Tehtävä 7. Employees, osa 2

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TVT22SPL

a)

```
mysql> SELECT * FROM employees ORDER BY last_name ASC LIMIT 10;
+--------+------------+------------+-----------+--------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  |
+--------+------------+------------+-----------+--------+------------+
|  11761 | 1964-07-17 | Bartek     | Aamodt    | M      | 1991-06-12 |
|  15427 | 1959-03-06 | Aluzio     | Aamodt    | M      | 1985-03-03 |
|  18182 | 1963-02-23 | Dekang     | Aamodt    | F      | 1988-05-25 |
|  16572 | 1956-11-26 | Matt       | Aamodt    | M      | 1987-06-16 |
|  12791 | 1960-06-16 | Mokhtar    | Aamodt    | M      | 1994-08-14 |
|  12516 | 1958-06-25 | Sreenivas  | Aamodt    | F      | 1990-03-06 |
|  12982 | 1952-12-08 | Sachem     | Aamodt    | F      | 1992-01-11 |
|  17400 | 1962-03-22 | Basim      | Aamodt    | F      | 1991-09-15 |
|  19898 | 1957-03-09 | Vidar      | Aamodt    | M      | 1988-08-06 |
|  17885 | 1954-02-01 | Takanari   | Aamodt    | M      | 1996-08-19 |
+--------+------------+------------+-----------+--------+------------+
10 rows in set (0.15 sec)
```

b)

```
mysql> SELECT * FROM employees ORDER BY last_name, first_name ASC LIMIT 10;
+--------+------------+------------+-----------+--------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  |
+--------+------------+------------+-----------+--------+------------+
| 258641 | 1961-05-23 | Abdelkader | Aamodt    | M      | 1994-12-02 |
| 258005 | 1953-02-17 | Adhemar    | Aamodt    | F      | 1991-01-21 |
| 455773 | 1960-05-04 | Aemilian   | Aamodt    | M      | 1988-04-21 |
| 436560 | 1959-03-16 | Alagu      | Aamodt    | F      | 1991-10-17 |
| 266651 | 1959-05-28 | Aleksander | Aamodt    | F      | 1989-03-29 |
| 487598 | 1962-03-03 | Alexius    | Aamodt    | M      | 1994-12-30 |
| 216963 | 1960-07-16 | Alois      | Aamodt    | M      | 1995-08-24 |
|  15427 | 1959-03-06 | Aluzio     | Aamodt    | M      | 1985-03-03 |
| 100860 | 1964-06-20 | Amabile    | Aamodt    | F      | 1993-02-06 |
| 107070 | 1954-04-24 | Anestis    | Aamodt    | M      | 1990-10-30 |
+--------+------------+------------+-----------+--------+------------+
10 rows in set (0.15 sec)
```

c)

```
mysql> SELECT * FROM employees ORDER BY hire_date DESC LIMIT 5;
+--------+------------+------------+-----------+--------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  |
+--------+------------+------------+-----------+--------+------------+
| 463807 | 1964-06-12 | Bikash     | Covnot    | M      | 2000-01-28 |
| 428377 | 1957-05-09 | Yucai      | Gerlach   | M      | 2000-01-23 |
| 499553 | 1954-05-06 | Hideyuki   | Delgrande | F      | 2000-01-22 |
| 222965 | 1959-08-07 | Volkmar    | Perko     | F      | 2000-01-13 |
|  47291 | 1960-09-09 | Ulf        | Flexer    | M      | 2000-01-12 |
+--------+------------+------------+-----------+--------+------------+
5 rows in set (0.16 sec)
```

d), e)

```
mysql> SELECT * FROM employees JOIN salaries ON employees.emp_no=salaries.emp_no ORDER BY salary DESC LIMIT 1;
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  | emp_no | salary | from_date  | to_date    |
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 158220 | 2002-03-22 | 9999-01-01 |
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
1 row in set (5.94 sec)

mysql> SELECT * FROM employees JOIN salaries ON employees.emp_no=salaries.emp_no ORDER BY salary LIMIT 1;
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  | emp_no | salary | from_date  | to_date    |
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
| 253406 | 1953-09-23 | Olivera    | Baek      | M      | 1994-07-04 | 253406 |  38623 | 2002-02-20 | 9999-01-01 |
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
1 row in set (5.82 sec)
```

