

Database Programming with PL/SQL

3-1: Review of SQL DML Practice Activities

Vocabulary

Identify the vocabulary word for each definition below:

DELETE	Statement used to remove existing rows in a table.
INSERT	Statement used to add new rows to a table.
MERGE	Statement used to INSERT and/or UPDATE a target table, based on matching values in a source table.
UPDATE	Statement used to modify existing rows in a table.
DDL	When you create, change, or delete an object in a database.
DML	When you change data in an object (for example, by inserting or deleting rows).

Try It / Solve It

1. Evaluate the following SQL statement.

DELETE FROM students;

This SQL statement will:

- A. Not execute due to wrong syntax
- B. Delete the first row from STUDENTS
- C. **Delete all rows from STUDENTS**
- D. None of the above

2. Evaluate the following SQL statement.

```
INSERT INTO STUDENTS (id, last_name, first_name)
```

```
VALUES (29,'Perez','Jessica');
```

This SQL statement:

A. Does an explicit insert

B. Does an implicit insert

Use the following table for questions 3 through 8.

grocery_items		
product_id	brand	description
110	Colgate	Toothpaste
111	Ivory	Soap
112	Heinz	Ketchup

3. Write a SQL statement to create the above table.

```
CREATE TABLE grocery_items (product_id INT, brand VARCHAR(20), description  
VARCHAR(20));
```

4. Write and execute three SQL statements to explicitly add the above data to the table.

```
INSERT INTO grocery_items (product_id, brand, description) VALUES ('110', 'Colgate', '  
Toothpaste');
```

```
INSERT INTO grocery_items (product_id, brand, description) VALUES ('111', 'Ivory', '  
'Soap');
```

```
INSERT INTO grocery_items (product_id, brand, description) VALUES ('112', 'Heinz', '  
'Ketchup');
```

5. Write and execute a SQL statement that will explicitly add your favorite beverage to the table.

```
INSERT INTO grocery_items (product_id, brand, description) VALUES ('113', 'Nescafe', '  
'Coffe');
```

6. Write and execute a SQL statement that modifies the description for Heinz ketchup to "tomato catsup".

```
UPDATE grocery_items SET description='tomato catsup' WHERE brand='Heinz';
```

7. Write and execute a SQL statement that will implicitly add your favorite candy to the table.

```
INSERT INTO grocery_items ('114', 'Relaxa', 'Candy');
```

8. Write and execute a SQL statement that changes the soap brand from “Ivory” to “Dove”.

UPDATE grocery_items SET brand="Dove" WHERE brand="Ivory";

Use the following table for questions 9 through 14.

new_items		
product_id	brand	Description
110	Colgate	Dental paste
175	Dew	Soda
275	Palmolive	Dish detergent

9. Write and execute SQL statements to create the new_items table and populate it with the data in the table.

CREATE TABLE new_items (product_id INT, brand VARCHAR(20), Description VARCHAR(20));

INSERT INTO new_items(product_id) (SELECT product_id FROM grocery_items WHERE product_id < 115);

10. Write a SQL statement that will update the grocery_items table with the brand and description from the new_items table when the product ID values match. If they don't match, add a new row to the grocery_items table. DO NOT EXECUTE YOUR STATEMENT YET.

MERGE INTO grocery_items USING new_items ON (product_id.grocery_items = product_id.new_items) WHEN MATCHED THEN UPDATED SET grocery_items.brand = new_items.brand , grocery_items.description = new_items.description;

11. How many rows will be updated by the SQL statement in question 10?

1 row

12. How many rows will be inserted by the SQL statement in question 10?

2 row

13. Which of the following is true about the SQL statement in question 10?

- A. new_items is the source table and grocery_items is the targettable.
- B. grocery_items is the source table and new_items is the target table.**

14. Execute the SQL statement you wrote in question 10, and then SELECT all data from the grocery_items table to verify your answers to questions 11 and 12.

product_id	brand	description
110	Colgate	Dental Paste
111	Ivory	Soap
112	Heinz	tomato catsup
113	Nescafe	Coffe
114	Relaxa	Candy
175	Dew	Soda
275	Palmolive	Dish Detergent

7 rows in set (0.00 sec)