**CHAPTER 7**

1. Write the SQL code that will create the table structure for a table named EMP\_1. This table is a subset of the EMPLOYEE table. The basic EMP\_1 table structure is summarized in the following table. (Note that the JOB\_CODE is the FK to JOB.)

|  |  |
| --- | --- |
| **ATTRIBUTE (FIELD) NAME** | **DATA DECLARATION** |
| EMP\_NUM | CHAR(3) |
| EMP\_LNAME | VARCHAR(15) |
| EMP\_FNAME | VARCHAR(15) |
| EMP\_INITIAL | CHAR(1) |
| EMP\_HIREDATE | DATE |
| JOB\_CODE | CHAR(3) |

CREATE TABLE EMP\_1 (

EMP\_NUM int, -- Both a primary and foreign key

EMP\_LNAME varchar(15) NOT NULL,

EMP\_FNAME varchar(30) NOT NULL,

EMP\_INITIAL varchar(1) NOT NULL,

EMP\_FNAME varchar(30) NOT NULL,

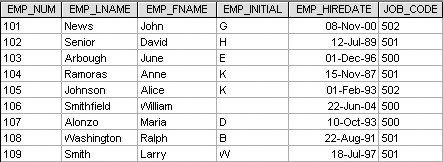
EMP\_HIREDATE date NOT NULL,

PRIMARY KEY (EMP\_NUM),

);

1. Having created the table structure in Problem 1, write the SQL code to enter the first two rows for the table shown in Figure P7.2.

FIGURE P7.2 THE CONTENTS OF THE EMP\_1 TABLE



INSERT INTO EMP\_1

(EMP\_NUM, EMP\_LNAME, EMP\_FNAME, EMP\_INITIAL,EMP\_HIREDATE,JOB\_CODE)

VALUES (101, 'News', 'John', '23-Mar-16', 'G',08-Nov-00,502),

(102, 'Senior', 'John', 'David', 'H',12-Jul-89,502),);

1. Assuming that the data shown in the EMP\_1 table have been entered, write the SQL code that will list all attributes for a job code of 502.

SELECT

EMP\_LNAME,EMP\_FNAME,EMP\_INITIAL,EMP\_HIREDATE,JOB\_CODE, COUNT(\*)

FROM

EMP\_1

WHERE

JOB\_CODE==502;

1. Write the SQL code that will save the changes made to the EMP\_1 table.

SAVE EMP\_1

1. Write the SQL code to change the job code to 501 for the person whose employee number (EMP\_NUM) is 107. After you have completed the task, examine the results and then reset the job code to its original value.

UPDATE EMP\_1

SET

JOB\_CODE = 501

WHERE

EMP\_NUM = 107;

SELECT EMP\_NUM, JOB\_CODE, EMP\_HIREDATE

FROM EMP\_1

#RESET

1. Write the SQL code to delete the row for William Smithfield, who was hired on June 22, 2004, and whose job code is 500. (*Hint:* Use logical operators to include all of the information given in this problem. Remember, if you are using MySQL, you will have to first disable “safe mode.”)

DELETE FROM EMP\_1

WHERE EMP\_HIREDATE=”08-Nov-00” AND JOB\_CODE=500 AND EMP\_FNAME=”William” AND EMP\_LNAME=”Smithfield”;

**CHAPTER 8**

Use the database tables in Figure P8.1 as the basis for Problems 1–18.

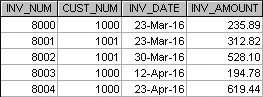
FIGURE P8.1 CH08\_SIMPLECO DATABASE TABLES

**Table name: CUSTOMER**

**Database name: Ch08\_SimpleCo**

**Table name: INVOICE**

**Table name: CUSTOMER\_2**



1. Create the tables. (Use the MS Access example shown in Figure P8.1 to see what table names and attributes to use.)

CREATE TABLE CUSTOMER (

CUST\_NUM int, -- Both a primary and foreign key

CUST\_LNAME varchar(30) NOT NULL,

CUST\_FNAME varchar(30) NOT NULL,

CUST\_BALANCE int NOT NULL,

PRIMARY KEY (CUST\_NUM),

FOREIGN KEY (CUST\_LNAME, CUST\_FNAME,CUST\_NUM)

REFERENCES users (id)

ON DELETE CASCADE

);