f)

```
mysql> SELECT * FROM employees JOIN salaries ON employees.emp_no=salaries.emp_no WHERE salary > 150000;
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  | emp_no | salary | from_date  | to_date    |
+--------+------------+------------+-----------+--------+------------+--------+--------+------------+------------+
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 151115 | 1998-03-23 | 1999-03-23 |
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 153166 | 1999-03-23 | 2000-03-22 |
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 153458 | 2000-03-22 | 2001-03-22 |
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 157821 | 2001-03-22 | 2002-03-22 |
|  43624 | 1953-11-14 | Tokuyasu   | Pesch     | M      | 1985-03-26 |  43624 | 158220 | 2002-03-22 | 9999-01-01 |
|  46439 | 1953-01-31 | Ibibia     | Junet     | M      | 1985-05-20 |  46439 | 150345 | 2002-05-15 | 9999-01-01 |
|  47978 | 1956-03-24 | Xiahua     | Whitcomb  | M      | 1985-07-18 |  47978 | 151929 | 2001-07-14 | 2002-07-14 |
|  47978 | 1956-03-24 | Xiahua     | Whitcomb  | M      | 1985-07-18 |  47978 | 155709 | 2002-07-14 | 9999-01-01 |
|  66793 | 1964-05-15 | Lansing    | Kambil    | M      | 1985-06-20 |  66793 | 150052 | 2002-06-16 | 9999-01-01 |
|  80823 | 1963-01-21 | Willard    | Baca      | M      | 1985-02-26 |  80823 | 151768 | 2001-02-22 | 2002-02-22 |
|  80823 | 1963-01-21 | Willard    | Baca      | M      | 1985-02-26 |  80823 | 154459 | 2002-02-22 | 9999-01-01 |
| 109334 | 1955-08-02 | Tsutomu    | Alameldin | M      | 1985-02-15 | 109334 | 151484 | 1998-02-12 | 1999-02-12 |
| 109334 | 1955-08-02 | Tsutomu    | Alameldin | M      | 1985-02-15 | 109334 | 154885 | 1999-02-12 | 2000-02-12 |
| 109334 | 1955-08-02 | Tsutomu    | Alameldin | M      | 1985-02-15 | 109334 | 155377 | 2000-02-12 | 2001-02-11 |
| 109334 | 1955-08-02 | Tsutomu    | Alameldin | M      | 1985-02-15 | 109334 | 154888 | 2001-02-11 | 2002-02-11 |
| 109334 | 1955-08-02 | Tsutomu    | Alameldin | M      | 1985-02-15 | 109334 | 155190 | 2002-02-11 | 9999-01-01 |
| 205000 | 1956-01-14 | Charmane   | Griswold  | M      | 1990-06-23 | 205000 | 151596 | 2000-10-09 | 2001-10-09 |
| 205000 | 1956-01-14 | Charmane   | Griswold  | M      | 1990-06-23 | 205000 | 153715 | 2001-10-09 | 9999-01-01 |
```

g)

```
mysql> SELECT COUNT(*) FROM employees JOIN dept_emp ON employees.emp_no=dept_emp.emp_no JOIN departments ON dept_emp.dept_no
    -> =departments.dept_no WHERE dept_name = 'Sales';
+----------+
| COUNT(*) |
+----------+
|    52245 |
+----------+
1 row in set (0.80 sec)

mysql> SELECT COUNT(*) FROM employees JOIN dept_emp ON employees.emp_no=dept_emp.emp_no JOIN departments ON dept_emp.dept_no
    -> =departments.dept_no WHERE dept_name = 'Marketing';
+----------+
| COUNT(*) |
+----------+
|    20211 |
+----------+
1 row in set (0.48 sec)
```

h)

```
mysql> SELECT first_name, last_name, dept_name FROM departments
    -> JOIN dept_manager ON departments.dept_no = dept_manager.dept_no
    -> JOIN employees ON employees.emp_no = dept_manager.emp_no;
+-------------+-------------+---------------------+
| first_name  | last_name   | dept_name           |
+-------------+-------------+---------------------+
| Tonny       | Butterworth | Customer Service    |
| Marjo       | Giarratana  | Customer Service    |
| Xiaobin     | Spinelli    | Customer Service    |
| Yuchang     | Weedman     | Customer Service    |
| DeForest    | Hagimont    | Development         |
| Leon        | DasSarma    | Development         |
| Ebru        | Alpin       | Finance             |
| Isamu       | Legleitner  | Finance             |
| Shirish     | Ossenbruggen| Human Resources     |
| Karsten     | Sigstam     | Human Resources     |
| Margareta   | Markovitch  | Marketing           |
| Vishwani    | Minakawa    | Marketing           |
| Krassimir   | Wegerle     | Production          |
| Rosine      | Cools       | Production          |
| Shem        | Kieras      | Production          |
| Oscar       | Ghazalie    | Production          |
| Peternela   | Onuegbe     | Quality Management  |
| Rutger      | Hofmeyr     | Quality Management  |
| Sanjoy      | Quadeer     | Quality Management  |
| Dung        | Pesch       | Quality Management  |
| Arie        | Staelin     | Research            |
| Hilary      | Kambil      | Research            |
| Przemyslawa | Kaelbling   | Sales               |
| Hauke       | Zhang       | Sales               |
+-------------+-------------+---------------------+
24 rows in set (0.01 sec)
```

i)

```
mysql> SELECT AVG(Salary) FROM salaries JOIN employees ON salaries.emp_no = employees.emp_no
    -> JOIN dept_emp ON employees.emp_no = dept_emp.emp_no
    -> JOIN departments ON dept_emp.dept_no = departments.dept_no
    -> WHERE dept_name = 'Marketing';
+-------------+
| AVG(Salary) |
+-------------+
| 71913.2000  |
+-------------+
1 row in set (1.39 sec)

mysql> SELECT AVG(Salary) FROM salaries JOIN employees ON salaries.emp_no = employees.emp_no
    -> JOIN dept_emp ON employees.emp_no = dept_emp.emp_no
    -> JOIN departments ON dept_emp.dept_no = departments.dept_no
    -> WHERE dept_name = 'Sales';
+-------------+
| AVG(Salary) |
+-------------+
| 80667.6058  |
+-------------+
1 row in set (2.25 sec)
```