Introduction to Explicit Cursors

Terminology

Directions: Identify the vocabulary word for each definition below:

1. _____ Declared by the programmer for queries that return more than one row.
2. _____ A label for a context area or a pointer to the context area.
3. _____ Disables a cursor, releases the context area, and undefines the active set.
4. _____ An allocated memory area used to store the data processed by a SQL statement.
5. _____ Defined automatically by Oracle for all SQL DML statements, and for SELECT statements that return only one row.
6. _____ Statement that executes the query associated with the cursor, identifies the active set, and positions the cursor pointer to the first row.
7. _____ Statement that retrieves the current row and advances the cursor to the next row either until there are no more rows or until a specified condition is met.
8. _____ The set of rows returned by a multiple row query in an explicit cursor operation.

Try It/Solve It

1. In your own words, explain the difference between implicit and explicit cursors.

2. Which SQL statement can use either an explicit or an implicit cursor, as needed?

3. List two circumstances in which you would use an explicit cursor.

4. Exercise using wf_currencies tables:

   A. Write a PL/SQL block to declare a cursor called wf_currencies_cur. The cursor will be used to read and display all rows from the wf_currencies table. You will need to retrieve currency_code and currency_name, ordered by ascending currency_name.

   B. Add a statement to open the wf_currencies_cur cursor.

   C. Add variable declarations and an executable statement to read ONE row through the wf_currencies_cur cursor into local variables.

   D. Add a statement to display the fetched row, and a statement to close the wf_currencies_cur cursor.

   E. Run your block to check that it works. It should display: AFA Afghani.

F. Your cursor in question 4 fetched and displayed only one row. Modify the block so that it fetches and displays all the rows, using a LOOP and EXIT statement. Test your modified block. It should fetch and display 160 rows. If it displays more or less than 160 rows, check that your EXIT statement is in the correct place in the code.

G. Write and test a PL/SQL block to read and display all the rows in the wf_countries table for all countries in region 5 (South America region). For each selected country, display the country_name, national_holiday_date, and national_holiday_name. Display only those countries having a national holiday date that is not null. Save your code (you will need it in the next practice).

Extension Exercise
Write a PL/SQL block to read and display the names of world regions, with a count of the number of countries in each region. Include only those regions having at least 10 countries. Order your output by ascending region name.