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CS - 210 - Programming Languages

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The Corner Grocer program was designed to help a grocery store track how frequently items are purchased throughout the day. The program reads a list of grocery items from an input file and calculates how many times each item appears. It allows users to interact with the data through a menu-driven interface and generates an output file for record-keeping.

How It Works:

When the program runs, it displays a menu with four options:

1. Search for an item

Prompts the user to enter an item name and returns how many times it appears in the data.

2. Display all items and frequencies

Shows every unique item and the number of times it was purchased.

3. Display histogram

Presents the frequency of each item visually using asterisks.

4. Exit the program

Ends the session.

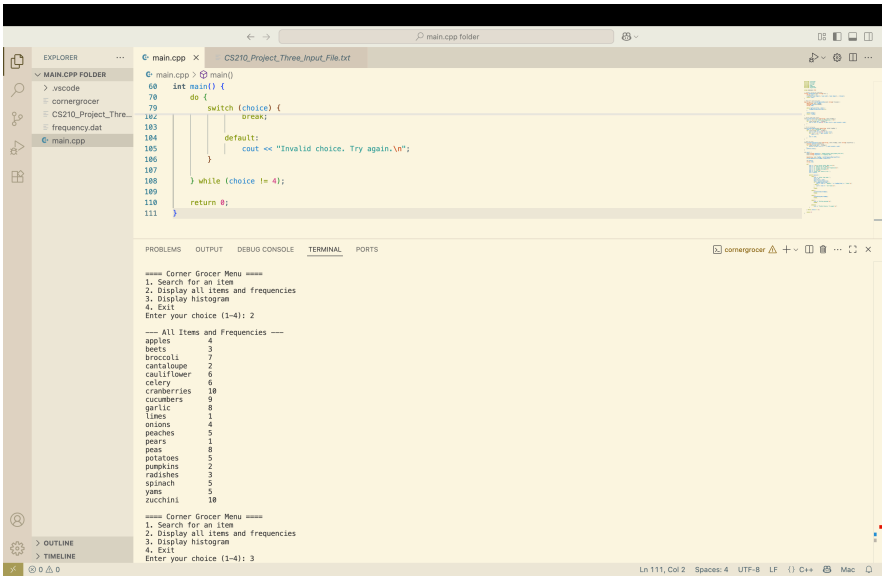
The program uses a map<string, int> to store and manage item counts. It reads the input file CS210_Project_Three_Input_File.txt and writes the results to frequency.dat. To ensure user input is matched correctly, all items are converted to lowercase before being counted or searched.

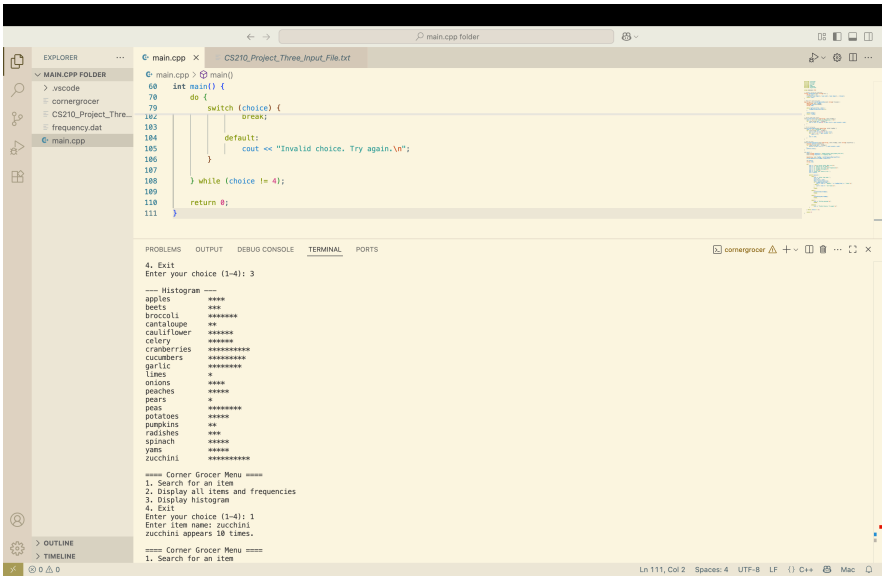
Code Features:

- Use of map<string, int> for efficient frequency tracking
- File input and output (ifstream and ofstream)
- Custom functions for search, printing, and histogram
- Case-insensitive input matching using transform() and tolower()

- Organized and readable structure with comments for clarity.

The two screenshots show a histogram, frequency list, and even a search result.





To conclude, this program meets all functionality requirements and demonstrates the use of C++ features to solve a real-world tracking problem.