

a)

```
mysql> select * from employees order by last_name 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 (0.41 sec)

b)

```
mysql> select *
-> from employees
-> order by last_name, first_name
-> 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 (0.49 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 (0.46 sec)

d)

```
mysql> select first_name, last_name, salary from employees join salaries on employees.emp_no=salaries.emp_no where salaries.salary=(select max(salary) from salaries)
-> ;
+-----+-----+-----+
| first_name | last_name | salary |
+-----+-----+-----+
| Tokuyasu   | Pesch     | 158220 |
+-----+-----+-----+
1 row in set (5.54 sec)
```

e)

```
mysql> select first_name, last_name, salary from employees join salaries on employees.emp_no=salaries.emp_no where salaries.salary=(select min(salary) from salaries)
-> ;
+-----+-----+-----+
| first_name | last_name | salary |
+-----+-----+-----+
| Olivera    | Baek      | 38623  |
+-----+-----+-----+
1 row in set (5.77 sec)
```

f)

```
mysql> select first_name, last_name, 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    | Alamelain | 151484 |
| Tsutomu    | Alamelain | 154885 |
+-----+-----+-----+
```

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 (0.89 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 (0.51 sec)
```

h)

```
mysql> select e.first_name, e.last_name, d.dept_name from employees e join dept_manager dm on e.emp_no = dm.emp_no join departments d on dm.dept_no = d.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

i)

```
mysql> select AVG(s.salary) as average_salary from salaries s
-> join dept_emp de on s.emp_no = de.emp_no
-> join departments d on de.dept_no = d.dept_no
-> where d.dept_name = 'Sales';
```

average_salary
80667.6058

1 row in set (1.51 sec)

```
mysql> select avg(s.salary) as average_salary from salaries s
-> join dept_emp de on s.emp_no = de.emp_no
-> join departments d on de.dept_no = d.dept_no
-> where d.dept_name = 'Marketing';
```

average_salary
71913.2000

1 row in set (1.01 sec)

