tietokannat vk 3

A)

```
mysql> select * from departments;
+---------+-------------------+
| dept_no | dept_name         |
+---------+-------------------+
| d009    | Customer Service  |
| d005    | Development       |
| d002    | Finance           |
| d003    | Human Resources   |
| d001    | Marketing         |
| d004    | Production        |
| d006    | Quality Management |
| d008    | Research          |
| d007    | Sales             |
+---------+-------------------+
9 rows in set (0.03 sec)
```

B)

```
select title FROM titles GROUP BY title;
+-------------------+
| title             |
+-------------------+
| Senior Engineer   |
| Staff             |
| Engineer          |
| Senior Staff      |
| Assistant Engineer |
| Technique Leader  |
| Manager           |
+-------------------+
7 rows in set (0.41 sec)
```

C)

```
mysql> select MIN(salary) AS salaries, MAX(salary) AS salaries FROM salaries;
+----------+----------+
| salaries | salaries |
+----------+----------+
|    38623 |   158220 |
+----------+----------+
1 row in set (1.16 sec)
```

D)

```
mysql> select avg(salary) from salaries;
+-------------+
| avg(salary) |
+-------------+
|  63810.7448 |
+-------------+
1 row in set (1.38 sec)
```

E)

```
mysql> select * from employees WHERE last_name LIKE 'Facello';
+--------+------------+------------+-----------+--------+------------+
| emp_no | birth_date | first_name | last_name | gender | hire_date  |
+--------+------------+------------+-----------+--------+------------+
|  10001 | 1953-09-02 | Georgi     | Facello   | M      | 1986-06-26 |
|  10327 | 1954-04-01 | Roded      | Facello   | M      | 1987-09-18 |
|  12751 | 1964-07-06 | Nahum      | Facello   | M      | 1995-01-09 |
|  15346 | 1959-09-26 | Kirk       | Facello   | F      | 1991-12-07 |
|  15685 | 1958-07-12 | Kasturi    | Facello   | M      | 1992-03-13 |
|  18686 | 1962-02-23 | Kwangyoen  | Facello   | F      | 1985-05-02 |
|  19041 | 1957-05-29 | Billur     | Facello   | F      | 1992-08-03 |
|  21947 | 1954-06-18 | Taisook    | Facello   | F      | 1991-07-30 |
|  23938 | 1955-07-11 | Nahum      | Facello   | M      | 1985-09-15 |
|  24774 | 1956-09-23 | Uno        | Facello   | F      | 1989-11-09 |
|  24806 | 1959-09-30 | Charmane   | Facello   | F      | 1989-03-17 |
|  25955 | 1962-10-09 | Christoph  | Facello   | M      | 1989-03-24 |
|  27732 | 1955-06-04 | Girolamo   | Facello   | M      | 1986-06-30 |
|  30320 | 1953-12-21 | Kristine   | Facello   | F      | 1990-06-10 |
|  31107 | 1962-10-13 | Fai        | Facello   | M      | 1994-07-11 |
|  32138 | 1955-04-13 | Anyuan     | Facello   | F      | 1988-10-04 |
|  32580 | 1953-04-25 | Kirk       | Facello   | M      | 1988-05-31 |
|  36371 | 1961-05-29 | Cristinel  | Facello   | M      | 1986-10-14 |
|  37261 | 1957-11-06 | Zijian     | Facello   | F      | 1986-06-30 |
|  41667 | 1953-12-23 | Barna      | Facello   | F      | 1985-09-13 |
|  44502 | 1962-09-16 | Fumitaka   | Facello   | M      | 1985-08-25 |
|  44934 | 1957-02-20 | Rimli      | Facello   | M      | 1991-08-09 |
|  48319 | 1962-09-22 | Genta      | Facello   | F      | 1989-12-02 |
```

F)

```
mysql> select COUNT(*) AS birth_date FROM employees WHERE birth_date BETWEEN '1950-01-01' AND '1959-12-31';
+------------+
| birth_date |
+------------+
|     182886 |
+------------+
1 row in set (0.26 sec)
```

