

```

create database 44_airline_flight;
use 44_airline_flight;

create table flights(
flno int,
ffrom varchar(50),
tto varchar(50),
distance int,
departs time,
arrives time,
price int,
primary key(flno));

create table aircraft(
aid int,
aname varchar(50),
cruisingrange int,
primary key(aid));

create table employee(
eid int,
ename varchar(50),
salary int,
primary key(eid));

create table certified(
eid int,aid int,
foreign key(aid) references aircraft(aid)
on update cascade on delete cascade,
foreign key(eid) references employee(eid)
on update cascade on delete cascade);

```

```

insert into employee values
(101,'Avinash',50000),
(102,'Lokesh',60000),
(103,'Rakesh',70000),
(104,'Santhosh',82000),
(105,'Tilak',5000);

```

```

insert into aircraft values
(1,'Airbus',2000),
(2,'Boeing',700),
(3,'JetAirways',550),
(4,'Indigo',5000),
(5,'Boeing',4500),
(6,'Airbus',2200);

```

Week 8

Airline database

1BM21CS044

```

insert into certified values
(101,2),(101,4),(101,5),
(101,6),(102,1),(102,3),
(102,5),(103,2),(103,3),
(103,5),(103,6),(104,6),
(104,1),(104,3),(105,3);

```

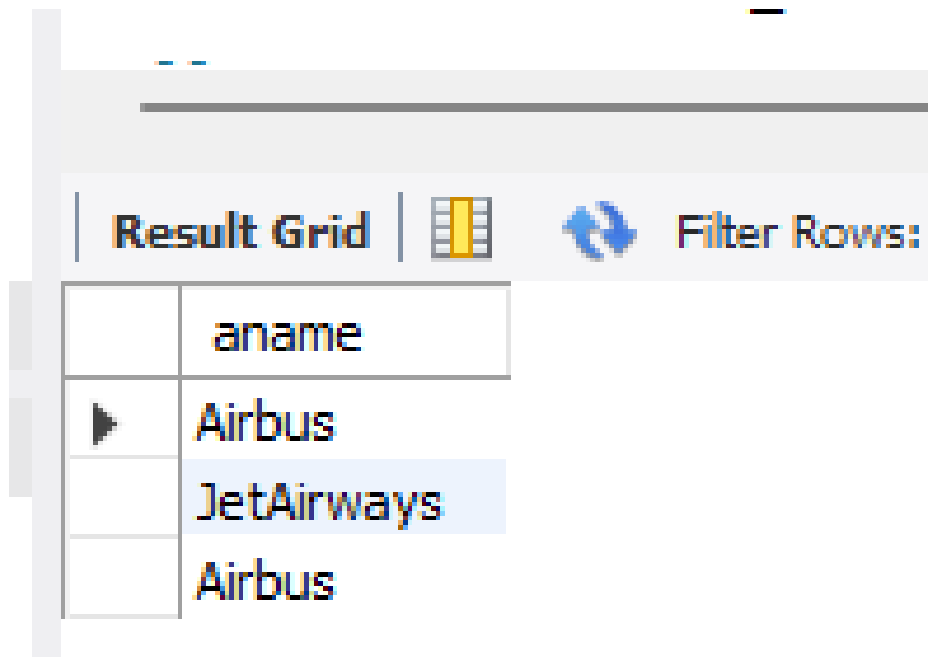
```

insert into flights values
(1,'Banglore','New Delhi',500,'6:00','9:00',5000),
(2,'Banglore','Chennai',300,'7:00','8:30',3000),
(3,'Trivandrum','New Delhi',800,'8:00','11:30',6000),
(4,'Banglore','Frankfurt',10000,'6:00','23:30',50000),
(5,'Kolkata','New Delhi',2400,'11:00','3:30',9000),
(6,'Banglore','Frankfurt',8000,'9:00','23:00',40000)

```

1. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.

```
select a.aname from aircraft a
where a.aid in(
select c.aid from employee e,certified c
where c.eid=e.eid and e.salary>80000);
```



