problem: stock control filebase

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brief

The purpose of this problem is to build a prototype system using files to store persistent data. The data represents simple product descriptions and their stock levels.

Java outcomes (see other notes for explanation)

- read/write to streams & files
- string methods

stage 1

- use a text editor to produce a (text) file (called "prod-data.txt") containing data about products for sale at a shop. Include a product code, a description and a price. Separate entries (and fields within each entry) using some appropriate character(s) (ie: characters which you do not expect to be part of a product code or description;
- write a java program to read the prod-data file & display its contents in some text output components.

stage 2

- modify the file read mechanism so it builds a hash structure (using product code as a key);
- refactor & re-use some of your code from the previous problem to implement searches on product codes and partial product descriptions;

stage 3

- use a text editor to write a "stock-data.txt" file which contains stock levels for each product code;
- extend your program so it reads the stock data (use a 2nd hash class for this);
- add stock level data to the results of your searches from the stage above;

stage 4

- add some kind of "buy" mechanism which reduces the stock level maintained in the hash map/table and updates a running account of the total value of goods sold;

stage 5

- add a facility to set new stock levels (implying that a new delivery of stock has arrived);

stage 6

- add some mechanism to rewrite the stock-data file so changing stock levels are saved. This should be done only when the user chooses this activity (ie: not every time the stock changes);

stage 7

- modify your work so the program uses a separate text file (“prices.txt”) is used to store the cost of each product.