**CS-210-R3216 Programming Languages: Module 7 Project 3**

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**Documentation of ItemTracker Program**

**Introduction:**

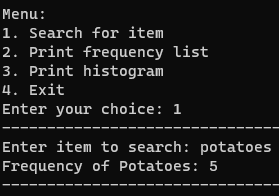
The ItemTracker program is designed to assist the Corner Grocer in analyzing the frequency of items purchased throughout the day. The program allows users to perform various tasks such as searching for a specific item, printing a list of item frequencies, printing a histogram representation of item frequencies, and backing up data to a file.

**Design and Functionality:**

A screenshot of a computer program

Description automatically generated

* **Menu Interface:** Upon execution, the program displays a menu interface with four options: Search for item, Print frequency list, Print histogram, and Exit. Users can enter the corresponding number or keyword for each option to perform the desired task.

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* **Search for Item:** When users select the "Search for item" option (option 1), they are prompted to enter the item they wish to search for. The program then searches the data for the specified item and displays its frequency. If the user enters an invalid input, they are prompted again until a valid input is provided.

**A screenshot of a computer program

Description automatically generated**

* **Print Frequency List:** Choosing the "Print frequency list" option (option 2) prints a list of all items along with their respective frequencies.

**A screenshot of a computer program

Description automatically generated**

* **Print Histogram:** Selecting the "Print histogram" option (option 3) generates a histogram representation of item frequencies. Each item is listed along with a series of asterisks corresponding to its frequency, providing a visual representation of the data.

**A screen shot of a computer program

Description automatically generated**

* **Backup Data:** The program automatically backs up the data to a file named "frequency.dat" when the user selects the "Exit" option (option 4). This ensures that the data is preserved for future reference or analysis.

**Conclusion:**

The ItemTracker program offers a user-friendly interface for analyzing item frequencies at the Corner Grocer. Its functionality enables efficient data retrieval, visualization, and backup, empowering users to make informed decisions about product placement and inventory management.