

1.

```
SQL> SELECT CITY, DEPARTMENT_NAME, COUNT(DEPARTMENT_ID)
2 FROM LOCATIONS JOIN DEPARTMENTS
3 ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
4* GROUP BY CITY, DEPARTMENT_NAME;
```

CITY	DEPARTMENT_NAME	COUNT(DEPARTMENT_ID)
Seattle	Finance	1
Seattle	Payroll	1
Seattle	Benefits	1
Seattle	Construction	1
Seattle	IT Support	1
London	Human Resources	1
Seattle	Purchasing	1
Oxford	Sales	1
Munich	Public Relations	1
Seattle	Executive	1

SIES POT FER NATURAL JOIN

```
SQL> SELECT CITY, DEPARTMENT_NAME, COUNT(DEPARTMENT_ID)
2 FROM LOCATIONS NATURAL JOIN DEPARTMENTS
3* GROUP BY CITY, DEPARTMENT_NAME;
```

CITY	DEPARTMENT_NAME	COUNT(DEPARTMENT_ID)
Seattle	Finance	1
Seattle	Payroll	1
Seattle	Benefits	1
Seattle	Construction	1
Seattle	IT Support	1
London	Human Resources	1
Seattle	Purchasing	1
Oxford	Sales	1
Munich	Public Relations	1
Seattle	Executive	1
Seattle	Accounting	1

2.

```
SQL> SELECT CITY, DEPARTMENT_NAME, COUNT(DEPARTMENT_ID)
2 FROM LOCATIONS FULL JOIN DEPARTMENTS
3 ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
4* GROUP BY CITY, DEPARTMENT_NAME;
```

CITY	DEPARTMENT_NAME	COUNT(DEPARTMENT_ID)
Seattle	Finance	1
Seattle	Payroll	1
Singapore		0
London	Human Resources	1
Seattle	Benefits	1
Seattle	Construction	1
Seattle	IT Support	1
Seattle	Purchasing	1
Munich	Public Relations	1
Oxford	Sales	1
Roma		0
Mexico City		0
Bern		0

NO ES POT FER NATURAL JOIN

3.

```
SQL> SELECT CITY, DEPARTMENT_NAME, COUNT(DEPARTMENT_ID)
2 FROM LOCATIONS FULL JOIN DEPARTMENTS
3 ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
4 GROUP BY CITY, DEPARTMENT_NAME
5* HAVING COUNT(DEPARTMENT_ID) > 1;

no rows selected
```

NO ES POT FER NATURAL JOIN

4.

DEPARTMENT_NAME	COUNTRY_NAME	NUM_EMPL	EMPLS	MITJA_SALARI	SUM_SALARI
Marketing	Canada	2		9500	19000
Public Relations	Germany	1		10000	10000
Sales	United Kingdom	34	8955,882352941176470588235294117647058824		304500
Human Resources	United Kingdom	1		6500	6500
Shipping	United States of America	45	3475,5555555555555555555555555555555555556		156400
Executive	United States of America	3	19333,3333333333333333333333333333333333333		58000
Finance	United States of America	6	8601,3333333333333333333333333333333333333		51608
IT	United States of America	5		5760	28800
Purchasing	United States of America	6		4150	24900
Accounting	United States of America	2		10154	20308
Administration	United States of America	1		4400	4400

```
SQL> SELECT DEPARTMENT_NAME, COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLEATS, AVG(SALARY) AS MITJA_SALARI, SUM(SALARY) AS SUM_SALARI
2 FROM COUNTRIES NATURAL JOIN LOCATIONS NATURAL JOIN DEPARTMENTS JOIN EMPLOYEES
3 ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
4 GROUP BY DEPARTMENT_NAME, COUNTRY_NAME
5* ORDER BY COUNTRY_NAME ASC, AVG(SALARY) DESC;
```

