TONNELLE Nathan

INFO 505 TP

TP1

Exercice 1

1.

```
SELECT * FROM (
   SELECT ENAME, JOB, SAL FROM SCOTT.EMP WHERE SAL > (
      SELECT AVG(SAL) FROM SCOTT.EMP
   ) ORDER BY SAL
) WHERE rownum = 1;
```

ENAME	JOB	SAL
CLARK	MANAGER	2450

2.

```
SELECT ENAME FROM SCOTT.EMP WHERE HIREDATE < (
   SELECT HIREDATE FROM (
      SELECT ENAME,HIREDATE FROM SCOTT.EMP WHERE DEPTNO = (
         SELECT MIN(DEPTNO) FROM (
            SELECT DEPTNO,COUNT(EMPNO) FROM SCOTT.EMP GROUP BY DEPTNO
         )
      ) ORDER BY HIREDATE
   ) WHERE rownum = 1
);
```

ENAME
BLAKE
JONES
SMITH
ALLEN
WARD

3. Je n'ai pas trouvé.
4.
```
SELECT ENAME, EMPNO FROM SCOTT.EMP e WHERE NOT EXISTS (
         SELECT MGR FROM SCOTT.EMP WHERE e.EMPNO = MGR
);
```

ENAME	EMPNO
SMITH	7369
ALLEN	7499
WARD	7521
MARTIN	7654
TURNER	7844
ADAMS	7876
JAMES	7900
MILLER	7934

5. SELECT COUNT(*) FROM SCOTT.EMP WHERE
   MONTHS_BETWEEN(TO_DATE('31/12/1999','DD/MM/YYYY'),hiredate)>222;

COUNT(*)
6

Exercice 2

1. SELECT ROUND(MAX(salary),0) "Salaire_Maximum",
   ROUND(MIN(salary),0) "Salaire_Minimum",
   ROUND(SUM(salary),0) "Salaire_Cummulé",
   ROUND(AVG(salary),0) "Salaire_Moyen"
   FROM HR.EMPLOYEES;

Salaire_Maximum	Salaire_Minimum	Salaire_Cummulé	Salaire_Moyen
24000	2100	691416	6462

2. SELECT JOB_ID,
   ROUND(MAX(SALARY),0) "Salaire_Maximum",
   ROUND(MIN(SALARY),0) "Salaire_Minimum",
   ROUND(SUM(SALARY),0) "Salaire_Cummulé",
   ROUND(AVG(SALARY),0) "Salaire_Moyen"
   FROM HR.EMPLOYEES

GROUP BY JOB_ID;

JOB_ID	Salaire_Maximum	Salaire_Minimum	Salaire_Cummulé	Salaire_Moyen
AD_VP	17000	17000	34000	17000
FI_ACCOUNT	9000	6900	39600	7920
PU_CLERK	3100	2500	13900	2780
SH_CLERK	4200	2500	64300	3215
HR_REP	6500	6500	6500	6500
PU_MAN	11000	11000	11000	11000
AC_MGR	12008	12008	12008	12008
ST_CLERK	3600	2100	55700	2785
AD_ASST	4400	4400	4400	4400
IT_PROG	9000	4200	28800	5760
SA_MAN	14000	10500	61000	12200
AC_ACCOUNT	8300	8300	8300	8300
FI_MGR	12008	12008	12008	12008
ST_MAN	8200	5800	36400	7280
AD_PRES	24000	24000	24000	24000
MK_MAN	13000	13000	13000	13000
SA_REP	11500	6100	250500	8350
MK_REP	6000	6000	6000	6000
PR_REP	10000	10000	10000	10000

3. SELECT MANAGER_ID,MIN(SALARY) FROM HR.EMPLOYEES
   WHERE SALARY is not null AND MANAGER_ID is not null AND SALARY > 6000
   GROUP BY MANAGER_ID ORDER BY MIN(SALARY) DESC;

MANAGER_ID	MIN(SALARY)
102	9000
205	8300
146	7000
145	7000
108	6900
101	6500
100	6500
147	6200
149	6200
148	6100

4. SELECT last_name,TO_CHAR(hire_date, 'DD-MON-YY') HIRE_DATE, TO_CHAR(hire_date, 'DAY') DAY
   FROM HR.EMPLOYEES ORDER By Day ;

LAST_NAME	HIRE_DATE	DAY
Rajs	17-OCT-03	FRIDAY
Russell	01-OCT-04	FRIDAY
Baer	07-JUN-02	FRIDAY
Mavris	07-JUN-02	FRIDAY
Johnson	04-JAN-08	FRIDAY
Faviet	16-AUG-02	FRIDAY
Sciarra	30-SEP-05	FRIDAY
Popp	07-DEC-07	FRIDAY
Taylor	24-MAR-06	FRIDAY
Smith	23-FEB-07	FRIDAY
Ozer	11-MAR-05	FRIDAY

