Iterative Control: WHILE and FOR Loops

Terminology

Directions: Identify the vocabulary word for each definition below:

1. _____ Repeats a sequence of statements until the controlling condition is no longer TRUE.

2. _____ Repeats a sequence of statements until a set number of iterations have been completed.

Try It/Solve It

1. Write a PL/SQL block to display the country_id and country_name values from the WF_COUNTRIES table for country_id whose values range from 51 through 55. Use a WHILE loop. Increment a variable from 51 through 55. Test your variable to see when it reaches 55. EXIT the loop after you have displayed the 5 countries.

2. Write a PL/SQL block to display the country_id and country_name values from the WF_COUNTRIES table for country_id whose values range from 51 through 55 *in the reverse order*. Use a FOR loop.

3. new_emp table

    A. Execute the following statements to build a new_emp table.

    DROP TABLE new_emps;
    CREATE TABLE new_emps AS SELECT * FROM employees;
    ALTER TABLE new_emps ADD stars VARCHAR2(50);

B. Create a PL/SQL block that inserts an asterisk in the stars column for every whole $1000 of an employee's salary. For example, if an employee has salary of $7800, the string "*******" would be inserted. Use the following code as a starting point.

```
DECLARE
  v_empno          new_emps.employee_id%TYPE := <employee_id>;
  v_asterisk       new_emps.stars%TYPE := NULL;
  v_sal_in_thousands new_emps.salary%TYPE;
BEGIN
  SELECT NVL(TRUNC(salary/1000), 0) INTO v_sal_in_thousands
    FROM new_emps WHERE employee_id = v_empno;

  FOR …

  UPDATE new_emps SET stars = v_asterisk
    WHERE employee_id = v_empno;

END;
```

C. Test your code using employee_ids 124 and 142.

D. Execute a SQL statement to check your results.