

COP3804 Assignment 1

Purpose of Assignment

To help you to:

- (a) Understand the concepts cohesion, and how it can be used to decompose problem definition into separate components (classes).
- (b) Understand coupling and how it is used to assemble the components (classes) into complete programs.

The establishment called ABC Enterprise requires a Java program to keep a database of the inventory of the products that it sells. Each product is identified by its manufacturer, its name, the quantity, and unit price. Note: a manufacturer is characterized by its company's name and address

In addition to storing the information, the program should be able to make updates to the quantity and/or the price as time goes on. That is, when a sale is made, the quantity of that product must be reduced; similarly, when a product is re-ordered, the quantity of that product must be increased. Also, when there is a change in the price of a product, the price must be changed. The change must be interpreted as a replacement of the value. New products may be added to the inventory at any time; also, a product may be removed from the inventory at any time. Maintain a separate list the products that have been deleted from the database of active products.

Your program must be able to produce three kinds of reports, namely:

- (a) Locate a single product and display its name, price and quantity alone.
- (b) The inventory report should be structured as follows:

Product	Purchase Date	Quantity	Price	Manufacturer	State
Telephone	01/20/2013	10	254.99	Motorola	FL
Computer	01/06/2013	15	756.99	CBS	NY
:	:	:	:	:	:
:	:	:	:	:	:

- (c) A list of the deleted products should be structured as follows:

Product	Date	Manufacturer
Paper reams	01/20/2013	Morgan Jewelry
:	:	:

In your design, convince yourself that you need a minimum of four classes, not including the test class – Product, Manufacturer, Address, and Database. You may use the class called GetData.java, **Listing 1.6 (in the textbook)**, for inputting the data. Use a scrollable panes to display your output.