   …

5. Attention, erreur dans le sujet, les dates sont 2005, 2006, 2007, 2008 car il n'y a pas d'embauche avant 2001 si on regarde rapidement les premières lignes de la base de données, et si on fait quand même la requête avec les années 1990s, le résultat est 0 pour chaque colonne.

```
SELECT COUNT(HIRE_DATE) as "Nombre_total_d'employés",
                SUM(DECODE(EXTRACT (year FROM HIRE_DATE),'2005',1,0)) as "2005",
                SUM(DECODE(EXTRACT (year FROM HIRE_DATE),'2006',1,0)) as "2006",
                SUM(DECODE(EXTRACT (year FROM HIRE_DATE),'2007',1,0)) as "2007",
                SUM(DECODE(EXTRACT (year FROM HIRE_DATE),'2008',1,0)) as "2008"
FROM HR.EMPLOYEES;
```

Nombre_total_d'employés	2005	2006	2007	2008
107	29	24	19	11

6.
```
SELECT
        e.LAST_NAME,
         e.HIRE_DATE
FROM HR.EMPLOYEES e WHERE e.HIRE_DATE > (
        SELECT HIRE_DATE FROM HR.EMPLOYEES WHERE LAST_NAME = 'Davies'
);
```

LAST_NAME	HIRE_DATE
Kochhar	21-SEP-05
Hunold	03-JAN-06
Ernst	21-MAY-07
Austin	25-JUN-05
Pataballa	05-FEB-06
Lorentz	07-FEB-07
Chen	28-SEP-05
Sciarra	30-SEP-05
Urman	07-MAR-06
Popp	07-DEC-07
Baida	24-DEC-05
Tobias	24-JUL-05

…

7.
```
SELECT
        e.LAST_NAME,
        e.HIRE_DATE,
        m.LAST_NAME as "manager_LAST_NAME",
        m.HIRE_DATE as "manager_HIRE_DATE"
FROM HR.EMPLOYEES e JOIN HR.EMPLOYEES m ON e.MANAGER_ID = m.EMPLOYEE_ID
WHERE e.HIRE_DATE < m.HIRE_DATE;
```

LAST_NAME	HIRE_DATE	manager_LAST_NAME	manager_HIRE_DATE
De Haan	13-JAN-01	King	17-JUN-03
Raphaely	07-DEC-02	King	17-JUN-03
Kaufling	01-MAY-03	King	17-JUN-03
Greenberg	17-AUG-02	Kochhar	21-SEP-05
Whalen	17-SEP-03	Kochhar	21-SEP-05
Mavris	07-JUN-02	Kochhar	21-SEP-05
Baer	07-JUN-02	Kochhar	21-SEP-05
Higgins	07-JUN-02	Kochhar	21-SEP-05
Austin	25-JUN-05	Hunold	03-JAN-06
Faviet	16-AUG-02	Greenberg	17-AUG-02
Marlow	16-FEB-05	Fripp	10-APR-05

…

8. SELECT LAST_NAME, FIRST_NAME FROM HR.EMPLOYEES
   WHERE LAST_NAME LIKE 'Ki%' OR LAST_NAME LIKE 'Ko%';

LAST_NAME	FIRST_NAME
King	Janette
King	Steven
Kochhar	Neena

9. SELECT REPLACE(STREET_ADDRESS, ' ', '') AS STREET_ADDRESS_ FROM HR.LOCATIONS;

STREET_ADDRESS_
1297ViaColadiRie
93091CalledellaTesta
2017Shinjuku-ku
9450Kamiya-cho
2014JabberwockyRd
2011InteriorsBlvd
2007ZagoraSt
2004CharadeRd
147SpadinaAve
6092BoxwoodSt
40-5-12Laogianggen
1298Vileparle(E)
12-98VictoriaStreet
198ClementiNorth
8204ArthurSt

…

10. SELECT REPLACE(STREET_ADDRESS, 'St', 'Street') "Street_ADDRESS" FROM HR.LOCATIONS
WHERE STREET_ADDRESS LIKE '%St%' AND STREET_ADDRESS NOT LIKE '%Street%';

Street_ADDRESS
2007 Zagora Street
6092 Boxwood Street
8204 Arthur Street

11. CREATE TABLE Contact(
l_name varchar(30),
p_number varchar(30),
CONSTRAINT valid_phone_number
CHECK (REGEXP_LIKE(p_number, '^0d{9}|d{10}$'))
);