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.
Data definition language	When you create, change, or delete an object in a database.
Data manipulation language	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

```
CREATE TABLE grocery_items (
   product_id int,
   brand varchar,
   description varchar
);

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');
```

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

4. Write and execute three SQL statements to explic̄͟͟ ̃͟ ̃͟ ͟ ̃͟

```
INSERT INTO grocery_items (product_id, brand, description)
VALUES (113, 'Simply', 'Lemonade');
```

5. Write and execute a SQL statement that will explic̄

```
UPDATE grocery_items
SET description = 'tomato catsup'
WHERE product_id = 112;
```

6. Write and execute a SQL statement that modifies t   to catsup".

```
INSERT INTO grocery_items
VALUES (114, 'Bounty', 'Candy');
```

7. Write and execute a SQL statement that will impli

8. Write and execute a SQL statement that changes

```
UPDATE grocery_items
SET brand='Dove'
WHERE product_id = 111;
```

Use the following table for questions 9 through 14.

new_items		
product_id	brand	descript
110	Colgate	Dental pa
175	Dew	Soda
275	Palmolive	Dish deter

```
CREATE TABLE new_items (
   product_id int,
   brand varchar,
   description varchar
);

INSERT INTO new_items
VALUES (110, 'Colgate', 'Dental paste');
INSERT INTO new_items
VALUES (175, 'Dew', 'Soda');
INSERT INTO new_items
VALUES (275, 'Palmolive', 'Dish detergent');
```

9. Write and execute SQL statem... the table.

```
MERGE INTO grocery_items AS target
USING new_items AS source
ON target.product_id = source.product_id
WHEN MATCHED THEN
     UPDATE SET
          target.brand = source.brand,
          target.description = source.description
WHEN NOT MATCHED THEN
     INSERT (product_id, brand, description)
     VALUES (source.product_id, source.brand, source.description);
```

10. Write a SQL statement that will ... from the new_items table when ... the grocery_items table. DO N(

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

12. How many rows will be inserted by the SQL statement in question 10?   2

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 target table.
    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.