**START**

Set “MGSI” as the default text for barcode testing.

**main()**

**begin**

Prompt the user to choose between: appending/ creating inventory, displaying inventory, deleting inventory, searching inventory, calculating stocks or using the income calculator.

If user has inputted a string instead of one character, display “error” onto the screen.

Call the functions **Append()**, **Display()**, **Delete()**, **Search()**, **Stocks()** or **IncomeCalculator()** based on the user’s input.

If the user has inputted some other character, display “error” onto the screen.

Prompt the user to continue the program.

If user has inputted a string instead of one character, exit the program immediately.

If the user enters “y” or “Y”, clear the screen and loop back to the start of **main()**.

**end**

**Locate()**

**begin**

**Check if file “database.dat” exists.**

**If file does not exist, display “There is no file.” onto the screen.**

**Otherwise, display “Successfully located file.” onto the screen.**

**end**

**Append()**

**begin**

**Prompt user to enter an 8-digit barcode starting with the 4 characters “MGSI”.**

**If the inputted string is not 8 characters long or the 4 characters are not present, display “Wrong input.” and terminate the program.**

**Prompt the user to enter the product name and its price.**

**If the price is inputted as a character or has a negative value, display “Wrong input.” and terminate the program.**

**Store the 3 inputs in a file called “database.dat”.**

**Call the function DataStore() with price as function parameter.**

**end**

**Display()**

**begin**

**If “database.dat” does not exist, display “There is no file.” on the screen.**

**Otherwise, store the information in “database.dat” in a buffer display.output.**

**Recall this information and free the buffer.**

**end**

**Delete()**

**begin**

**Delete the files “database.dat” and “price.dat”.**

**Display “Successfully deleted file(s).” onto the screen.**

**end**

**Search()**

**begin**

**If “database.dat” does not exist, display “There is no file.” on the screen.**

**Otherwise, prompt user to enter an 8-digit barcode starting with the 4 characters “MGSI”.**

**If the inputted string is not 8 characters long or the 4 characters are not present, display “Wrong input.” and terminate the program.**

**Search each line for any instance of the barcode by comparing the strings.**

**If any record is found, display “Found record.” and that record.**

**Otherwise, display “Not found.”**

**end**

**DataStore(price)**

**begin**

**If “price.dat” does not exist, set the price counter to 1.**

**Store “price” and the inventory counter in “price.dat”.**

**Otherwise, recall previous price and add it to the current price.**

**Recall the previous counter information and increment it.**

**Overwrite these values in “price.dat”.**

**end**

**Stocks()**

**begin**

**Prompt the user to enter current budget.**

**If the input is character(s), display “Wrong input.” and terminate the program.**

**Prompt the user to enter total income.**

**If the input is character(s), display “Wrong input.” and terminate the program.**

**Recall the price and the inventory counter data from “price.dat”.**

**Display number of items in inventory and the total inventory price.**

**Calculate and display the Total Budget by adding the budget and the total inventory price.**

**Calculate and display the Old Budget by subtracting the income from the budget.**

**end**

**IncomeCalculator()**

**begin**

**Prompt the user to enter the items sold.**

**If input is character(s), display “Wrong input.” and terminate the program.**

**Otherwise, prompt the user to sequentially enter the prices for all items.**

**Add all the prices and display the value on the screen.**

**end**

**STOP**