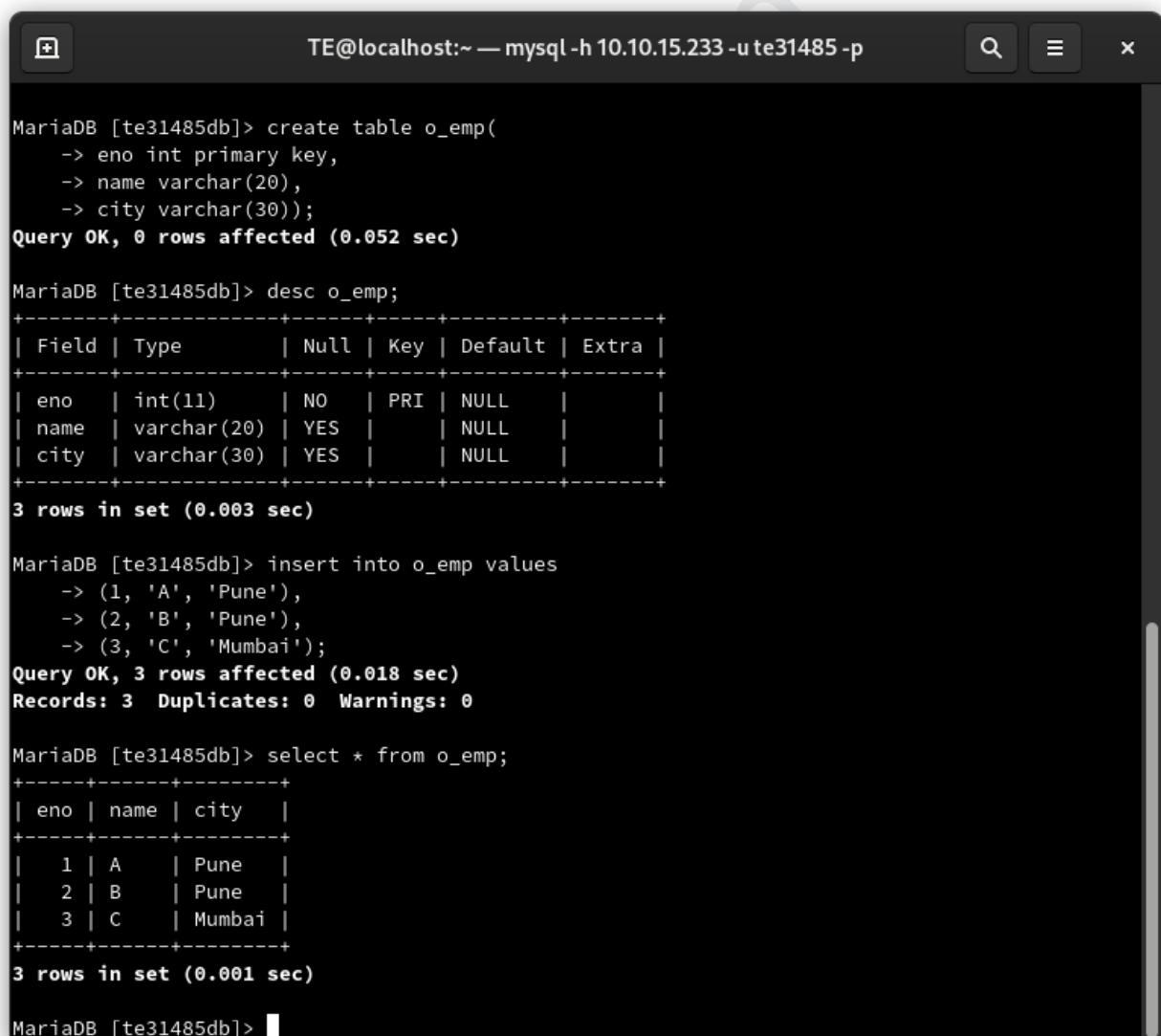


DBMSL

Assignment 6: Cursors

PROBLEM STATEMENT:

Write a PL/SQL block of code using parameterized Cursor, that will merge the data available in the newly created table N_Empld with the data available in the table O_Empld. If the data in the first table already exists in the second table then that data should be skipped.



```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p

MariaDB [te31485db]> create table o_emp(
  -> eno int primary key,
  -> name varchar(20),
  -> city varchar(30));
Query OK, 0 rows affected (0.052 sec)

MariaDB [te31485db]> desc o_emp;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| eno   | int(11)       | NO   | PRI | NULL    |       |
| name  | varchar(20)   | YES  |     | NULL    |       |
| city  | varchar(30)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.003 sec)

MariaDB [te31485db]> insert into o_emp values
  -> (1, 'A', 'Pune'),
  -> (2, 'B', 'Pune'),
  -> (3, 'C', 'Mumbai');
Query OK, 3 rows affected (0.018 sec)
Records: 3  Duplicates: 0  Warnings: 0

MariaDB [te31485db]> select * from o_emp;
+-----+-----+-----+
| eno | name | city  |
+-----+-----+-----+
| 1   | A    | Pune  |
| 2   | B    | Pune  |
| 3   | C    | Mumbai |
+-----+-----+-----+
3 rows in set (0.001 sec)

MariaDB [te31485db]>
```