[illegible]

```
SQL> SELECT DEPARTMENT_NAME, COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLAETS, AVG(SALARY) AS MITJA_SALARI, SUM(SALARY) AS SUM_SALARI
2 FROM COUNTRIES JOIN LOCATIONS ON COUNTRIES.COUNTRY_ID = LOCATIONS.COUNTRY_ID
3 JOIN DEPARTMENTS ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
4 RIGHT JOIN EMPLOYEES ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
5 GROUP BY DEPARTMENT_NAME, COUNTRY_NAME
6* ORDER BY COUNTRY_NAME ASC, AVG(SALARY) DESC;
```

DEPARTMENT_NAME	COUNTRY_NAME	NUM_EMPLEATS	MITJA_SALARI	SUM_SALARI
Marketing	Canada	2	9500	19000
Public Relations	Germany	1	10000	10000
Sales	United Kingdom	34	8955,882352941176470588235294117647058824	304500
Human Resources	United Kingdom	1	6500	6500
Executive	United States of America	3	19333,3333333333333333333333333333333333	58000
Accounting	United States of America	2	10154	20308
Finance	United States of America	6	8601,3333333333333333333333333333333333	51608
IT	United States of America	5	5760	28800
Administration	United States of America	1	4400	4400
Purchasing	United States of America	6	4150	24900
Shipping	United States of America	45	3475,5555555555555555555555555555555556	156400
		1	7000	7000

SI ES POT FER NATURAL JOIN

DEPARTMENT_NAME	COUNTRY_NAME	NUM_EMPLAETS	MITJA_SALARI	SUM_SALARI
Marketing	Canada	2	9500	19000
Public Relations	Germany	1	10000	10000
Sales	United Kingdom	34	8955,882352941176470588235294117647058824	304500
Human Resources	United Kingdom	1	6500	6500
Executive	United States of America	3	19333,3333333333333333333333333333	58000
Accounting	United States of America	2	10154	20308
Finance	United States of America	6	8601,3333333333333333333333333333	51608
IT	United States of America	5	5760	28800
Administration	United States of America	1	4400	4400
Purchasing	United States of America	6	4150	24900
Shipping	United States of America	45	3475,5555555555555555555555555555	156400
		1	7000	7000

```
SQL> SELECT COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLAETS
2 FROM COUNTRIES JOIN LOCATIONS ON COUNTRIES.COUNTRY_ID = LOCATIONS.COUNTRY_ID
3 JOIN DEPARTMENTS ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
4 JOIN EMPLOYEES ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
5* GROUP BY COUNTRY_NAME;
```

COUNTRY_NAME	NUM_EMPLEATS
Germany	1
United States of America	68
Canada	2
United Kingdom	35

```
SQL> SELECT COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLEATS
2 FROM COUNTRIES NATURAL JOIN LOCATIONS
3 NATURAL JOIN DEPARTMENTS
4 JOIN EMPLOYEES ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
5* GROUP BY COUNTRY NAME;
```

COUNTRY_NAME	NUM_EMPLEATS
Germany	1
United States of America	68
Canada	2
United Kingdom	35

7.

```
SQL> SELECT COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLEATS
  2 FROM COUNTRIES LEFT JOIN LOCATIONS ON COUNTRIES.COUNTRY_ID = LOCATIONS.COUNTRY_ID
  3 LEFT JOIN DEPARTMENTS ON LOCATIONS.LOCATION_ID = DEPARTMENTS.LOCATION_ID
  4 LEFT JOIN EMPLOYEES ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
  5* GROUP BY COUNTRY_NAME;
```

COUNTRY_NAME	NUM_EMPLEATS
Israel	0
Brazil	0
Argentina	0
Malaysia	0
Singapore	0

SI ES POT FER NATURAL JOIN

```
SQL> SELECT COUNTRY_NAME, COUNT(EMPLOYEE_ID) AS NUM_EMPLEATS
  2 FROM COUNTRIES NATURAL LEFT JOIN LOCATIONS
  3 NATURAL LEFT JOIN DEPARTMENTS
  4 LEFT JOIN EMPLOYEES ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
  5* GROUP BY COUNTRY_NAME;
```

COUNTRY_NAME	NUM_EMPLEATS
Israel	0
Brazil	0
Argentina	0
Malaysia	0
Singapore	0
Italy	0
Netherlands	0
Egypt	0

