

FLIGHT DATABASE

VARSHA.S

1BM19CS179

[illegible]

```
create table aircraft(
aid int,
aname varchar(15),
cruisingrange int,
primary key (aid)
);
desc aircraft;
```

```
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', 10000);
insert into aircraft values(105, 'Boeing', 3500);
insert into aircraft values(106, '707', 1500);
insert into aircraft values(107, 'Dream', 120000);
insert into aircraft values(108, '707', 760);
insert into aircraft values(109, '747', 1000);
commit;
```

```
select * from aircraft;
```

Aircraft Table :

	aid	aname	cruisingrange
▶	101	747	3000
	102	Boeing	900
	103	647	800
	104	Dreamliner	10000
	105	Boeing	3500
	106	707	1500
	107	Dream	120000
	108	707	760
	109	747	1000
●	NULL	NULL	NULL

```
create table employees (  
    eid int,  
    ename varchar(15),  
    salary int,  
    primary key (eid)  
);  
desc employees;
```

```
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);  
commit;
```

```
select * from employees;
```

Employees Table:

	eid	ename	salary
▶	701	A	50000
	702	B	100000
	703	C	150000
	704	D	90000
	705	E	40000
	706	F	60000
	707	G	90000
•	NULL	NULL	NULL

```

create table certified (
    eid int,
    aid int,
    foreign key (eid) references employees(eid),
    foreign key (aid) references aircraft(aid)
);
desc certified;
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);
commit;
select * from certified;

```

Certified Table :

	eid	aid
▶	701	101
	701	102
	701	106
	701	105
	702	104
	703	104
	704	104
	702	107
	703	107
	704	107
	702	101
	702	108
	701	109

ADDITIONAL QUERIES

Query 1:

```
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));
```

Result:

	aname
▶	747
	Dreamliner
	Dream
	707

Query 2:

```
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;
```

Result:

	max(a.cruisingrange)	eid
▶	3500	701
	120000	702

Query 3:

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

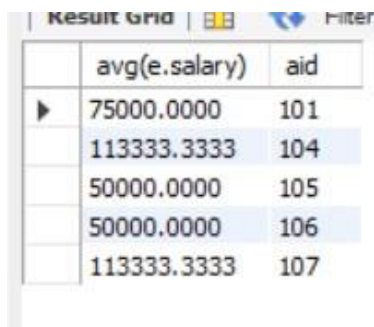
Result:

Result Grid	
	ename
▶	A
	E

Query 4:

```
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;
```

Result:

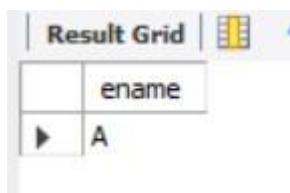


	avg(e.salary)	aid
▶	75000.0000	101
	113333.3333	104
	50000.0000	105
	50000.0000	106
	113333.3333	107

Query 5:

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

Result:



	ename
▶	A

Query 6:

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

Result:



A screenshot of a database query result window. It displays a table with two columns: 'aname' and an unlabeled column. The data rows are: 747, Dreamliner, Boeing, and Dream. The 'Dream' row is highlighted in blue.

	aname
▶	747
	Dreamliner
	Boeing
	Dream

Query 7:

SELECT F.flno,
F.departs FROM
flights F

WHERE F.flno IN ((SELECT F0.flno
FROM flights F0

WHERE F0.fromplace = 'Bangalore' AND F0.toplace =
'Kolkata' AND extract(hour from F0.arrives) < 18)
UNION

(SELECT F0.flno
FROM flights F0, flights F1
WHERE F0.fromplace = 'Bangalore' AND F0.toplace <>
'Kolkata' AND F0.toplace = F1.fromplace AND F1.toplace
= 'Kolkata' AND F1.departs > F0.arrives

```

AND extract(hour from F1.arrives) <
18) UNION
( SELECT F0.flno
FROM flights F0, flights F1,
flights F2 WHERE F0.fromplace
= 'Bangalore' 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));

```

Result

Result Grid			Filter Rows:
	fno	departs	
▶	102	2013-05-05 07:15:31	
	106	2013-05-05 01:15:30	