CREATE TABLE INVOICE (

INV\_NUM int, -- Both a primary and foreign key

CUST\_NUM int(30) NOT NULL,

INV\_DATE varchar(30) NOT NULL,

INV\_AMOUNT int NOT NULL,

PRIMARY KEY (INV\_NUM),

);

CREATE TABLE CUSTOMER\_2 (

CUST\_NUM int, -- Both a primary and foreign key

CUST\_LNAME varchar(30) NOT NULL,

CUST\_FNAME varchar(30) NOT NULL,

PRIMARY KEY (CUST\_NUM),);

1. Insert the data into the tables you created in Problem 1.

INSERT INTO CUSTOMER

(CUST\_NUM, CUST\_LNAME, CUST\_FNAME, CUST\_BALANCE)

VALUES (1000, 'Smith', 'Jearne', 1050.11),

(1001, 'Ontega', 'Juan',840.92),

INSERT INTO CUSTOMER\_2

(CUST\_NUM, CUST\_LNAME, CUST\_FNAME)

VALUES (2000, 'McPherson', 'Anne'),

(2001, 'Ontega', 'Juan'),

(2002, 'Kowalski', 'Jan'),

(2003, 'Chen', 'George');

INSERT INTO INVOICE

(INV\_NUM, CUST\_NUM, INV\_DATE, INV\_AMOUNT)

VALUES (8000,1000, '23-Mar-16',235.89),

(8001, 1001, '23-Mar-16', 312.82),

(8002, 1001, '30-Mar-16', 528.10),

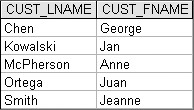
(8003, 1000, '12-Apr-26', 194.78),

(8004, 1000, '23-Apr-16', 619.44);

1. Write the query that will generate a combined list of customers from the tables CUSTOMER and CUSTOMER\_2 that do not include the duplicate customer records. Only the customer named Juan Ortega shows up in both customer tables.

(Figure P8.3)

FIGURE P8.3 COMBINED LIST OF CUSTOMERS WITHOUT DUPLICATES



SELECT

CUST\_LNAME,CUST\_FNAME, COUNT(\*)

FROM

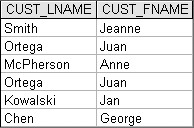
CUSTOMER\_2

WHERE

CUST\_LNAME==”Orthega” AND CUST\_FNAME==”Juan”

1. Write the query that will generate a combined list of customers to include the duplicate customer records. (Figure P8.4)

FIGURE P8.4 COMBINED LIST OF CUSTOMERS WITH DUPLICATES



SELECT

CUST\_LNAME,CUST\_FNAME, COUNT(\*)

FROM

users

GROUP BY

name, email

HAVING

COUNT(\*) > 0

5.Write the query that will show only the duplicate customer records. (Figure P8.5)

FIGURE P8.5 DUPLICATE CUSTOMER RECORD



SELECT

CUST\_LNAME, CUST\_FNAME, COUNT(\*)

FROM

CUSTOMER\_2

GROUP BY

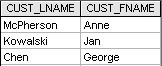
CUST\_LNAME

HAVING

COUNT(\*) > 1

6.Write the query that will generate only the records that are unique to the CUSTOMER\_2 table. (Figure P8.6)

FIGURE P8.6 CUSTOMERS UNIQUE TO THE CUSTOMER\_2 TABLE



SELECT

CUST\_LNAME, CUST\_FNAME COUNT(\*)

FROM

CUSTOMER\_2

GROUP BY

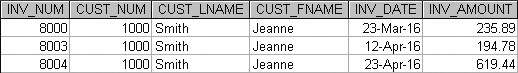
CUST\_LANAME

HAVING

COUNT(\*) > 1

7.Write the query to show the invoice number, customer number, customer name, invoice date, and invoice amount for all customers in the CUSTOMER table with a balance of $1,000 or more. (Figure P8.7)

FIGURE P8.7 INVOICES OF CUSTOMERS WITH A BALANCE OVER $1000



SELECT

INV\_NUM, CUST\_NUM,CUST\_FNAME,INV\_DATE,INV\_AMOUNT COUNT(\*)

FROM

CUSTOMER\_2

GROUP BY

INV\_NUM,CUST\_NUM,INV\_DATE

HAVING

COUNT(\*) > 1