25-06-2024 Advanced Explicit Cursor Concepts

Cursors with Parameters

1.DECLARE

CURSOR emp_cursor

(p_deptno NUMBER, p_job VARCHAR2) IS

SELECT employee_id, last_name

FROM employees

WHERE department_id = p_deptno

AND job_id = p_job;

BEGIN

OPEN emp_cursor (80, 'SA_REP');

CLOSE emp_cursor;

OPEN emp_cursor (60, 'IT_PROG');

END;

The FOR UPDATE Clause

2.DECLARE

CURSOR emp_cursor IS

SELECT employee_id, last_name, department_name

FROM employees,departments

WHERE employees.department_id =

departments.department_id

AND employees.department_id = 80

FOR UPDATE OF salary NOWAIT;

The WHERE CURRENT OF Clause

3.DECLARE

CURSOR sal_cursor IS

SELECT e.department_id, employee_id, last_name, salary

FROM employees e, departments d

WHERE d.department_id = e.department_id

and d.department_id = 60

```
FOR UPDATE OF salary NOWAIT;
BEGIN
FOR emp_record IN sal_cursor
LOOP
IF emp_record.salary < 5000 THEN
UPDATE employees
SET salary = emp_record.salary * 1.10
WHERE CURRENT OF sal_cursor;
END IF;
END LOOP;
END;
```

Handling Exceptions

Sample predefined exceptions:

- NO_DATA_FOUND
- TOO_MANY_ROWS
- INVALID_CURSOR
- ZERO_DIVIDE
- DUP_VAL_ON_INDEX

User-Defined Exception

```
DECLARE
e_invalid_department EXCEPTION;
BEGIN
UPDATE departments
SET department_name = '&p_department_desc'
WHERE department_id = &p_department_number;
IF SQL%NOTFOUND THEN
RAISE e_invalid_department;
END IF;
EXCEPTION
WHEN e_invalid_department THEN
DBMS_OUTPUT.PUT_LINE('No such department id.'); END;
```