CIS 225

MidTerm practice - Cash for Metals & Gems

http://goldprice.org/Calculators/Gold-Price-Calculators.html

http://www.javaprogrammingforums.com/whats-wrong-my-code/4624-program-compiled-ran-required-failed-project-why.html

Given the economic conditions, businesses have sprouted offering money for unwanted jewelry, antiques and collectibles to people in need of cash. The service makes exchanging goods for cash easy and discrete.

You have been tasked by "Cash for Metals" to write a program which will help customers get an estimate of the amount they will be paid for their precious metals & gems. Customers enter data on the company web site, which will create a proposal for purchasing of the metals from the customer. Below are the program requirements:

Read the entire assignment before proceeding to coding – be sure to follow the implementation notes!

1. The program will begin asking for information about the customer and the metals they have submitted as follows.

     a. Customer's last & first name

     b. Weight of Gold (gram)

     c. Weight of Silver (gram)

     d. Karat of gemstone (diamond, sapphire, emerald, ruby)

2. Processing of Data

     a. Create a unique 8 digit number to identify the customer.

     b. The following conversion rates will be used for calculation of the amount of money offered for each metal the customer has submitted and a total amount:

          Gold: $52.00/gram

          Silver: $1.10/gram

          Diamond: $200.00/.5 Karat

          Sapphire: $100.00/.5 Karat

          Emerald: $150.00/.5 Karat

          Ruby: $1750.00/.5 Karat

     c. Asses a 10% handling fee

3. Display the data:

     a. Display the customer's ID

b. Display the customer's name

        c. Display the amount of money to be offered for each metal

        d. Display the handling fee

        e. Display the net amount of money to be offered to the customer

4. Storing the data

        a. All transactions must be stored for the day.

5. Display a summary of the user's input for all customers as follows:

        a. Total weight for each metal from all customers

        b. Total dollar amount of money to be offered for each metal for all customers

        c. Grand total for all metals for all customers

5. Reasonable data validation must be implemented for all values entered by the user. Processing should not continue until valid data has been entered

6. You must demonstrate the use of all of the following:

        a. ArrayList

        b. HashMap

        c. Iterator

        d. Enhanced for loop