

## Group Project Phase III

### Updating the Master file

**25 points; due May 9 at 5pm (Friday)**

#### Problem Description

You are given a master file **MASTER.DAT** that stores the total amount of account receivable for each customer. To keep the amount up-to-date, you are required to write an update program to incorporate the transaction amounts in the transaction file **PHASE2.DAT** with the amounts in the master file. That is, you need to add the amounts in the transaction file to the amount in the master file. Note the amount you are adding is the transaction amount. That is, you need to compute the transaction amount first before you can add the amount to the master file. And, the same customer may have more than one transaction. Transaction amounts are computed based on the following arithmetic operations.

- (1) `sales amount = unit price * quantity`
- (2) `sales tax = sales amount * 5.5%`
- (3) `transaction amount = sales amount + sales tax`

Your program will generate the following files. Note these files are simply data files, NOT report files.

1. New master file **NEWMASTER.DAT** incorporated the amounts in the transaction file.
2. Error log file **ERRORLOG.DAT** containing abnormal records that couldn't be updated.

#### Input/Output File Layout

| Master files (new and old), record size 34 |      |              |         |
|--|------|--------------|---------|
| Field                                      | Size | Type         | Decimal |
| Customer Number                            | 5    | Alphanumeric | -       |
| Customer Name                              | 20   | Alphanumeric | -       |
| Total Amount                               | 9    | Numeric      | 2       |

| Transaction file and Error Log, record size 53 |      |              |         |
|--|------|--------------|---------|
| Field  | Size | Type         | Decimal |
| Customer Number                                | 5    | Alphanumeric | -       |
| Customer Name                                  | 20   | Alphanumeric | -       |
| Item Number                                    | 4    | Alphanumeric | -       |
| Item Description                               | 15   | Alphanumeric | -       |
| Unit Price                                     | 6    | Numeric      | 2       |
| Quantity                                       | 3    | Numeric      | 0       |

#### Requirement and Grading

1. You must download the transaction file **PhaseII.dat** from D2L, and sort it with Customer Number in ascending order before you can run the update program.
2. You must follow the programming guidelines and rules on D2L.
3. Each group member must do a fair share of the programming. Identify the work done by each group member in the comment block. **-5 points if this is not done.**
4. Submit \*.cbl, **NEWMASTER.dat** and **ERRORLOG.dat** to the dropbox PHASE III by **May 9, at 5pm.**
5. **You will get 0 points if**
  - Your program doesn't compile and/or doesn't run.
  - The updated amounts in **NEWMASTER.dat** are incorrect, or **ERRORLOG.dat** is incorrect
  - You failed to submit any of the following files
    - ✓ \*.cbl
    - ✓ **NEWMASTER.dat**
    - ✓ **ERRORLOG.dat**
  - You submitted the files after the due date.