0
1

```
SELECT
    l.city AS ciutat,
    COUNT(d.department_id) AS numero_departaments
FROM locations l
JOIN departments d ON l.location_id = d.location_id
GROUP BY l.city;
```

```
SQL> SELECT
  2      l.city AS ciutat,
  3      COUNT(d.department_id) AS numero_departaments
  4  FROM locations l
  5  JOIN departments d ON l.location_id = d.location_id
  6* GROUP BY l.city;

CIUTAT                          NUMERO_DEPARTAMENTS
_____  _____
Toronto                                            1
London                                             1
Munich                                             1
Southlake                                          1
South San Francisco                                1
Seattle                                           21
Oxford                                             1

7 rows selected.

SQL>
```

2
```
SELECT
    l.city AS ciutat,
    COUNT(d.department_id) AS numero_departaments
FROM locations l
LEFT JOIN departments d ON l.location_id = d.location_id
GROUP BY l.city;
```

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

CIUTAT                      NUMERO_DEPARTAMENTS
_____  _____
Sao Paulo                                     0
Toronto                                       1
London                                        1
Munich                                        1
Sydney                                        0
Geneva                                        0
Stretford                                     0
Southlake                                     1
Singapore                                     0
Mexico City                                   0
Hiroshima                                     0
Bern                                          0
Bombay                                        0
Utrecht                                       0
Tokyo                                         0
South San Francisco                           1
Beijing                                       0
Seattle                                      21
South Brunswick                               0
Oxford                                        1
Roma                                          0
Venice                                        0
Whitehorse                                    0

23 rows selected.

SQL>
```

3

```
SELECT
    l.city AS ciutat,
    COUNT(d.department_id) AS numero_departaments
FROM locations l
JOIN departments d ON l.location_id = d.location_id
GROUP BY l.city
HAVING COUNT(d.department_id) > 1;
```

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

CIUTAT              NUMERO_DEPARTAMENTS
_____ _____
Seattle                          21

SQL>
```

4
```
SELECT
    d.department_name AS nom_departament,
    c.country_name AS pais,
    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
JOIN countries c ON l.country_id = c.country_id
LEFT JOIN employees e ON d.department_id = e.department_id
GROUP BY d.department_name, c.country_name
ORDER BY c.country_name ASC, mitjana_salaris DESC;
```

```
SQL> SELECT
  2      d.department_name AS nom_departament,
  3      c.country_name AS 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 departments d
  8  JOIN locations l ON d.location_id = l.location_id
  9  JOIN countries c ON l.country_id = c.country_id
 10  LEFT JOIN employees e ON d.department_id = e.department_id
 11  GROUP BY d.department_name, c.country_name
 12* ORDER BY c.country_name ASC, mitjana_salaris DESC;
```

NOM_DEPARTAMENT	PAIS	NUMERO_EMPLEATS	SUMA_SALARIS	MITJANA_SALARIS
Marketing	Canada	2	19000	9500
Public Relations	Germany	1	10000	10000
Sales	United Kingdom	34	304500	8955,88235294117647058823529411764705882
Human Resources	United Kingdom	1	6500	6500
Contracting	United States of America	0		
Corporate Tax	United States of America	0		
Benefits	United States of America	0		
Shareholder Services	United States of America	0		
NOC	United States of America	0		
Control And Credit	United States of America	0		
Payroll	United States of America	0		
Recruiting	United States of America	0		

5

```
SELECT
    'Sense departament' AS nom_departament,
    'Sense país' AS 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 mitjana_salaris DESC;
```



```
SQL> SELECT
  2      'Sense departament' AS nom_departament,
  3      'Sense país' AS 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 mitjana_salaris DESC;
```

NOM_DEPARTAMENT	PAIS	NUMERO_EMPLEATS	SUMA_SALARIS	MITJANA_SALARIS
Sense departament	Sense país	1	7000	7000

```
SQL>
```

6 Feu una consulta que mostri el nom del pais i el numero d'empleats d'aquells paisos amb departaments. Ha de retornar el seguent resultat

```
SELECT c.country_name AS "Nom del País",
     COUNT(e.employee_id) AS "Número d'Empleats"
FROM countries c
JOIN locations l ON c.country_id = l.country_id
JOIN departments d ON l.location_id = d.location_id
LEFT JOIN employees e ON d.department_id = e.department_id
GROUP BY c.country_name
HAVING COUNT(d.department_id) > 0
ORDER BY c.country_name;
```

```
SQL> SELECT c.country_name AS "Nom del País",
  2        COUNT(e.employee_id) AS "Número d'Empleats"
  3  FROM countries c
  4  JOIN locations l ON c.country_id = l.country_id
  5  JOIN departments d ON l.location_id = d.location_id
  6  LEFT JOIN employees e ON d.department_id = e.department_id
  7  GROUP BY c.country_name
  8  HAVING COUNT(d.department_id) > 0
  9* ORDER BY c.country_name;

NomdelPaís                         Númerod'Empleats
_____  _____
Canada                                       2
Germany                                      1
United Kingdom                              35
United States of America                   68

SQL>
```

7 Modifiqueu la consulta anterior per a que tambe apareguin els paisos on no hi ha cap departament

```
SELECT c.country_name AS "Nom del País",
      COUNT(e.employee_id) AS "Número d'Empleats"
FROM countries c
LEFT JOIN locations l ON c.country_id = l.country_id
LEFT JOIN departments d ON l.location_id = d.location_id
LEFT JOIN employees e ON d.department_id = e.department_id
GROUP BY c.country_name
ORDER BY c.country_name;
```

```
SQL> SELECT c.country_name AS "Nom del País",
  2          COUNT(e.employee_id) AS "Número d'Empleats"
  3  FROM countries c
  4  LEFT JOIN locations l ON c.country_id = l.country_id
  5  LEFT JOIN departments d ON l.location_id = d.location_id
  6  LEFT JOIN employees e ON d.department_id = e.department_id
  7  GROUP BY c.country_name
  8* ORDER BY c.country_name;

NomdelPaís                        Númerod'Empleats
_____ _____
Argentina                                0
Australia                                0
Belgium                                  0
Brazil                                   0
Canada                                   2
China                                    0
Denmark                                  0
Egypt                                    0
France                                   0
Germany                                  1
```

6. Feu una consulta que mostri el nom de país i el número d'empleats d'aquells països amb departaments. Ha de retornar el següent resultat.

```
        País                         Número d'empleats
------------------------- -------------------
        Canada                          2
        Germany                         1
        United Kingdom                  35
        United States of America        68
```

7. Modifiqueu la consulta anterior per a que també apareguin

8Feu una consulta que mostri , per cada empleat , el seu nom i cognom (en un a sola columna), la data de caontracte (hire_date)i , en cas de tenir cap el nom i cognom (tambe en una sola columna), nom de departement i ocupacio d'aquest. Aconseguiuque vos surtin 107 registres. L'aspecte del resultat ha de ser el seguent:

9
10