



CORRECTION DE LA SERIE DE TP N° 4

Section : LF2-Informatique

Responsable de cours :

Matière : SGBD

Akil ELKAMEL

PL/SQL (Blocs anonymes, structures de contrôles, curseurs implicites et explicites et exceptions)

Exercice 01:

```
SET SERVEROUTPUT ON
DECLARE
    v_sal_annuel NUMBER(9,3);
BEGIN
    SELECT (sal + NVL(comm, 0)) * 12
    INTO v_sal_annuel
    FROM emp
    WHERE UPPER(ename) = 'MILLER';
    DBMS_OUTPUT.PUT_LINE ('Le revenue annuel de lemployé MILLER
est : ' || v_sal_annuel);
EXCEPTION
    WHEN NO_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE ('Employé MILLER inexistant.');
    WHEN TOO_MANY_ROWS THEN
        DBMS_OUTPUT.PUT_LINE ('Plusieurs employés ont le nom
MILLER.');
END;
/
```

Exercice 02:

```
SET SERVEROUTPUT ON;
DECLARE
    CURSOR cuseur_dept IS SELECT * FROM dept ORDER BY deptno;
    record_dept cuseur_dept%ROWTYPE;
    v_nb_depts NUMBER;
    exception_no_dept EXCEPTION;
BEGIN
    SELECT count(*) INTO v_nb_depts FROM dept;
    IF v_nb_depts = 0 THEN
        RAISE exception_no_dept;
    END IF;

    FOR record_dept IN cuseur_dept LOOP
        DBMS_OUTPUT.PUT_LINE(record_dept.deptno || ' : ' ||
record_dept.dname || ' (' || UPPER(record_dept.loc) || ')');
    END LOOP;
EXCEPTION
    WHEN exception_no_dept THEN
        DBMS_OUTPUT.PUT_LINE('La table DEPT est vide!');
END;
/
```

Exercice 03:

Q1)

```
SET SERVEROUTPUT ON
DECLARE
    CURSOR      c_emp(p_deptno      emp.deptno%TYPE,      p_min_sal
emp.sal%TYPE, p_max_sal emp.sal%TYPE) IS
```

```
        SELECT empno, ename, sal
          FROM emp
         WHERE deptno = p_deptno AND SAL BETWEEN p_min_sal AND
p_max_sal;
      rec c_emp%ROWTYPE;
BEGIN
  OPEN c_emp(20, 1000, 2000);
  DBMS_OUTPUT.PUT_LINE  (RPAD('NO.EMP.',10)    ||    RPAD('NOM
EMP.',10)  ||  LPAD('salaire',10));
LOOP
  FETCH c_emp INTO rec;
  EXIT WHEN C_emp%NOTFOUND;
  DBMS_OUTPUT.PUT_LINE      (RPAD(rec.empno,10)    ||
RPAD(rec.ename,10)  ||  LPAD(rec.sal,10));
END LOOP;
IF c_emp%ROWCOUNT = 0 THEN
  DBMS_OUTPUT.PUT_LINE  ('Aucun employé dans le
département 20 a un salaire entre 1000 et 2000');
END IF;
CLOSE C_emp;
End;
/
```

Q2 (il faut substituer la boucle LOOP ... END LOOP par FOR)

```
FOR rec IN c_emp(20, 1000, 2000)
LOOP
DBMS_OUTPUT.PUT_LINE (RPAD(rec.empno,10)    ||    RPAD(rec.ename,10)
||  LPAD(rec.sal,10));
END LOOP;
```

Exercice 04:

```
DECLARE
    CURSOR c1 IS
        SELECT deptno, dname
        FROM dept
        ORDER BY deptno DESC;

    CURSOR c_emp (p_deptno emp.deptno%TYPE) IS
        SELECT ename, job, sal, NVL(comm,0) comm, sal+NVL(comm, 0)
        salaire
        FROM emp
        WHERE deptno = p_deptno
        ORDER BY salaire;
    v_tot_sal NUMBER := 0;
    v_tot_comm NUMBER := 0;
    v_rowcount NUMBER := 0;
    e_dept_vide EXCEPTION;

BEGIN
    FOR rec1 IN c1
    LOOP
        DBMS_OUTPUT.PUT_LINE('Département : ' || rec1.dname);
        DBMS_OUTPUT.PUT_LINE(RPAD('Nom'           Employé',20) ||
        RPAD('Fonction',20) || LPAD('Salaire',10) ||
        LPAD('Commission',12));
        v_tot_sal := 0;
        v_tot_comm := 0;
        v_rowcount := 0;
        BEGIN --début sous bloc
            FOR rec2 IN c_emp(rec1.Deptno)
            LOOP
                v_rowcount := c_emp%ROWCOUNT;
                DBMS_OUTPUT.PUT_LINE(RPAD(rec2.ename,20) ||
                    RPAD(rec2.job,20) ||
```

```
        LPAD(rec2.sal,10) ||  
        LPAD(rec2.comm,12));  
  
    v_tot_sal := v_tot_sal + NVL(rec2.sal,0);  
    v_tot_comm := v_tot_comm + NVL(rec2.comm,0);  
  
END LOOP;  
  
IF v_rowcount = 0 THEN  
    RAISE e_dept_vide;  
END IF;  
  
DBMS_OUTPUT.PUT_LINE('-----'||  
        LPAD('TOTAL:',20)||  
        LPAD(v_Tot_Sal,22)||  
        LPAD(v_Tot_Comm,12));  
  
EXCEPTION  
WHEN e_dept_vide THEN  
    DBMS_OUTPUT.PUT_LINE('----AUCUN EMPLOYE----');  
END; -- fin sous bloc  
END LOOP;  
  
EXCEPTION  
WHEN OTHERS THEN  
    DBMS_OUTPUT.PUT_LINE('Erreur Générale');  
    DBMS_OUTPUT.PUT_LINE(SUBSTR(SQLERRM,1,80));  
END;  
/
```