

Database Programming with PL/SQL

4-3: Iterative Control: Basic Loops

Practice Activities

Vocabulary

Identify the vocabulary word for each definition below:

Basic loop	Encloses a sequence of statements between the keywords LOOP and END LOOP and must execute at least once.
WHEN EXIT	Statement to terminate a loop.

Try It / Solve It

1. What purpose does a loop serve in PL/SQL?

Repetir cierto numero de veces una o varias sentencias

2. List the types of loops in PL/SQL.

LOOP

WHILE

FOR

3. What statement is used to explicitly end a loop?

EXIT WHEN

4. Write a PL/SQL block to display the country_id and country_name values from the COUNTRIES table for country_id whose values range from 1 through 3. Use a basic loop. Increment a variable from 1 through 3. Use an IF statement to test your variable and EXIT the loop after you have displayed the first 3 countries.

```
DECLARE
```

```
v_country_name COUNTRIES.COUNTRY_name%TYPE;
v_counter NUMBER:=1;
BEGIN
loop

if v_counter <= 3 then
    select country_name INTO v_country_name FROM countries WHERE country_id = v_counter;
    DBMS_OUTPUT.PUT_LINE(v_country_NAME);
    v_counter:= v_counter+1;
    END IF;
    IF v_counter > 3 then EXIT;
    END IF;
end loop;
END;
```

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5. Modify your solution to question 4 above, replacing the IF statement with an EXIT....WHEN statement.

```
DECLARE
v_country_name COUNTRIES.COUNTRY_name%TYPE;
v_counter NUMBER:=1;
BEGIN
loop
```

select country_name INTO v_country_name FROM countries WHERE country_id = v_counter;

```
DBMS_OUTPUT.PUT_LINE(v_country_NAME);
 v_counter:= v_counter+1;
 EXIT WHEN v_counter > 3;
 END IF;
end loop;
END;
6. Create a MESSAGES table and insert several rows into it.
   A. To create the messages table.
DROP TABLE messages;
CREATE TABLE messages (results NUMBER(2));
   B. Write a PL/SQL block to insert numbers into the MESSAGES table. Insert the numbers 1
      through 10, excluding 6 and 8.
      DECLARE
      v_counter NUMBER:=1;
      BEGIN
      LOOP
```

C. Execute a SELECT statement to verify that your PL/SQL block worked.

INSERT INTO MESSAGES VALUES(v_counter);

IF v_counter = 6 or v_counter = 8 then

v_counter:=v_counter+1;

END IF;

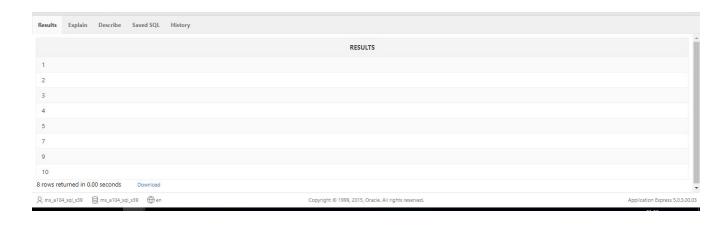
END LOOP;

END;

v_counter:=v_counter+1;

EXIT WHEN v_counter = 11;

SELECT * FROM MESSAGES;



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