Database Programming with SQL

12-3: DEFAULT Values, MERGE, and Multi-Table Inserts

Practice Activities

Objectives

* Understand when to specify a DEFAULT value
* Construct and execute a MERGE statement
* Construct and execute DML statements using SUBQUERIES
* Construct and execute multi-table inserts

Try It / Solve It

1. When would you want a DEFAULT value?

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2. Currently, the Global Foods F\_PROMOTIONAL\_MENUS table START\_DATE column does not

have SYSDATE set as DEFAULT. Your manager has decided she would like to be able to set the

starting date of promotions to the current day for some entries. This will require three steps:

a. In your schema, Make a copy of the Global Foods F\_PROMOTIONAL\_MENUS table using the

following SQL statement:

CREATE TABLE copy\_f\_promotional\_menus

AS (SELECT \* FROM f\_promotional\_menus)

Done

b. Alter the current START\_DATE column attributes using:

ALTER TABLE copy\_f\_promotional\_menus

MODIFY(start\_date DATE DEFAULT SYSDATE)

Done

c. INSERT the new information and check to verify the results.

INSERT a new row into the copy\_f\_promotional\_menus table for the manager’s new

promotion. The promotion code is 120. The name of the promotion is ‘New Customer.’ Enter

DEFAULT for the start date and '01-Jun-2005' for the ending date. The giveaway is a 10%

discount coupon. What was the correct syntax used?

insert into copy\_f\_promotional\_menus

values (120, 'New Customer', DEFAULT, '01-Jun-2005', '10% discount coupon')

3. Allison Plumb, the event planning manager for DJs on Demand, has just given you the following

list of CDs she acquired from a company going out of business. She wants a new updated list of

CDs in inventory in an hour, but she doesn’t want the original D\_CDS table changed. Prepare an

updated inventory list just for her.

a. Assign new cd\_numbers to each new CD acquired.

b. Create a copy of the D\_CDS table called manager\_copy\_d\_cds. What was the correct syntax

used?

create table manager\_copy\_d\_cds as (select \* from d\_cds)

c. INSERT into the manager\_copy\_d\_cds table each new CD title using an INSERT statement.

Make up one example or use this data:

20, 'Hello World Here I Am', 'Middle Earth Records', '1998'

What was the correct syntax used?

insert into manager\_copy\_d\_cds

values (20, 'Hello World Here I Am', 'Middle Earth Records', '1998')

d. Use a merge statement to add to the manager\_copy\_d\_cds table, the CDs from the original

table. If there is a match, update the title and year. If not, insert the data from the original table.

What was the correct syntax used?

MERGE INTO manager\_copy\_d\_cds tgt USING d\_cds src

ON (src.cd\_number = tgt.cd\_number)

WHEN MATCHED THEN UPDATE

SET tgt.title = src.title, tgt.producer = src.producer, tgt.year = src.year

WHEN NOT MATCHED THEN INSERT

VALUES (src.cd\_number, src.title, src.producer, src.year);

4. Run the following 3 statements to create 3 new tables for use in a Multi-table insert statement. All

3 tables should be empty on creation, hence the WHERE 1=2 condition in the WHERE clause.

CREATE TABLE sal\_history (employee\_id, hire\_date, salary)

AS SELECT employee\_id, hire\_date, salary

FROM employees

WHERE 1=2;

Done;

CREATE TABLE mgr\_history (employee\_id, manager\_id, salary)

AS SELECT employee\_id, manager\_id, salary

FROM employees

WHERE 1=2;

Done;

CREATE TABLE special\_sal (employee\_id, salary)

AS SELECT employee\_id, salary

FROM employees

WHERE 1=2;

Done;

Once the tables exist in your account, write a Multi-Table insert statement to first select the

employee\_id, hire\_date, salary, and manager\_id of all employees. If the salary is more than

20000 insert the employee\_id and salary into the special\_sal table. Insert the details of

employee\_id, hire\_date, and salary into the sal\_history table. Insert the employee\_id,

manager\_id, and salary into the mgr\_history table.

You should get a message back saying 39 rows were inserted. Verify you get this message and

verify you have the following number of rows in each table:

Sal\_history: 19 rows

Mgr\_history: 19 rows

Special\_sal: 1

INSERT FIRST

WHEN salary > 20000 THEN

INTO special\_sal

VALUES(employee\_id, salary)

ELSE

INTO sal\_history

VALUES(employee\_id, hire\_date, salary)

INTO mgr\_history

VALUES(employee\_id, manager\_id, salary)

SELECT employee\_id, salary, hire\_date, manager\_id

FROM employees;