



## Lab 11: Cursors

Objective(s):

To learn the Cursors

### Cursors

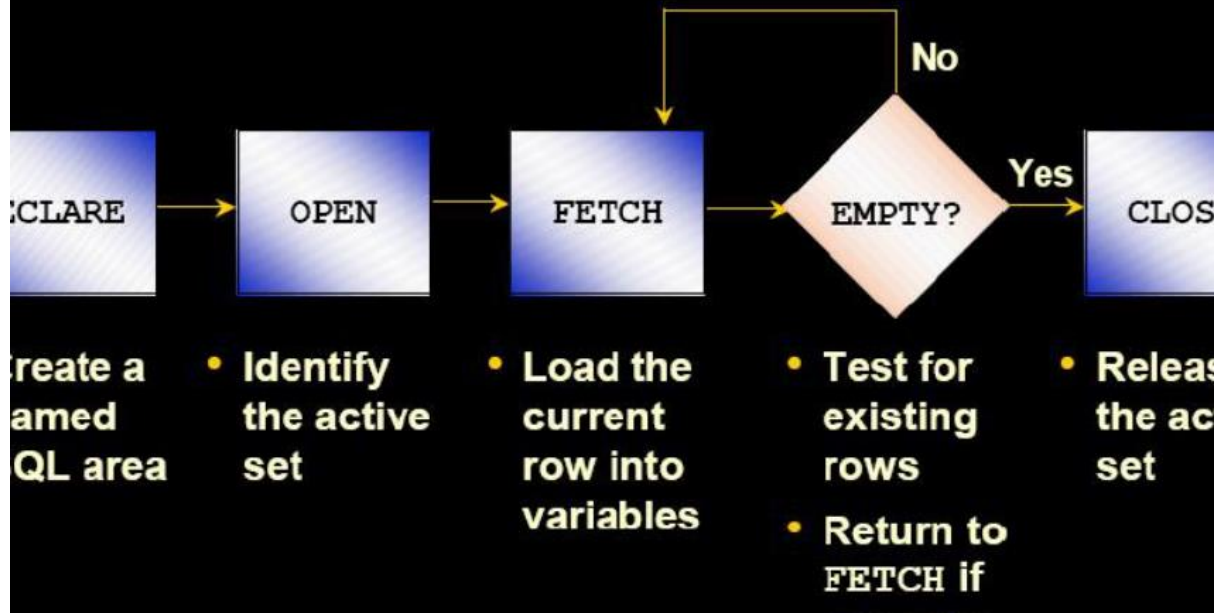
The Oracle Server uses work areas called **private SQL areas** to execute SQL statements and to store process information.

You can use cursors to name a private SQL area and access its stored information.

#### EXPLICIT CURSORS:

- Use explicit cursors to individually process each row returned by a multiple row SELECT statement.
- The set of rows returned by a multiple row query is called the **ACTIVE SET**.
- The size of the Active Set is the number of rows that meet your search criteria.
- A PL/SQL program opens a cursor, processes rows returned by a query and then closes the cursor.
- The cursor marks the current position in an active set.

# Controlling Explicit Cursors



## Example-1:

DECLARE

cursor employee is

select empno, ename from emp where deptno = 10;

v\_empno emp.empno%type;

v\_ename emp.ename%type;

BEGIN

open employee;

loop

fetch employee into v\_empno,v\_ename;

exit when **employee%notfound**;

dbms\_output.put\_line(v\_empno || v\_ename);

end loop;

close employee;

END;

**Example-2:**

Declare

Cursor emp\_cursor Is

    Select ename, deptno from emp;

Begin

For **emp\_record** In emp\_cursor

-- emp\_record is implicitly declared having datatypes same as that of cursor.

-- implicit open and fetch occur.

loop

    If emp\_record.deptno = 30 then

        dbms\_output.put\_line („Employee „ || emp\_record.ename||„works in the sales dept „);

    End If;

End Loop;

-- implicit close occurs

End;

## Exercise

1. Write a PL/SQL program using cursor which displays all employees' names, employees' salaries, their managers' name and managers' salaries from emp table.
2. Write a PL/SQL program using cursor which displays all employees' names, their salaries and their jobs from emp table having salary greater than 4000 and are not CLERKS.
3. Write a PL/SQL program using cursor which displays all employees' names, their departments' names and their managers' names who don't report to JONES. Cursor must use %FOUND attribute to check the cursor.
4. Write a PL/SQL program using CURSOR FOR LOOP which gives increments in salaries to all the employees of emp table with respect to their jobs.

If job = 'CLERK' then increment must be 5% of the salary, If job = 'SALESMAN' then increment must be 10% of the salary, If job = 'ANALYST' then increment must be 15% of the salary else increment must be 20% of the salary.