CS210 - Project 3 - Documentation

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The program utilizes the GroceryFiling class to process a list of items and return a few views into the data, including querying an item's occurrences on the list, viewing all items and their associated occurrences, and viewing all items with their associated occurrences as a histogram. The functionality of the GroceryFiling class is detailed below.

**class GroceryFiling::**

**public methods:**

**GroceryFiling()**

Default constructor, sets private fields to their default error values(noted below).

**GroceryFiling(string fileIn, string fileOut)**

Usable constructor, takes the input file and output file as arguments. Sets the groceryList field internally via the ProcessList() method.

**map<string, int> ProcessList()**

Only method which accesses private fields fileIn and fileOut. Accesses file at fileIn location, transforming it into a map of item keys and quantity values. This map is copied to the output file and returned as the private field groceryList.

**void PrintMenu()**

Displays the menu of options.

**void GetOccurences()**

Prompts the user for a target string, and accesses the groceryList private field to find the match. It prints the result.

**void PrintNumerals()**

Prints out all contents of groceryList private field.

**void PrintHistogram()**

Prints keys of groceryList followed by a string of characters 'n' long, where 'n' is the key's value.

**Getters and setters for private fields:**

**void SetFileIn(string name)**

**void SetFileOut(string name)**

**void SetGroceryList(map <string, int> list)**

**string GetFileIn()**

**string GetFileOut()**

**map <string, int> GetGroceryList()**

**private fields:**

**string fileIn**

Defined in the usuble constructor as first argument. Default value set as string "Error: no in file".

**string fileOut**

Defined in the usuble constructor as second argument. Default value set as string "Error: no out file".

**map<string, int> groceryList**

Defined in the usable constructor via the ProcessList() method.