G)

```
mysql> select gender,count(*) FROM employees GROUP BY gender;
+--------+----------+
| gender | count(*) |
+--------+----------+
| M      |   179973 |
| F      |   120051 |
+--------+----------+
2 rows in set (0.28 sec)
```

pet ja owner

```
mysql> select * from owner join pet on owner.ownerID = pet.ownerID;
+------------+-----------+---------------+---------+----------+---------+------+------------+------------+-------+---------+
| first_name | last_name | address       | ownerID | name     | species | sex  | birth      | death      | petID | ownerID |
+------------+-----------+---------------+---------+----------+---------+------+------------+------------+-------+---------+
| Harold     | Lloyd     | Someaddress 1 |       1 | Fluffy   | cat     | f    | 1993-02-04 | NULL       |     1 |       1 |
| Harold     | Lloyd     | Someaddress 1 |       1 | Buffy    | dog     | f    | 1989-05-13 | NULL       |     3 |       1 |
| Benny      | Hill      | Someaddress 3 |       3 | Claws    | cat     | m    | 1994-03-17 | NULL       |     2 |       3 |
| Benny      | Hill      | Someaddress 3 |       3 | Chirpy   | bird    | f    | 1998-09-11 | 2000-09-15 |     6 |       3 |
| Benny      | Hill      | Someaddress 3 |       3 | Whistler | bird    | NULL | 1997-12-09 | NULL       |     7 |       3 |
| Diane      | Keaton    | Someaddress 4 |       4 | Fang     | dog     | m    | 1990-08-27 | NULL       |     4 |       4 |
| Diane      | Keaton    | Someaddress 4 |       4 | Slim     | snake   | m    | 1996-04-29 | NULL       |     8 |       4 |
+------------+-----------+---------------+---------+----------+---------+------+------------+------------+-------+---------+
7 rows in set (0.00 sec)
```

employees 2

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 (0.29 sec)

mysql>
```

B)

```
mysql> select * from employees order by last_name asc, 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 (0.48 sec)
```

C)

```
mysql> select * from employees order by hire_date asc limit 5;
+--------+------------+------------+-------------+--------+------------+
| emp_no | birth_date | first_name | last_name   | gender | hire_date  |
+--------+------------+------------+-------------+--------+------------+
| 110022 | 1956-09-12 | Margareta  | Markovitch  | M      | 1985-01-01 |
| 110511 | 1957-07-08 | DeForest   | Hagimont    | M      | 1985-01-01 |
| 110303 | 1956-06-08 | Krassimir  | Wegerle     | F      | 1985-01-01 |
| 110085 | 1959-10-28 | Ebru       | Alpin       | M      | 1985-01-01 |
| 110183 | 1953-06-24 | Shirish    | Ossenbruggen| F      | 1985-01-01 |
+--------+------------+------------+-------------+--------+------------+
5 rows in set (0.21 sec)
```

D)

```
mysql> select  employees.first_name, employees.last_name, salaries.salary from employees inner join salaries on employees.emp_no=salaries.emp_no order by salaries.salary desc
limit 1;
+------------+-----------+--------+
| first_name | last_name | salary |
+------------+-----------+--------+
| Tokuyasu   | Pesch     | 158220 |
+------------+-----------+--------+
1 row in set (2.82 sec)
```

E)

```
mysql> select  employees.first_name, employees.last_name, salaries.salary from employees inner join salaries on employees.emp_no=salaries.emp_no order by salaries.salary limit
 1;
+------------+-----------+--------+
| first_name | last_name | salary |
+------------+-----------+--------+
| Olivera    | Baek      | 38623  |
+------------+-----------+--------+
1 row in set (3.13 sec)
```

F)

```
mysql> SELECT employees.first_name, employees.last_name, salaries.salary FROM employees JOIN salaries ON
    -> employees.emp_no=salaries.emp_no WHERE salary>150000;
+------------+-----------+--------+
| first_name | last_name | salary |
+------------+-----------+--------+
| Tokuyasu   | Pesch     | 151115 |
| Tokuyasu   | Pesch     | 153166 |
| Tokuyasu   | Pesch     | 153458 |
| Tokuyasu   | Pesch     | 157821 |
| Tokuyasu   | Pesch     | 158220 |
| Ibibia     | Junet     | 150345 |
| Xiahua     | Whitcomb  | 151929 |
| Xiahua     | Whitcomb  | 155709 |
| Lansing    | Kambil    | 150052 |
| Willard    | Baca      | 151768 |
| Willard    | Baca      | 154459 |
| Tsutomu    | Alameldin | 151484 |
| Tsutomu    | Alameldin | 154885 |
| Tsutomu    | Alameldin | 155377 |
| Tsutomu    | Alameldin | 154888 |
| Tsutomu    | Alameldin | 155190 |
| Charmane   | Griswold  | 151596 |
| Charmane   | Griswold  | 153715 |
| Weicheng   | Hatcliff  | 150994 |
| Weicheng   | Hatcliff  | 152687 |
| Mitsuyuki  | Stanfel   | 152220 |
| Sanjai     | Luders    | 150378 |
| Sanjai     | Luders    | 154227 |
| Sanjai     | Luders    | 155513 |
| Honesty    | Mukaidono | 150754 |
| Honesty    | Mukaidono | 152576 |
| Honesty    | Mukaidono | 156286 |
| Weijing    | Chenoweth | 151080 |
| Weijing    | Chenoweth | 152710 |
| Shin       | Birdsall  | 150467 |
| Shin       | Birdsall  | 152412 |
| Mohammed   | Moehrke   | 150740 |
| Lidong     | Meriste   | 150993 |
| Lidong     | Meriste   | 151565 |
| Lidong     | Meriste   | 152208 |
```

G)

