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CHADA TECH

SNHU CS210 – Programming Languages

A logo of a grocery bag

Description automatically generated

item inventory system

February 25, 2024

**PROGRAM OUTLINE**

# Create a Data File for Backup

1. Open original file
   1. (Error if unable to open)
2. Declare a map to hold data from original file
3. Use a while-loop to read from file and add to map
4. Close the original file
5. Create a new file
   1. (Error if unable to open)
6. Write content of the map to new file
7. Close the new file
8. Let user know new file created named frequency.dat

A black screen with white text

Description automatically generated

The first step in the program is to open the inventory list and store its data to a map, counting each item as we go and storing the quantity. We can then create a new file named “frequency.dat” to hold the data.

# Display a Menu to the User

Show Menu:

A screen shot of a computer

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The next step is to introduce the program and show a menu of options to the User.

# [Option 1]

1. Prompt for item input
2. Open backup file
   * (Error if unable to open)
3. Read the file/search for the input
4. If product in file == input, print quantity
5. Otherwise, print an error
6. Close the file

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Description automatically generated

The first option will accept an input from the User, then open and search the backup file for the item name. If the item is found, the quantity will display. If not, an error is shown.

# [Option 2]

1. Open backup file
   1. Error if unable to open
2. Read backup file
3. Print name + quantity using while loop
4. Close the backup file

A screenshot of a computer

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Option 2 will display the data from the backup file to the User (Item name and quantity)

# [Option 3]

1. Open backup file
   1. Error if unable to open
2. Read backup file.
3. Print name + quantity using while loop
   1. Utilize a PrintAsterisk() method which will print a number of asterisks based on item quantity
4. Close the backup file

A screen shot of a computer

Description automatically generated

This option will read the backup file again, but will use a PrintAsterisk() method to output the quantity using a number of asterisks instead of printing the number. I’ve used ProductWidth() and setfill to align each line in the center, displaying the histogram better.

# [Option 4] Exit the Program **This option Exits the program.**