31341

Assignment A6

Problem Statement:
Write a PL/SQL block of code using parameterized Cursor, that will merge the data available in the newly created table N_EmpId with the data available in the table O_EmpId. If the data in the first table already exist in the second table then that data should be skipped.

Learning Objective:
1. To understand and implement types of cursors with PL/SQL block code.

Learning Outcomes: The student will be able to implement:
1. Implement PL/SQL block code.
2. Implement types of curssors

Hardware and software requirements:
PL/SQL, Linux based OS

Theory:
CURSORS:
A cursor is a temporary work area created in the system memory when a SQL statement is executed. A cursor contains information on a select statement and the rows of data accessed by it. This temporary work area is used to store the data retrieved from the database, and manipulate this data. A cursor can hold more than one row, but can process only one row at a time. The set of rows the cursor holds is called the active set.

There are two types of cursors in PL/SQL:

Implicit cursors
These are created by default when DML statements like, INSERT, UPDATE, and

DELETE statements are executed. They are also created when a SELECT statement that returns just one row is executed.

Explicit cursors

They must be created when you are executing a SELECT statement that returns more than one row. Even though the cursor stores multiple records, only one record can be processed at a time, which is called as current row. When you fetch a row the current row position moves to next row. Both implicit and explicit cursors have the same functionality, but they differ in the way they are accessed

Example: Consider the PL/SQL Block that uses implicit cursor attributes as shown below:

```
DECLARE var_rows number(5);
BEGIN
  UPDATE employee
  SET salary = salary + 1000;
  IF SQL%NOTFOUND THEN
    dbms_output.put_line('None of the salaries where updated');
  ELSIF SQL%FOUND THEN
    var_rows = SQL%ROWCOUNT;
    dbms_output.put_line('Salaries for ' || var_rows || 'employees are updated');
  END IF;
END;
```

In the above PL/SQL Block, the salaries of all the employees in the 'employee' table are updated. If none of the employee's salary are updated we get a message 'None of the salaries where updated'. Else we get a message like for example, 'Salaries for 1000 employees are updated' if there are 1000 rows in 'employee' table.

31341

.

Conclusions:

Thus, we understood cursors in SQL, their applications and syntax for creating cursors.

We also created a stored procedure that uses cursors to update records in a table.