characters wide, and getting the value of items will be easier to estimate if you can count in groups of 50 and can then visually estimate the partials quickly. For example, 50+50+50+~25 instead of 175 asterisks wide.

The data is held in 2 separate vectors representing product name and product count. This could be implemented in multiple ways, but vectors are well understood and quickly implemented. There are no requirements to sort the data, so it’s a simple approach to iterate thru the list of products to find the data index, then using that index increment the quantity respectively, or just append the new listing to the back of the vector.

Input file data validation was considered, but it is assumed that the input data file is a computer-generated data source, so items like capitalization, spelling, and similar are not expected to vary within the same file. As such, data validation is not considered on the file inputs.

User menu is well specified in the design guidelines, so not much is left to the implementation of the menu other than some very basic formatting. This was left simple with applicable comments in the code that the implementation is a specific requirement and to review such requirements prior to editing.