CS 210 Section 10516

Corner Grocery Store

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Section 1:

This program will do the following: open the required file, output a backup of the data, organized print how many times a requested item is in the list with numbers and a histogram.

Section 2: pseudocode

* START
  + DECLARE ‘cs210\_Project\_Three\_Input\_File.txt’ as input file
  + DECLARE ‘frequency.dat’ as output file for backup
* Create input menu
  + PROMPT WITH ‘Press 1 to find an item’
  + PROMPT WITH ‘Press 2 to list items and quantities’
  + PROMPT WITH ‘Press 3 to list items and quantities with histogram’
  + PROMPT WITH ‘Press 4 to exit’
* RETURN ‘Invalid input. Valid inputs are 1 through 4’ if number greater than 4 or less than 1 is input
* FUNCTION – PROMPT1
  + PRINT ‘Selection 1’
    - Prompt ‘input item’
      * Open ‘cs210\_Project\_Three\_Input\_File.txt’
      * Search for item requested
      * Return “ITEM, INT’
        + INT – number of times item is listed
* FUNCTION – PROMPT2
  + PRINT ‘Selection 2’
    - Print all data from ‘cs210\_Project\_Three\_Input\_File.txt’ in the form ‘item, int’
* FUNCTION – PROMPT 3
  + PRINT ‘Selection 3’
    - Print all data from ‘cs210\_Project\_Three\_Input\_File.txt’
      * Instead of numbers use \* to represent each time word is listed
* FUNCTION – PROMPT 4
  + PRINT ‘Selection 4’
    - Print ‘Program ended’

Section 4: code walkthrough with screenshots for each block of the code.

Grocery-main.cpp:

A computer screen shot of a program code

AI-generated content may be incorrect.

The above block tells the code what to use with declarations, also telling the code to also use grocery.h and use the limits library for numbers. Using namespace makes it so I don’t have to put std before things like string or int. It also declares functions and variables to be used later.

A screen shot of a computer code

AI-generated content may be incorrect.

This block is setting up the building blocks for the code.

A computer screen with text

AI-generated content may be incorrect.

This block is about using the required files, telling the user if they are open or not and also prompting them to press enter to continue after running the program.

A screen shot of a computer program

AI-generated content may be incorrect.

This block is a loop that handles how the user interacts with the program.

A computer screen shot of code

AI-generated content may be incorrect.

This block defines the getInteger function.

A screen shot of a computer code

AI-generated content may be incorrect.

This handles the stars that are used to separate lines in the output.

A computer screen with green text

AI-generated content may be incorrect.

Grocery.h:

A screen shot of a computer screen

AI-generated content may be incorrect.

Tells the program what all will be used inside of the main functions of the program.

Grocery.cpp:

A screen shot of a computer program

AI-generated content may be incorrect.

This block stops the program and waits until the user presses another input.

Section 5: Testing and output examples

A lot of the problems I ran into were syntax errors and also unnecessary lines on the output. These were fixed by correcting the syntax and also commenting out the line that was causing the extra output.

A black screen with white text

AI-generated content may be incorrect.

When you run the program initially

A screenshot of a computer

AI-generated content may be incorrect.

After pressing enter.

A screenshot of a computer

AI-generated content may be incorrect.  
when searching for apples

A screen shot of a computer

AI-generated content may be incorrect.

When searching for bananas

A screenshot of a computer

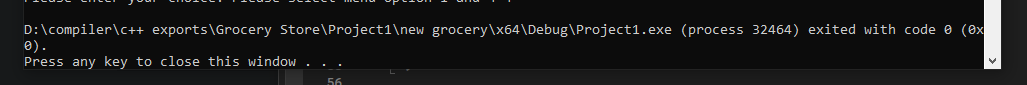
AI-generated content may be incorrect.

When pressing number 2 to List all items and quantities.

A screenshot of a computer program

AI-generated content may be incorrect.

When inputting 3 to print the list with a histogram.



When pressing 4 to exit.