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LAB-5 : FLIGHT DATABASE

→ Query!

```
create database flightdb;
use flightdb;

create table flights(
flno int,
from place varchar(15),
to place varchar(15),
distance int,
departs date time,
arrives date time,
price int,
primary key(flno));

create table aircraft(
aid int,
aname varchar(15),
cruising range int,
primary key (aid));

create table employeees(
eid int,
ename varchar(15),
salary int,
primary key (eid));

create table certified(
eid int,
aid int,
```

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foreign key (eid) references employees (eid),
foreign key (aid) references aircraft (aid));

→ Query 2

use flight db;

insert into flights values (101, 'Bangalore', 'Delhi',
2500, '2005-05-13 07:15:31', '2005-05-13
18:15:31', 5000);
insert into flights values (102, 'Bangalore', 'Lucknow'
3000, '2013-05-05 07:15:31', '2013-05-05 11:15:31', 600
insert into flights values (103, 'Lucknow', 'Delhi', 500,
'2013-05-05 12:15:31', '2013-05-05 17:15:31', 3000);
insert into flights values (107, 'Bangalore', 'Frankfurt',
8000, '2013-05-05 07:15:31', '2013-05-05 22:15:31', 60000);
insert into flights values (104, 'Bangalore', 'Frankfurt'
8500, '2013-05-05 07:15:31', '2013-05-05 23:15:31', 7500
insert into flights values (105, 'Kolkata', 'Delhi', 340
'2013-05-05 07:15:31', '2013-05-05 09:15:31', 7000);
insert into flights values (106, 'Bangalore', 'Kolkata', 1000,
'2013-05-05 01:15:30', '2013-05-05 09:20:30', 10000);
insert into flights values (108, 'Lucknow', 'Kolkata', 100
'2013-05-05 11:30:30', '2013-05-05 15:20:30', 10000);
select * from flights;

insert into aircraft values (101, '747', 3000);
insert into aircraft values (102, 'Boeing', 900);
insert into aircraft values (103, '647', 800);
insert into aircraft values (104, 'Dreamliner', 1000
insert into aircraft values (105, 'Boeing', 3500);

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```
insert into aircraft values (106,'707',1500);
insert into aircraft values (107,'Dream',20000);
insert into aircraft values (108,'704',760);
insert into aircraft values (109,'747',1000);
select * from aircraft;

insert into employees values (701,'A',50000);
insert into employees values (702,'B',100000);
insert into employees values (703,'C',150000);
insert into employees values (704,'D',90000);
insert into employees values (705,'E',40000);
insert into employees values (706,'F',60000);
insert into employees values (707,'G',90000);
select * from employees;

insert into certified values (701,101);
insert into certified values (701,102);
insert into certified values (701,106);
insert into certified values (701,105);
insert into certified values (702,104);
insert into certified values (703,104);
insert into certified values (704,104);
insert into certified values (702,107);
insert into certified values (703,107);
insert into certified values (704,107);
insert into certified values (702,101);
insert into certified values (702,108);
insert into certified values (701,109);
select * from certified;
```

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→ Query 3

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

→ Query 4

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

→ Query 5

```
select ename from employees
where salary < (
select min (price)
from flights
where fromplace = 'Bangalore' and
toplace = 'Frankfurt');
```

→ Query 6

```
select avg (e.salary), c.aid
from certified c, employees e
where c.aid in (select aid
```

from aircraft where cruisingrange >1000)
and e.eid = c.eid group by c.aid;

→ Query 7

select ename from employees where eid in(
select eid from certified where aid in(
select aid from aircraft
where aname = 'Boeing'));

→ Query 8

select aname from aircraft
where cruisingrange > any(select distance
from flights where fromplace = 'Bangalore' and
toplace = 'Delhi');

→ Query 9

select F.flno, F.departs from flights F
where F.flno in((select FO.flno from flights FO
where FO.fromplace = 'Bangalore' and toplace = 'Kolkata'
and EXTRACT(hour from FO.arrives) < 18)
UNION (select FO.flno from flights FO, flights F1
where FO.fromplace = 'Bangalore' and FO.toplace <> 'Kolkata'
and FO.toplace = F1.fromplace and F1.toplace = 'Kolkata'
and F1.departs > FO.arrives
and EXTRACT(hour from F1.arrives) < 18)
UNION (select FO.flno
from flights FO, Flights F1, flights F2
where FO.fromplace = 'Bangalore'

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and F0.toplace = F1.fromplace
and F1.toplace = F2.fromplace
and F2.toplace = 'Kolkata'
and F0.toplace <> 'Kolkata'
and F1.toplace <> 'Kolkata'
and F1.departs > F0.arrives
and F2.departs > F1.arrives
and EXTRACT (hour from F2.arrives) < 18)).