

- 2 lines.

Data Structures (CIS 2410)
M. Lowenthal

ASSIGNMENT #1- REVIEW

The "ABC Hardware Company" has hired you to write a program for its Accounts Receivable department (A/R are accounts that owe money to the company because they have purchased items and have not yet paid for them)

There are two types of input data

1) A master file in ascending order by customer number (customer numbers are 4 digits long). The file also contains a 20 character customer name and a balance due.)

2) A transaction file that contains records of each transaction. This file is also in ascending order by customer number.

There should be more than one transaction record per master record. Each related group of data in a file is called a record. A record should be stored in a structure.

Customer no Customer payment amt. (in dollar amt)
Each record starts with a character, "O" for order or "P" for payment. Each record also contains the four-digit customer number, a four-digit transaction number, and up to three more values:

If the code is "O", the record contains the item ordered (20 characters), the quantity ordered (an integer) plus the cost of the item. (You must multiply to get the total cost)

If the code is "P", the record contains the amount of the payment.

You are to read in records one at a time from the two files and use the transaction file records to update the master file. Process all transaction records for each master record before going on to the next master record. If the transaction record contains an "O" in column 1, calculate the order amount and add it to the balance due. If the record contains a "P" in column 1, subtract the payment from the balance due. Keep a running total of the A/R Balance of ABC Company (That is the sum of the balances due for each customer).

Your program should....

- Check for errors such as duplicate master records or records in the transaction file that do not appear in the master file.

After processing a master record and all its transactions the program should prepare an invoice for each customer which lists the customer name, number, previous balance (balance before transactions were performed), all transactions, and the final balance due (balance after transactions are performed).

The output should look something like this...

CUSTOMER NAME	CUSTOMER NUMBER	PREVIOUS BALANCE	\$ XXX.XX
TRANSACTION #	ITEM ORDERED	\$ ORDER AMOUNT	
TRANSACTION #	ITEM ORDERED	\$ ORDER AMOUNT	
TRANSACTION #	PAYMENT	\$ PAYMENT AMOUNT	
TRANSACTION #	ITEM ORDERED	\$ ORDER AMOUNT	
	BALANCE DUE	\$ XXX.XX	

Don't forget, payments reduce the balance and orders increase it. You are to create your own data using at least 7 customers with an average of 5 transactions each.