PL/SQL 6-1

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November 26, 2023

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1. An implicit cursor is defined by Oracle Server when you do DML statements and a explicit cursor is a user declared for queries that return one row.

2. The SELECT statement

3. Two circumstances when you need an explicit cursor:

   (a) When you have a statement that returns more than one row.
   (b) To produce a report of all employees

4. CURRENCIES tables:

   (a) Display all the rows in CURRENCIES:

```
DECLARE
    CURSOR currencies_cur IS SELECT currency_code, currency_name FROM WF_CURRENCIES ORDER BY
    v_curr_name WF_CURRENCIES.currency_name%TYPE;
    v_curr_code WF_CURRENCIES.currency_code%TYPE;
BEGIN
    OPEN currencies_cur;
```

```
        LOOP
            FETCH currencies_cur INTO v_curr_code, v_curr_name;
            EXIT WHEN currencies_cur%NOTFOUND;
            DBMS_OUTPUT.PUT_LINE(v_curr_code || ',' || v_curr_name);
        END LOOP;
    END;
```

(b) Read and display all the rows in the countries table where region = 5:

```
DECLARE
    CURSOR countries_cur IS SELECT
        country_name,national_holiday_name,national_holiday_date
    FROM WF_COUNTRIES WHERE REGION_ID = 5;
    v_country_name WF_COUNTRIES.country_name%TYPE;
    v_nat_holiday_name WF_COUNTRIES.national_holiday_name%TYPE;
    v_nat_holiday_date WF_COUNTRIES.national_holiday_date%TYPE;
BEGIN
    OPEN countries_cur;
    LOOP
        FETCH countries_cur INTO v_country_name, v_nat_holiday_name, v_nat_holiday_date;
        EXIT WHEN countries_cur%NOTFOUND;
        DBMS_OUTPUT.PUT_LINE(v_country_name || ',' || v_nat_holiday_name || ',' || v_nat_holi
    END LOOP;
END;
```

5. Three guidelines for fetching data from a cursor

(a) Include the same number of variables in the INTO clause of the FETCH statement as columns in the SELECT statement

(b) Match each variable to correspond to the columns position in the cursor definition.

(c) Use %TYPE to insure data types are compatible between variable and table.