create table if not exists Employee (

ssn integer primary key,

name varchar(30),

salary real,

age integer,

phone varchar(20),

dno integer);

create table if not exists Department(

dno integer primary key,

dname varchar(30),

budget real,

managerSSN integer,

foreign key (managerSSN) references Employee(ssn));

create table if not exists Children(

name varchar(30),

parentSSN integer,

age integer,

foreign key (parentSSN) references Employee(ssn) on DELETE CASCADE,

primary key (name,parentSSN)

);

alter table Employee add

foreign key (dno) references Department(dno);

insert into Employee values (1,'Val',30000,44,'234322',null);

insert into Department values (1,'CS',555444,1);

update Employee

set dno =1

where ssn = 1;

insert into Children values ('Suzan',1,3);

a)

select \*

from Employee e

where (select count(\*) from children c where c.parentSSN=e.SSN) >= ALL (select count(\*) from Children group by parentSSN);

b)

select phone

from Employee

where age = (select max(age) from Employee);

c)

select name

from Employee e

where (select max(e2.age-c2.age) from Employee e2, Children c2 where c2.parentSSN=e2.ssn) in

(select e.age -c.age as maxDif from Children c where c.parentSSN = e.ssn);

d)

select d.dname

from Department d

where (select count(\*) from Employee e where e.dno = d.dno) >= all

(select count(\*) from Employee e2,Department d2 where e2.dno = d2.dno group by d2.dno);

e)

select e.name

from Employee e

where (select count(\*) from Department d where d.managerSSN=e.SSN) >= all

(select count(\*) from Employee e2,Department d2 where d2.managerSSN=e2.SSN group by e2.ssn);

f)

select \*

from Employee

order by salary desc;

g)

select name

from Employee e

where (select max(budget) from Department d where d.managerSSn = e.ssn) =

(select max(budget) from department);

h)

select name

from Employee e

where exists (select \* from Children c where c.parentSSn = e.ssn and c.name='Joe');