

AIRLINE DATABASE

FLIGHTS

```
create table flights(  
  flno int,  
  ffrom varchar(20),  
  tto varchar(20),  
  distance int,  
  depart timestamp,  
  arrives timestamp,  
  price int,  
  primary key(flno));
```

AIRCRAFTS

```
create table aircrafts(  
  aid int,  
  aname varchar(20),  
  cruisingrange int,  
  primary key(aid));
```

EMPLOYESS

```
create table employess(  
  eid int,  
  ename varchar(20),  
  salary int,  
  primary key(eid));  
  
drop table certified;
```

CERTIFIED

```
create table certified(
```

```
eid int,  
aid int,  
primary key(eid,aid),  
foreign key(eid) references employess(eid),  
foreign key(aid) references aircrafts(aid));  
SELECT * from employess;
```

```
INSERT INTO `movie`.`flights` (`flno`, `ffrom`, `tto`, `distance`, `depart`, `arrives`, `price`) VALUES  
('101', 'bangalore', 'delhi', '2500', '05/05/13 07:15:31.000000000', '05/05/13 17:15:31.000000000',  
'5000');
```

```
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('101', '747', '3000');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('102', 'boeing', '900');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('103', '647', '800');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('104', 'dreamliner', '10000');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('105', 'boeing', '3500');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('106', '707', '1500');  
INSERT INTO `movie`.`aircrafts` (`aid`, `aname`, `cruisingrange`) VALUES ('107', 'dream', '120000');
```

```
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('701', 'A', '50000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('702', 'B', '100000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('703', 'C', '150000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('704', 'D', '90000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('705', 'E', '40000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('706', 'F', '60000');  
INSERT INTO `movie`.`employess` (`eid`, `ename`, `salary`) VALUES ('707', 'G', '90000');
```

```

select * from certified;

INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('701', '101');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('701', '102');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('701', '106');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('701', '105');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('702', '104');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('703', '104');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('704', '104');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('702', '107');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('703', '107');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('704', '107');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('702', '101');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('703', '105');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('704', '105');
INSERT INTO `movie`.`certified` (`eid`, `aid`) VALUES ('705', '103');

```

```

select distinct aname from aircrafts
where aid in(select c.aid from certified c,
employess e where c.eid=e.eid and
not exists( select * from employess e1 where e1.eid=e.eid
and e1.salary<80000));

```

	aname
▶	747
	dreamliner
	boeing
	dream

```

select c.eid ,max(a.cruisingrange) from
certified c, aircrafts a where
c.aid=a.aid group by
c.eid having count(*)>3;

```

	eid	max(a.cruisingrange)
▶	701	3500

```
select ename from employess
where salary<(select min(f.price) from
flights f where f.ffrom='bangalore' and f.tto='frankfurt');
```

	ename
▶	A
	E

```
select a.aname, e.salary from
aircrafts a,employess e, certified c where
c.aid=a.aid and c.eid=e.eid and a.cruisingrange>1000
group by a.aid,a.aname;
```

	aname	salary
▶	747	50000
	dreamliner	100000
	boeing	50000
	707	50000
	dream	100000

```
select temp.name, temp.avgsalary
from ( select a.aid, a.aname as name, avg (e.salary) as avgsalary
from aircrafts a, certified c, employess e
where a.aid = c.aid and c.eid = e.eid and a.cruisingrange > 1000
group by a.aid, a.aname ) temp;
```

	name	avgsalary
▶	747	75000.0000
	dreamliner	113333.3333
	boeing	96666.6667
	707	50000.0000
	dream	113333.3333

select distinct e.ename from employess e, certified c, aircrafts a
 where e.eid=c.eid and c.aid=a.aid and a.aname like 'boeing%';

	ename
▶	A
	C
	D

select aid from aircrafts a
 where a.cruisingrange>(select min(f.distance) from
 flights f where f.ffrom='bangalore' and f.tto='frankfurt');

	aid
▶	104
	107
•	HULL

select f.depart
 from flights f
 where f.flno in ((select f0.flno
 from flights f0
 where f0.ffrom = 'bangalore' and f0.tto = 'delhi'
 and extract(hour from f0.arrives) < 18)
 union
 (select f0.flno
 from flights f0, flights f1
 where f0.ffrom = 'bangalore' and f0.tto <> 'delhi'
 and f0.tto = f1.ffrom and f1.tto = 'delhi'
 and f1.depart > f0.arrives
 and extract(hour from f1.arrives) < 18)
 union
 (select f0.flno
 from flights f0, flights f1, flights f2
 where f0.ffrom = 'bangalore'
 and f0.tto = f1.ffrom
 and f1.tto = f2.ffrom

```

and f2.tto = 'delhi'
and f0.tto <> 'delhi'
and f1.tto <> 'delhi'
and f1.depart > f0.arrives
and f2.depart > f1.arrives
and extract(hour from f2.arrives) < 18));

```

	depart
▶	2005-05-13 07:15:31
	2005-05-13 07:15:31

```

select e.ename, e.salary
from employess e
where e.eid not in ( select distinct c.eid
from certified c )
and e.salary > ( select avg (e1.salary)
from employess e1
where e1.eid in
( select distinct c1.eid
from certified c1 ) );

```

	ename	salary
▶	G	90000