The screenshot shows a database interface with a 'Result Grid' tab. The grid contains a single column labeled 'aname' with three rows of data: 'Airbus', 'JetAirways', and 'Airbus'. The 'JetAirways' row is highlighted in blue. Above the grid, there are icons for a table, a refresh button, and a 'Filter Rows:' label.

	aname
▶	Airbus
	JetAirways
	Airbus

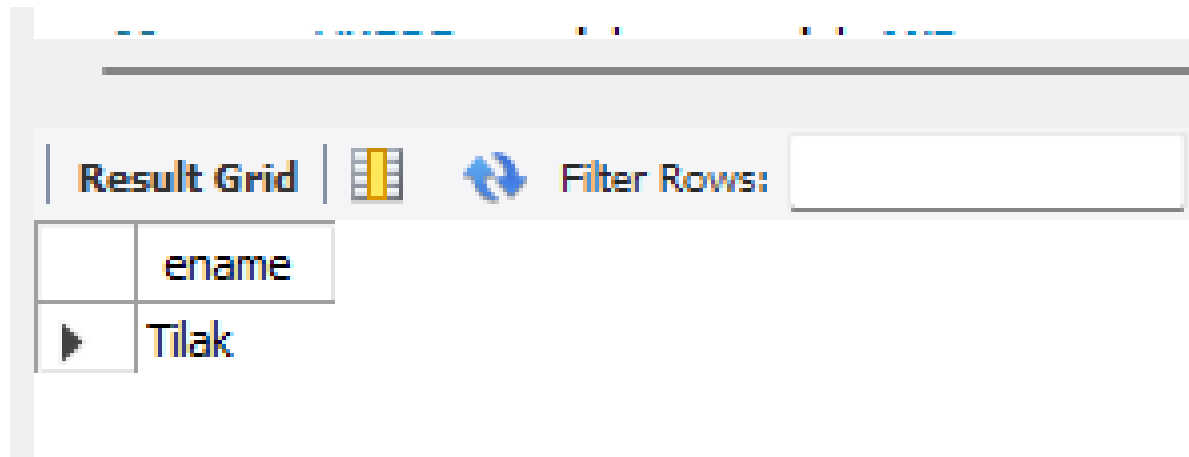
2. For each pilot who is certified for more than three aircraft, find the eid and the maximum cruising range of the aircraft for which she or he is certified

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

Result Grid			Filter Rows:
	eID	MAX(cruising_range)	
▶	102	4500	
	104	2200	
	101	5000	
	103	4500	

3. Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.

```
select e.ename from employee e
where e.salary < (
select min(price) from flights
where ffrom='Bangalore' and tto='Frankfurt');
```



The screenshot shows a database interface with a 'Result Grid' tab. The grid contains one row with the name 'Tilak'. Above the grid is a 'Filter Rows' section with a search icon and an empty text box. The grid has a header row with the column name 'ename' and a data row with the value 'Tilak'.

	ename
▶	Tilak



4. For all aircraft with cruising range over 1000 Kms, find the name of the aircraft and the average salary of all pilots certified for this aircraft.

```
select a.aid,a.aname,avg(salary)
from aircraft a,certified c,employee e
where a.aid=c.aid and c.eid=e.eid and a.cruisingrange>1000
group by a.aid
order by a.aid desc;
```

Result Grid			
Filter Rows:			
	aid	aname	AVG (e.salary)
▶	1	Airbus	71000
	4	Indigo	50000
	5	Boeing	60000
	6	Airbus	67333.3333333333

5. Find the names of pilots certified for some Boeing aircraft

```
select e.ename from employee e
where e.eid in(
select distinct c.eid from certified c
where c.aid in(
select a.aid from aircraft a
where a.aname='Boeing'))
order by e.ename desc;
```

Result Grid			 Filter Rows: <input type="text"/>
	ename		
▶	Rakesh		
	Lokesh		
	Avinash		

6. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi.

```
select a.aid from aircraft a
where a.cruisingrange>(select f.distance from flights f
                        where f.ffrom='Bangalore' and f.tto='New Delhi');
```

Result Grid		Filter Rows:
	aid	
▶	1	
	2	
	3	
	4	
	5	
	6	
⊞	NUL	