DELIMITER //

```
DROP PROCEDURE IF EXISTS MergeEmployeeData //
CREATE PROCEDURE MergeEmployeeData()
BEGIN
    DECLARE done INT DEFAULT 0;
    DECLARE empId INT;
    DECLARE empName VARCHAR(20);
    DECLARE empCity VARCHAR(20);

    -- Declare a cursor for the source table (n_emp)
    DECLARE IDCursor CURSOR FOR
        SELECT eno FROM n_emp;

    DECLARE nameCursor CURSOR FOR
        SELECT name FROM n_emp;

    DECLARE cityCursor CURSOR FOR
        SELECT city FROM n_emp;

    -- Declare a handler for when no more rows are found
    DECLARE CONTINUE HANDLER FOR NOT FOUND
        SET done = 1;

    -- Open the cursor
    OPEN IDCursor;
    OPEN nameCursor;
    OPEN cityCursor;

    -- Start the loop to fetch data from the source table
    source_loop: LOOP
        -- Fetch the next row from the source table
        FETCH IDCursor INTO empId;
        FETCH nameCursor INTO empName;
        FETCH cityCursor INTO empCity;

        -- Exit the loop if no more rows are found
        IF done = 1 THEN
            LEAVE source_loop;
        END IF;

        -- Check if the empId already exists in the target table (o_emp)
        IF NOT EXISTS (SELECT 1 FROM o_emp WHERE eno = empId) THEN
            -- If not exists, insert the data into the target table
            INSERT INTO o_emp VALUES (empId, empName, empCity);
        END IF;
    END LOOP;

    -- Close the cursor
    CLOSE IDCursor;
```

```
CLOSE nameCursor;  
CLOSE cityCursor;  
  
END //  
  
DELIMITER ;  
  
-- Call the procedure to merge data  
CALL MergeEmployeeData();
```

31485 Ashwin Taras

```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p
MariaDB [te31485db]> DELIMITER //
MariaDB [te31485db]>
MariaDB [te31485db]> DROP PROCEDURE IF EXISTS MergeEmployeeData //
Query OK, 0 rows affected (0.001 sec)

MariaDB [te31485db]> CREATE PROCEDURE MergeEmployeeData()
-> BEGIN
->   DECLARE done INT DEFAULT 0;
->   DECLARE empId INT;
->   DECLARE empName VARCHAR(20);
->   DECLARE empCity VARCHAR(20);
->
->   -- Declare a cursor for the source table (n_emp)
->   DECLARE IDCursor CURSOR FOR
->     SELECT eno FROM n_emp;
->
->   DECLARE nameCursor CURSOR FOR
->     SELECT name FROM n_emp;
->
->   DECLARE cityCursor CURSOR FOR
->     SELECT city FROM n_emp;
->
->   -- Declare a handler for when no more rows are found
->   DECLARE CONTINUE HANDLER FOR NOT FOUND
->     SET done = 1;
->
->   -- Open the cursor
```

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```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p

-> SET done = 1;
->
-> -- Open the cursor
-> OPEN IDCursor;
-> OPEN nameCursor;
-> OPEN cityCursor;
->
-> -- Start the loop to fetch data from the source table
-> source_loop: LOOP
->   -- Fetch the next row from the source table
->   FETCH IDCursor INTO empId;
->   FETCH nameCursor INTO empName;
->   FETCH cityCursor INTO empCity;
->
->   -- Exit the loop if no more rows are found
->   IF done = 1 THEN
->     LEAVE source_loop;
->   END IF;
->
->   -- Check if the empId already exists in the target table (o_emp)
->   IF NOT EXISTS (SELECT 1 FROM o_emp WHERE eno = empId) THEN
->     -- If not exists, insert the data into the target table
->     INSERT INTO o_emp VALUES (empId, empName, empCity);
->   END IF;
-> END LOOP;
->
-> -- Close the cursor
```

```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p

->
-> -- Check if the empId already exists in the target table (o_emp)
-> IF NOT EXISTS (SELECT 1 FROM o_emp WHERE eno = empId) THEN
->   -- If not exists, insert the data into the target table
->   INSERT INTO o_emp VALUES (empId, empName, empCity);
-> END IF;
-> END LOOP;
->
-> -- Close the cursor
-> CLOSE IDCursor;
-> CLOSE nameCursor;
-> CLOSE cityCursor;
->
-> END //
```

Query OK, 0 rows affected (0.001 sec)

MariaDB [te31485db]>

MariaDB [te31485db]> DELIMITER ;

MariaDB [te31485db]>

```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p

MariaDB [te31485db]> select * from n_emp;
+-----+-----+-----+
| eno  | name | city  |
+-----+-----+-----+
| 2    | D    | Kolkata |
| 3    | E    | Bangaluru |
| 4    | F    | Nashik |
| 5    | G    | Mumbai |
| 6    | H    | Kolkata |
+-----+-----+-----+
5 rows in set (0.001 sec)
```

```
TE@localhost:~ — mysql -h 10.10.15.233 -u te31485 -p

MariaDB [te31485db]> select * from o_emp;
+-----+-----+-----+
| eno  | name | city  |
+-----+-----+-----+
| 1    | A    | Pune  |
| 2    | B    | Pune  |
| 3    | C    | Mumbai |
+-----+-----+-----+
3 rows in set (0.001 sec)

MariaDB [te31485db]> call MergeEmployeeData();
Query OK, 0 rows affected, 1 warning (0.026 sec)

MariaDB [te31485db]> select * from o_emp;
+-----+-----+-----+
| eno  | name | city  |
+-----+-----+-----+
| 1    | A    | Pune  |
| 2    | B    | Pune  |
| 3    | C    | Mumbai |
| 4    | F    | Nashik |
| 5    | G    | Mumbai |
| 6    | H    | Kolkata |
+-----+-----+-----+
6 rows in set (0.001 sec)

MariaDB [te31485db]> 
```