

## Database Programming with PL/SQL

### 3-1: Review of SQL DML

#### Practice Activities

##### Vocabulary

Identify the vocabulary word for each definition below:

	Statement used to remove existing rows in a table.
	Statement used to add new rows to a table.
	Statement used to INSERT and/or UPDATE a target table, based on matching values in a source table.
	Statement used to modify existing rows in a table.
	When you create, change, or delete an object in a database.
	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.
- 4. Write and execute three SQL statements to explicitly add the above data to the table.
- 5. Write and execute a SQL statement that will explicitly add your favorite beverage to the table.
- 6. Write and execute a SQL statement that modifies the description for Heinz ketchup to “tomato catsup”.
- 7. Write and execute a SQL statement that will implicitly add your favorite candy to the table.
- 8. Write and execute a SQL statement that changes the soap brand from “Ivory” to “Dove.”

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