

```
5:  
a)  
select dept_name from departments;  
+-----+  
| dept_name |  
+-----+  
| Customer Service  
| Development  
| Finance  
| Human Resources  
| Marketing  
| Production  
| Quality Management  
| Research  
| Sales  
+-----+  
b)  
select distinct title from titles;  
+-----+  
| title |  
+-----+  
| Senior Engineer  
| Staff  
| Engineer  
| Senior Staff  
| Assistant Engineer  
| Technique Leader  
| Manager  
+-----+  
c)  
select max(salary) from salaries;  
+-----+  
| max(salary) |  
+-----+  
| 158220 |  
+-----+  
select min(salary) from salaries;  
+-----+  
| min(salary) |  
+-----+  
| 38623 |  
+-----+  
d)  
select avg(salary) from salaries;  
+-----+  
| avg(salary) |  
+-----+  
| 63810.7448 |  
+-----+  
e)  
select * from employees where last_name='Facello';  
f)  
select count(emp_no) from employees where birth_date >='1950-01-01' and  
birth_date <='1959-12-31';
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+-----+
| count(emp_no) |
+-----+
|      182886 |
+-----+
g)
select gender, count(*) from employees group by gender;
+-----+
| gender | count(*) |
+-----+
| M     |    179973 |
| F     |    120051 |
+-----+
6:
create table owner (first_name varchar(255),last_name varchar(255), address
varchar(255), ownerID int primary key auto_increment);
alter table pet add column petID int primary key auto_increment;
alter table pet add column ownerID int;
alter table pet add constraint foreign key(ownerID) references owner(ownerID);
insert into owner values('Harold','Lloyd','Someaddress 1',NULL);
insert into owner values('Gwen','Stefani','Someaddress 2',NULL);
insert into owner values('Benny','Hill','Someaddress 3',NULL);
insert into owner values('Diane','Keaton','Someaddress 4',NULL);
insert into pet values('Slim','snake','m','1996-04-29',NULL,NULL,NULL);
update pet set ownerID=1 where name='Fluffy' or name='Buffy';
update pet set ownerID=2 where name='Claws' or name='Chirpy' or name='Whistler';
update pet set ownerID=3 where name='Fang' or name='Slim';
update pet set ownerID=4 where name='Bowser';
alter table pet drop column owner;
desc pet;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+
| name  | varchar(20) | YES  |     | NULL    |                |
| species | varchar(20) | YES  |     | NULL    |                |
| sex   | char(1)     | YES  |     | NULL    |                |
| birth | date       | YES  |     | NULL    |                |
| death | date       | YES  |     | NULL    |                |
| petID | int        | NO   | PRI | NULL    | auto_increment |
| ownerID | int       | YES  | MUL | NULL    |                |
+-----+-----+-----+-----+-----+
desc owner;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+
| first_name | varchar(255) | YES  |     | NULL    |                |
| last_name  | varchar(255) | YES  |     | NULL    |                |
| address    | varchar(255) | YES  |     | NULL    |                |
| ownerID    | int        | NO   | PRI | NULL    | auto_increment |
+-----+-----+-----+-----+

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7:
a)
select first_name, last_name from employees order by last_name limit 10;
b)
select first_name, last_name from employees order by last_name, first_name limit
10;
c)
select * from employees order by hire_date desc limit 5;
d)
select first_name, last_name, salary from salaries join employees on
salaries.emp_no=employees.emp_no order by salary desc limit 1;
+-----+-----+-----+
| first_name | last_name | salary |
+-----+-----+-----+
| Tokuyasu    | Pesch      | 158220 |
+-----+-----+-----+
e)
select first_name, last_name, salary from salaries join employees on
salaries.emp_no=employees.emp_no order by salary limit 1;
+-----+-----+-----+
| first_name | last_name | salary |
+-----+-----+-----+
| Olivera     | Baek       | 38623  |
+-----+-----+-----+
f)
select first_name, last_name, salary from salaries join employees on
salaries.emp_no=employees.emp_no where salary>150000 and to_date='9999-01-01';
g)
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 |
+-----+
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 |
+-----+
h)
select first_name, last_name, dept_name from employees join dept_manager on
employees.emp_no=dept_manager.emp_no join departments on
departments.dept_no=dept_manager.dept_no where to_date='9999-01-01';
i)
select avg(salary) from salaries join current_dept_emp on
salaries.emp_no=current_dept_emp.emp_no join departments on
current_dept_emp.dept_no=departments.dept_no where dept_name='Sales';
+-----+
| avg(salary) |

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+-----+
| 80660.5488 |
+-----+
select avg(salary) from salaries join current_dept_emp on
salaries.emp_no=current_dept_emp.emp_no join departments on
current_dept_emp.dept_no=departments.dept_no where dept_name='Marketing';
+-----+
| avg(salary) |
+-----+
| 71951.9561 |
+-----+

8:
a)
select * from language order by name;
b)
select title from film join film_actor on film.film_id=film_actor.film_id join
actor on film_actor.actor_id=actor.actor_id where last_name='Temple';
c)
select first_name,last_name from film join film_actor on
film.film_id=film_actor.film_id join actor on film_actor.actor_id=actor.actor_id
where title='Ghost Groundhog';
d)
select count(title) from film join film_category on
film.film_id=film_category.film_id join category on
film_category.category_id=category.category_id where name='Horror';
+-----+
| count(title) |
+-----+
|      56      |
+-----+
e)
select title from film join film_category on film.film_id=film_category.film_id
join category on film_category.category_id=category.category_id where
name='Horror';

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