```
mysql> SELECT dept_name,COUNT(*) AS Lukumaara FROM departments
    -> JOIN dept_emp ON departments.dept_no=dept_emp.dept_no
    -> JOIN employees ON employees.emp_no=dept_emp.emp_no
    -> where dept_name in('Marketing','Sales')
    -> group by dept_name;
+------------+-----------+
| dept_name  | Lukumaara |
+------------+-----------+
| Marketing  |     20211 |
| Sales      |     52245 |
+------------+-----------+
```

H)

```
mysql> select first_name, last_name, dept_name from dept_manager
    -> JOIN employees ON dept_manager.emp_no=employees.emp_no
    -> JOIN departments on dept_manager.dept_no=departments.dept_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               |
+--------------+--------------+---------------------+
```

I)

```
mysql> select avg(salary) from salaries inner join
    -> dept_emp on salaries.emp_no=dept_emp.emp_no
    -> where dept_emp.dept_no='d007';
+------------+
| avg(salary) |
+------------+
|  80667.6058 |
+------------+
1 row in set (1.16 sec)

mysql> select avg(salary) from salaries inner join
    -> dept_emp on salaries.emp_no=dept_emp.emp_no
    -> where dept_emp.dept_no='d001';
+------------+
| avg(salary) |
+------------+
|  71913.2000 |
+------------+
```

sakila

A)

```
mysql> select * from language order by name;
+-------------+----------+---------------------+
| language_id | name     | last_update         |
+-------------+----------+---------------------+
|           1 | English  | 2006-02-15 05:02:19 |
|           5 | French   | 2006-02-15 05:02:19 |
|           6 | German   | 2006-02-15 05:02:19 |
|           2 | Italian  | 2006-02-15 05:02:19 |
|           3 | Japanese | 2006-02-15 05:02:19 |
|           4 | Mandarin | 2006-02-15 05:02:19 |
+-------------+----------+---------------------+
```

B)

```
mysql> select actor.last_name, film.title from actor inner join film_actor on actor.actor_id = film_actor.actor_id inner join film on film_actor.film_id = film.film_id where actor.last_name='Temple';
+-----------+-----------------------+
| last_name | title                 |
+-----------+-----------------------+
| TEMPLE    | ACADEMY DINOSAUR      |
+-----------+-----------------------+
```

C)

```
mysql>  select film.title, actor.last_name, actor.first_name from actor
    -> inner join film_actor on actor.actor_id=film_actor.actor_id
    -> inner join film on film_actor.film_id=film.film_id
    -> where film.title='Ghost Groundhog';
+-----------------+-----------+------------+
| title           | last_name | first_name |
+-----------------+-----------+------------+
| GHOST GROUNDHOG | HARRIS    | DAN        |
| GHOST GROUNDHOG | TORN      | KENNETH    |
| GHOST GROUNDHOG | GARLAND   | KEVIN      |
| GHOST GROUNDHOG | TEMPLE    | RUSSELL    |
| GHOST GROUNDHOG | BALL      | RENEE      |
+-----------------+-----------+------------+
```

D)

```
mysql> select count(*) from film_category
    -> inner join category on film_category.category_id=category.category_id
    -> where category.name='Horror';
+----------+
| count(*) |
+----------+
|       56 |
+----------+
```

E)

```
mysql> select film.title from film
    -> inner join film_category on film_category.film_id=film.film_id
    -> where film_category.category_id='11';
+----------------------------+
| title                      |
+----------------------------+
| ACE GOLDFINGER             |
| AFFAIR PREJUDICE           |
| AIRPORT POLLOCK            |
| ALABAMA DEVIL              |
```