8.

```
SQL> SELECT EMP.FIRST_NAME || ' ' || EMP.LAST_NAME AS NOM,
  2 EMP.HIRE_DATE AS DATA_CONTRACTE,
  3 MAN.FIRST_NAME || ' ' || MAN.LAST_NAME AS CAP,
  4 DEPARTMENT_NAME AS NOM_DEPARTAMENT,
  5 JOB_TITLE AS OCUPACIO
  6 FROM EMPLOYEES EMP RIGHT JOIN EMPLOYEES MAN ON EMP.EMPLOYEE_ID = MAN.MANAGER_ID
  7 JOIN DEPARTMENTS ON DEPARTMENTS.DEPARTMENT_ID = MAN.DEPARTMENT_ID
  8* JOIN JOBS ON JOBS.JOB_ID = MAN.JOB_ID;
```

NOM	DATA_CONTRACTE	CAP	NOM_DEPARTAMENT	OCUPACIO
Michael Hartstein	17/02/04	Pat Fay	Marketing	Marketing Representative
Shelley Higgins	07/06/02	William Gietz	Accounting	Public Accountant
Steven King	17/06/03	Neena Kochhar	Executive	Administration Vice President
Steven King	17/06/03	Lex De Haan	Executive	Administration Vice President

NO ES POT FER NATURAL JOIN

9.

```
SQL> SELECT FIRST_NAME || ' ' || LAST_NAME AS NOM,
2 TO_CHAR(START_DATE, 'DD MONTH YYYY') AS DATA_INICI,
3 TO_CHAR(END_DATE, 'DD MON YYYY') AS DATA_FI,
4 DEPARTMENT_NAME AS DEPARTAMENT,
5 JOB_TITLE AS OCUPACIO
6 FROM EMPLOYEES JOIN JOB_HISTORY ON EMPLOYEES.EMPLOYEE_ID = JOB_HISTORY.EMPLOYEE_ID
7 JOIN DEPARTMENTS ON DEPARTMENTS.DEPARTMENT_ID = EMPLOYEES.DEPARTMENT_ID
8 JOIN JOBS ON JOBS.JOB_ID = EMPLOYEES.JOB_ID
9* ORDER BY TO_CHAR(START_DATE, 'DD MONTH YYYY') ASC, FIRST_NAME || ' ' || LAST_NAME ASC;
```

NOM	DATA_INICI		DATA_FI		DEPARTAMENT	OCUPACIO
Jonathon Taylor	01	GENER 2007	31	DES. 2007	Sales	Sales Representative
Payam Kaufling	01	GENER 2007	31	DES. 2007	Shipping	Stock Manager
Jennifer Whalen	01	JULIOL 2002	31	DES. 2006	Administration	Administration Assistant
Lex De Haan	13	GENER 2001	24	JUL. 2006	Executive	Administration Vice President
Michael Hartstein	17	FEBRER 2004	19	DES. 2007	Marketing	Marketing Manager
Jennifer Whalen	17	SETEMBRE 1995	17	JUNY 2001	Administration	Administration Assistant
Neena Kochhar	21	SETEMBRE 1997	27	OCT. 2001	Executive	Administration Vice President
Den Raphaely	24	MARÇ 2006	31	DES. 2007	Purchasing	Purchasing Manager
Jonathon Taylor	24	MARÇ 2006	31	DES. 2006	Sales	Sales Representative
Neena Kochhar	28	OCTUBRE 2001	15	MARÇ 2005	Executive	Administration Vice President

NO ES POT FER NATURAL JOIN

10.

```
SQL> SELECT DEPARTMENT_NAME AS DEPARTAMENT, FIRST_NAME || ' ' || LAST_NAME AS NOM
2* FROM DEPARTMENTS FULL JOIN EMPLOYEES ON DEPARTMENTS.MANAGER_ID = EMPLOYEES.MANAGER_ID;
```

DEPARTAMENT	NOM
Executive Marketing	Donald OConnell
	Douglas Grant
	Jennifer Whalen
	Michael Hartstein
	Pat Fay
Accounting	Susan Mavris
	Hermann Baer
	Shelley Higgins
	William Gietz
	Steven King