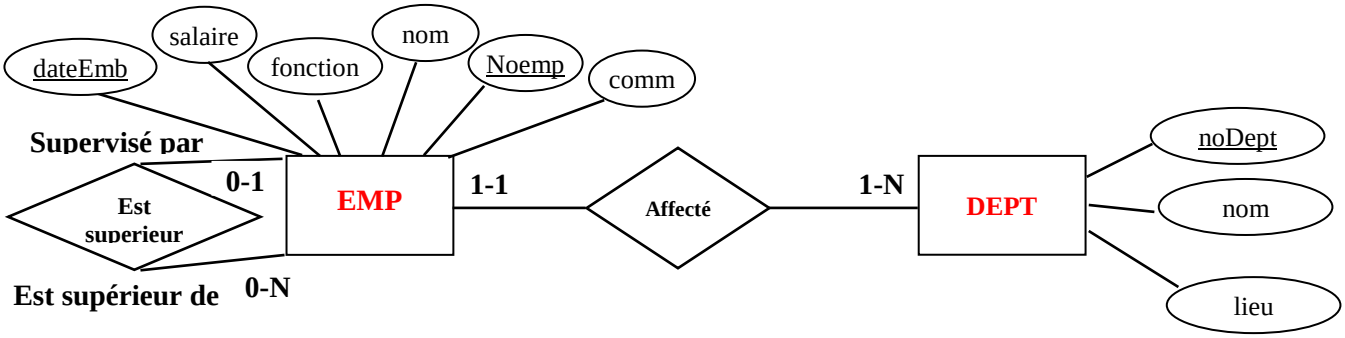
Corrigée TP 03 BDD

Exercice 03 :

A. E/A



B. // Vu au TP 02.

C. SQL

1) On va utiliser la méthode de comptage

ORACLE

```
SELECT fonction, COUNT (*)
FROM emp
GROUP BY fonction
HAVING COUNT (DISTINCT nodept) = (SELECT COUNT(*)
                                 FROM dept)
```

****

```
SELECT DISTINCT fonction
FROM emp AS e1
WHERE NOT EXISTS (SELECT *
                  FROM dept d
                  WHERE NOT EXISTS (SELECT *
                                    FROM emp e2
                                    WHERE e2.nodept=d.nodept
                                    AND e2.fonction = e1.fonction));
```

****

2)

```
SELECT nom
FROM dept
WHERE nodept IN (SELECT nodept
                 FROM emp
                 WHERE fonction ='ingenieur'
                 GROUP BY nodept
                 HAVING COUNT( fonction) >3)
```

****

3) **ORACLE**

```
SELECT fonction
FROM emp
GROUP BY fonction
HAVING COUNT (DISTINCT nodept) >2
```

****

```
SELECT fonction, count (*)
FROM (SELECT fonction, Count(*)
        FROM emp
        GROUP BY fonction, nodept)
GROUP BY fonction
HAVING COUNT (*) > 2;
**********************************************************
```

4) Voir Question 02 Exo 03 Td 03

Avec Oracle (Méthode de comptage)

```
SELECT nodept
FROM emp
WHERE fonction = 'ingenieur' AND nodept IN (SELECT nodept
                                            FROM emp
                                            GROUP BY nodept
                                            HAVING COUNT (DISTINCT fonction) =1)
**************************************************************
SELECT nodept
FROM emp  AS e1
WHERE (fonction = 'Ingenieur')  AND (fonction = ALL (SELECT  fonction
                                                     FROM  emp AS e2
                                                     WHERE  e1.nodept = e2.nodept));
**************************************************************
```

5)

```
SELECT DISTINCT nodept
FROM emp
WHERE nodept NOT IN (SELECT nodept
                     FROM emp
                     WHERE fonction = 'ingenieur')
**********************************************************************
SELECT DISTINCT nodept
FROM emp e1
WHERE NOT EXISTS  (SELECT nodept
                   FROM emp e2
                   WHERE fonction = 'ingenieur'
                   AND e1.nodept = e2.nodept)
**********************************************************************
```

6)

```
SELECT AVG (salaire)
FROM emp
**********************************************************************
```

7)

```
SELECT COUNT (*) as nbr_emp
FROM emp
WHERE nodept IN  (SELECT nodept
                  FROM dept
                  WHERE nom='recherche')
**************************************************************
```

8) **Voir Question 04 Exo 03 Td 03**

ORACLE

```
SELECT nodept
FROM emp
GROUP BY nodept
HAVING COUNT ( noemp)=
(SELECT MAX (count(*))
FROM emp
GROUP BY nodept)
```

****

```
SELECT nom
FROM dept
WHERE nodept IN (SELECT nodept
                 FROM emp
                 GROUP BY nodept
                 HAVING COUNT (*) = (SELECT MAX (nbr)
                                     FROM (SELECT nodept, COUNT (*)  AS nbr
                                           FROM emp
                                           GROUP BY nodept)));
```

****

9)
```
SELECT *
FROM emp
WHERE comm IS NOT NULL AND nom LIKE 'L%'
```

****

10)
```
SELECT nom, fonction, salaire
FROM emp
ORDER BY fonction ASC, salaire DESC
```

****

11)
```
SELECT nodept, MAX(salaire)
FROM emp
GROUP BY nodept
```

****

12) **Avec ORACLE**

```
SELECT noemp, nom
FROM emp
WHERE (nodept, salaire) IN (SELECT nodept, MAX(salaire)
                            FROM emp
                            GROUP BY nodept)
```

****

```
SELECT nom, nodept
FROM emp
WHERE nodept IN (SELECT nodept
                 FROM emp
                 GROUP BY nodept)
AND salaire IN (SELECT MAX(salaire)
                FROM emp
                GROUP BY nodept);
```

****

13) ORACLE

```
SELECT fonction, AVG (salaire)
FROM emp
GROUP BY fonction
HAVING AVG (salaire) IN  (SELECT MIN(AVG(salaire))
                          FROM emp
                          GROUP by fonction)
```

****

```
SELECT fonction, AVG (salaire)
FROM emp
GROUP BY fonction
HAVING AVG (salaire) = (SELECT MIN (nbr)
                        FROM (SELECT fonction, AVG(SALAIRE) AS nbr
                        FROM emp
                        GROUP BY fonction));
```