 



Database Programming with PL/SQL 3-3: Manipulating Data in PL/SQL Practice Activities

# Vocabulary

Identify the vocabulary word for each definition below:

|  |  |
| --- | --- |
| Implicit cursors | Defined automatically by Oracle for all SQL data manipulation statements, and for queries that return only one row. |
| Explicit cursor | Defined by the programmer for queries that return more than one row. |
| MERGE | Statement selects rows from one table to update and/or insert into another table. The decision whether to update or insert into the target table is based on a condition in the ON clause. |
| Insert | Statement adds new rows to the table. |
| Delete | Statement removes rows from the table. |
| Update | Statement modifies existing rows in the table. |

# Try It / Solve It

1. True or False: When you use DML in a PL/SQL block, Oracle uses explicit cursors to track the data changes.
2. SQL%FOUND, SQL%NOTFOUND, and SQL%ROWCOUNT are \_attributes and are

available when you use

implicit

cursors.

The following questions use a copy of the departments table. Execute the following SQL statement to create the copy table.

CREATE TABLE new\_depts AS SELECT \* FROM departments;

1. Examine and run the following PL/SQL code, which obtains and displays the maximum department\_id from new\_depts. What is the maximum department id?

DECLARE

v\_max\_deptnonew\_depts.department\_id%TYPE; BEGIN

SELECT MAX(department\_id) INTO v\_max\_deptno FROM new\_depts;

DBMS\_OUTPUT.PUT\_LINE('The maximum department id is: ' || v\_max\_deptno);

END;

The maximum department id is: 270

1. Modify the code to declare two additional variables (assigning a new department name to one of them), by adding the following two lines to your Declaration section:

v\_dept\_name new\_depts.department\_name%TYPE := 'A New Department';

v\_dept\_id new\_depts.department\_id%TYPE;

1. Modify the code to add 10 to the current maximum department number and assign the result to v\_dept\_id. A screenshot of a computer code

   AI-generated content may be incorrect.
2. Modify the code to include an INSERT statement to insert a new row into the new\_depts table, using v\_dept\_id and v\_dept\_name to populate the department\_id and department\_name columns. Insert NULL into the location\_id and manager\_id columns. Execute your code and confirm that the new row has been inserted.

A screenshot of a computer code

AI-generated content may be incorrect.

1. Now modify the code to use SQL%ROWCOUNT to display the number of rows inserted, and execute the block again.

A screenshot of a computer code

AI-generated content may be incorrect.

1. Now modify the block, removing the INSERT statement and adding a statement that will UPDATE all rows with location\_id = 1700 to location\_id = 1400. Execute the block again to see how many rows were updated.

A screenshot of a computer code

AI-generated content may be incorrect.

**23 rows updated**

Copyright © 2020, Oracle and/or its affiliates. All rights reserved. Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.