



CORRECTION DE LA SERIE DE TP N° 4

Section : LF2-Informatique
Matière : SGBD

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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 l'employé 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 enmployé 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', 20) ||
RPAD('Fonction', 20) ||
LPAD('Commission', 12)) ||
RPAD('Salaire', 10) ||
LPAD('Employé', 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;
/

```