

Arrays, Functions, and File I/O (Checkout Lab)

CS 161

Courtesy of Dr. David Hutchens and Beth Katz

Goals

- to use file to get information
- to use array of grocery objects to hold and access information
- to write functions and use parameters effectively

Overview

For this assignment, you will write a program to simulate a grocery store checkout system (inventory system). Information about store items (item code, quantity, name, cost per unit, and whether the item is sold by pounds or quantity) will be stored in a file. Your program will print a report of the all items in inventory and the total value of the inventory.

Checkout Description

You are to open the file and read the contents to obtain the information on items for sale. The file will contain one line per item. The line will contain five values. The values are 1: item number (an integer), 2: item name (a string), 3: item price (a double), and 4: item type (a string, either **pounds** or **each**) and 5: the quantity in inventory. You may assume the item information file is properly formatted.

There will be no more than 1000 items in the file.

The **item number** can be any positive integer. The **item name** is a string of non-space characters. The **item price** is a positive real number. The **item type** is a string. It is either **pounds**, meaning the item is sold by the pound, or it is **each**, meaning the item is sold by units. Note that the lines in the file are not sorted in any way.

You should read the five values for each item into an array of grocery objects to hold the item data in memory. To read the item data file you will need to open the file.

Download the item file name (on my web site). Each line will contain an item number and a quantity or weight as appropriate for the item. You should write out a line of information for the purchase after reading each input line.

After all input has been processed, write out a line with the total purchase price.

Sample File (see rwwfile.txt)

Sample Output

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gallonMilk 2 @ 2.99 each = $5.98
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Total = \$8.12