1 FEU UNA CONSULTA QUE MOSTRI EL NOM D'AQUELLES CIUTATS (LOCATION.CITY) ON HI HA ALGUN DEPARTAMENT , I A CONTINUACIO EL NUMERO DE DEPARTAMENTS EXISTENTS A LA MATEIXA

SELECT location_id, COUNT(department_id) AS num_departaments
FROM departments
GROUP BY location_id;

```
SQL>
SQL> SELECT location_id, COUNT(department_id) AS num_departaments
  2  FROM departments
  3* GROUP BY location_id;

   LOCATION_ID    NUM_DEPARTAMENTS
_____  _____
          1700                 21
          1400                  1
          2400                  1
          1500                  1
          1800                  1
          2500                  1
          2700                  1

7 rows selected.

SQL>
```

2 Modifiqueu l'anterior consulta per a que mostri tambe les ciutats on no hi ha cap departement.

SELECT l.location_id, COUNT(d.department_id) AS num_departaments
FROM locations l
LEFT JOIN departments d ON l.location_id = d.location_id
GROUP BY l.location_id;

```
  2   FROM locations l
  3   LEFT JOIN departments d ON l.location_id = d.location_id
  4* GROUP BY l.location_id;
```

LOCATION_ID	NUM_DEPARTAMENTS
2200	0
2300	0
1400	1
1700	21
1000	0
1600	0
2600	0
2900	0
3100	0
1500	1
2400	1
3200	0
1800	1
2500	1
2800	0
2700	1
1100	0
1900	0

3 Modifiqueu la primera consulta per a que nomes mostri la informacio de les ciutats que tenen mes d'un departament.

SELECT l.location_id, COUNT(d.department_id) AS num_departaments
FROM locations l
LEFT JOIN departments d ON l.location_id = d.location_id
GROUP BY l.location_id
HAVING COUNT(d.department_id) > 1;

```
SQL>
SQL> SELECT l.location_id, COUNT(d.department_id) AS num_departaments
  2  FROM locations l
  3  LEFT JOIN departments d ON l.location_id = d.location_id
  4  GROUP BY l.location_id
  5* HAVING COUNT(d.department_id) > 1;

  LOCATION_ID    NUM_DEPARTAMENTS
_____ _____
        1700                  21

SQL>
```

4 Feu una consulta que , per cada departament , que mostri el nom departament , pais en el que es troba (COUNTRIES.CONTRY_NAME), numerio d'emplets , la suma i la mitja dels seus salaris. Ordeneu el resultat ascendentment pel nom del pais i descendenment per la mitja dels salaris

```
SELECT
    d.department_name AS nom_departament,
    l.city AS ciutat,
    COUNT(e.employee_id) AS numero_empleats,
    SUM(e.salary) AS suma_salaris,
    AVG(e.salary) AS mitjana_salaris
FROM departments d
JOIN locations l ON d.location_id = l.location_id
LEFT JOIN employees e ON d.department_id = e.department_id
GROUP BY d.department_name, l.city
ORDER BY l.city ASC, AVG(e.salary) DESC;
```

```
  4      COUNT(e.employee_id) AS numero_empleats,
  5      SUM(e.salary) AS suma_salaris,
  6      AVG(e.salary) AS mitjana_salaris
  7  FROM departments d
  8  JOIN locations l ON d.location_id = l.location_id
  9  LEFT JOIN employees e ON d.department_id = e.department_id
 10  GROUP BY d.department_name, l.city
 11* ORDER BY l.city ASC, AVG(e.salary) DESC;
```

NOM_DEPARTAMENT	CIUTAT	NUMERO_EMPLEATS	SUMA_SALARIS	MITJANA_SALARIS
Human Resources	London	1	6500	6500
Public Relations	Munich	1	10000	10000
Sales	Oxford	34	304500	8955,88235294117647058823529411764705882
Recruiting	Seattle	0		
Payroll	Seattle	0		
Benefits	Seattle	0		
NOC	Seattle	0		
IT Support	Seattle	0		
Retail Sales	Seattle	0		
IT Helpdesk	Seattle	0		
Manufacturing	Seattle	0		
Treasury	Seattle	0		

5 Modifiqueu la consulta anterir per a que tabe mostri el numero d'empleats , suma i mitja de salaris d'aquells emleats que no pertanyen a cap departament.

```
SELECT
    'Sense departament' AS nom_departament,
    'Sense país' AS nom_pais,
    COUNT(e.employee_id) AS numero_empleats,
    SUM(e.salary) AS suma_salaris,
    AVG(e.salary) AS mitjana_salaris
FROM employees e
WHERE e.department_id IS NULL
GROUP BY 'Sense departament', 'Sense país'
ORDER BY 2 ASC, 5 DESC;
```

```
SQL> SELECT
  2      'Sense departament' AS nom_departament,
  3      'Sense país' AS nom_pais,
  4      COUNT(e.employee_id) AS numero_empleats,
  5      SUM(e.salary) AS suma_salaris,
  6      AVG(e.salary) AS mitjana_salaris
  7  FROM employees e
  8  WHERE e.department_id IS NULL
  9  GROUP BY 'Sense departament', 'Sense país'
 10* ORDER BY 2 ASC, 5 DESC;

NOM_DEPARTAMENT      NOM_PAIS         NUMERO_EMPLEATS    SUMA_SALARIS   MITJANA_SALARIS
_____ _____ _____ _____ _____
Sense departament    Sense país                      1           7000            7000

SQL>
```