

LAB 6

AIRLINE FLIGHT DATABASES

QUERY:

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

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

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

```
create table certified(  
  eid int,  
  aid int,  
  foreign key(eid) references employess(eid),  
  foreign key(aid) references aircrafts(aid));
```

```
insert into aircrafts values('&aid','&aname','&cruisingrange');  
commit;
```

```
insert into employess values('&eid','&ename','&salary');  
commit;
```

```
insert into certified values('&eid','&aid');  
commit;
```

```
alter session set nls_timestamp_format='rr/mm/dd hh24:mi:ssxff';
```

```
alter session set nls_date_language='english';
```

```
insert into flights  
values('&flno','&ffrom','&tto','&distance','&depart','&arrives','&price');  
commit;
```

```
select * from flights;
```

```
select * from aircrafts;
```

```
select * from employess;
```

```
select * from certified;
```

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

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

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

```
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;
```

```
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;
```

```
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%';
```

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

```
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));

```

```

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 ) );

```

OUTPUTS:

Flight table:

	FLNO	FFROM	TTO	DISTANCE	DEPART	ARRIVES	PRICE
1	101	bangalore	delhi	2500	05/05/13 07:15:31.000000000	05/05/13 17:15:31.000000000	5000
2	102	bangalore	lucknow	3000	05/05/13 07:15:31.000000000	05/05/13 11:15:31.000000000	6000
3	103	lucknow	delhi	500	05/05/13 12:15:31.000000000	05/05/13 17:15:31.000000000	3000
4	107	bangalore	frankfurt	8000	05/05/13 07:15:31.000000000	05/05/13 22:15:31.000000000	60000
5	104	bangalore	frankfurt	8500	05/05/13 07:15:31.000000000	05/05/13 23:15:31.000000000	75000
6	105	kolkata	delhi	3400	05/05/13 07:15:31.000000000	05/05/13 09:15:31.000000000	7000

Aircrafts table:

employees table:

	AID	ANAME	CRUISINGRANGE
1	101	747	3000
2	102	boeing	900
3	103	647	800
4	104	dreamliner	10000
5	105	boeing	3500
6	106	707	1500
7	107	dream	120000

	EID	ENAME	SALARY
1	701	A	50000
2	702	B	100000
3	703	C	150000
4	704	D	90000
5	705	E	40000
6	706	F	60000
7	707	G	90000

Certified table:

	EID	AID
1	701	101
2	701	102
3	701	106
4	701	105
5	702	104
6	703	104
7	704	104
8	702	107
9	703	107
10	704	107
11	702	101
12	703	105
13	704	105
14	705	103

Query 1:

	ANAME
1	747
2	dream
3	dreamliner
4	boeing

Query 2:

	EID	MAX(A.CRUISEGRANGE)
1	701	3500

Query 3:

	ENAME
1	A
2	E

Query 4:

[illegible]

Query 5:

	ENAME
1	C
2	A
3	D

Query 6:

	AID
1	104
2	107

Query 7:

	DEPART
1	05/05/13 07:15:31.000000000
2	05/05/13 07:15:31.000000000

Query 8:

	ENAME	SALARY
1	G	90000