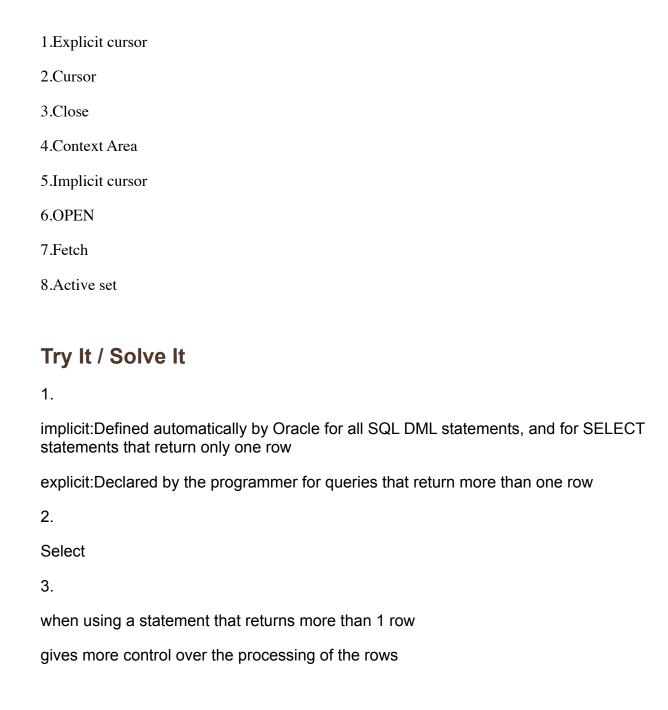
5-1: Introduction to Explicit Cursors

Vocabulary



```
4.
A.
DECLARE
CURSOR currencies cur IS SELECT currency code, currency name FROM
wf Currencies ORDER BY currency name;
curr code wf currencies.currency code%TYPE;
curr name wf currencies.currency name%TYPE;
BEGIN
OPEN currencies cur;
FETCH currencies_cur INTO curr_code,curr_name;
 DBMS OUTPUT.PUT LINE(curr code||' '|| curr name);
CLOSE currencies cur;
END;
F.
DECLARE
CURSOR currencies_cur IS SELECT currency_code,currency_name FROM
wf Currencies ORDER BY currency name;
curr code wf currencies.currency code%TYPE;
curr_name wf_currencies.currency_name%TYPE;
BEGIN
OPEN currencies cur;
LOOP
 FETCH currencies_cur INTO curr_code,curr_name;
 EXIT WHEN currencies cur%NOTFOUND;
 DBMS OUTPUT.PUT LINE(curr code||' '|| curr name);
END LOOP;
CLOSE currencies_cur;
END;
```

G.DECLARE

```
CURSOR countries_cur IS SELECT country_name,
national_holiday_date,national_holiday_name FROM wf_countries WHERE region_id=5
AND national_holiday_date IS NOT NULL;

co_name wf_countries.country_name%TYPE;

co_n_holiday wf_countries.national_holiday_date%TYPE;

co_h_name wf_countries.national_holiday_name%TYPE;

BEGIN

OPEN countries_cur;

LOOP

FETCH countries_cur INTO co_name,co_n_holiday, co_h_name;

EXIT WHEN countries_cur%NOTFOUND;

DBMS_OUTPUT.PUT_LINE(co_name||' '|| co_n_holiday||' '||co_h_name);

END LOOP;

CLOSE countries_cur;

END;
```

5.

- do not include the INTO clause in the cursor declaration
- use ORDER BY for processing rows in an order
- the cursor can be any valid SELECT statement

```
6.
```

```
DECLARE

CURSOR region_cursor IS SELECT region_id, COUNT(*) AS how_many

FROM wf_countries

GROUP BY region_id

HAVING COUNT(*) > 10;

v_reg wf_countries.region_id%TYPE;

nr PLS_INTEGER;

BEGIN OPEN region_cursor;

LOOP

FETCH region_cursor INTO v_reg, nr;

DBMS_OUTPUT.PUT_LINE(v_reg||' -> '||nr);

EXIT WHEN region_cursor%NOTFOUND; END LOOP;

CLOSE region_cursor;
end;
```