FLIGHT DATABASE

```
create database flight_1bm21cs062;
use flight_1bm21cs062;
create table flights(
flno int,
from_place varchar(20),
to_place varchar(20),
distance int,
departs time,
arrives time,
price int,
PRIMARY KEY(flno));
create table aircraft(
aid int,
aname varchar(20),
cruising_range int,
PRIMARY KEY(aid));
create table employee(
eid int,
ename varchar(20),
salary int,
PRIMARY KEY(eid));
create table certified(
eid int,
aid int,
FOREIGN KEY(eid) REFERENCES employee(eid)
 on update cascade on delete cascade,
FOREIGN KEY(aid) REFERENCES aircraft(aid)
 on update cascade on delete cascade);
insert into employee values(101,'Avinash',50000);
insert into employee values(102,'Lokesh',60000);
insert into employee values(103,'Rakesh',70000);
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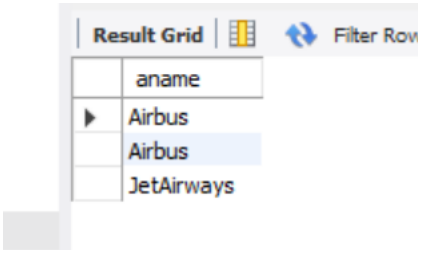
```
insert into employee values(104,'Santhosh',82000);
insert into employee values(105,'Tilak',5000);
insert into aircraft values(1,'Airbus',2000);
insert into aircraft values(2,'Boeing',700);
insert into aircraft values(3,'JetAirways',550);
insert into aircraft values(4,'Indigo',5000);
insert into aircraft values(5,'Boeing',4500);
insert into aircraft values(6,'Airbus',2200);
insert into certified values(101,2);
insert into certified values(101,4);
insert into certified values(101,5);
insert into certified values(101,6);
insert into certified values(102,1);
insert into certified values(102,3);
insert into certified values(102,5);
insert into certified values(103,2);
insert into certified values(103,3);
insert into certified values(103,5);
insert into certified values(103,6);
insert into certified values(104,6);
insert into certified values(104,1);
insert into certified values(104,3);
insert into certified values(105,3);
insert into flights values(1,'Bangalore','New Delhi',500,'06:00','09:00',5000);
insert into flights values(2,'Bangalore','Chennai',300,'07:00','08:30',3000);
insert into flights values(3,'Trivandrum','New Delhi',800,'08:00','11:30',6000);
insert into flights values(4,'Bangalore','Frankfurt',10000,'06:00','23:30',50000);
insert into flights values(5,'Kolkata','New Delhi',2400,'11:00','03:30',9000);
insert into flights values(6,'Bangalore','Frankfurt',8000,'09:00','23:00',40000);
```

Week-8-QUERIES

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

SQL>

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



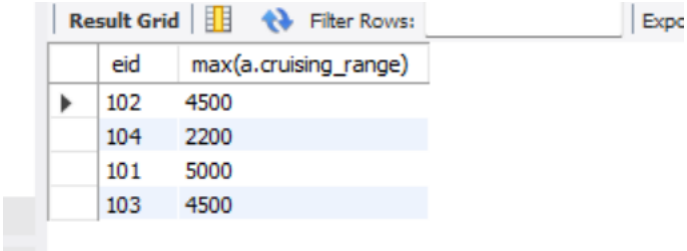
Result Grid | Filter Rov

aname
Airbus
Airbus
JetAirways

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

SQL>

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



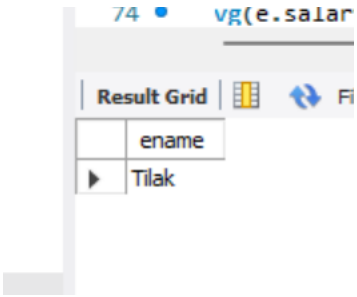
Result Grid | Filter Rows: | Expo

eid	max(a.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.

SQL>

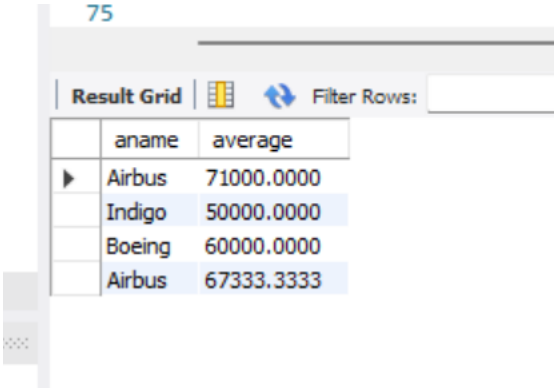
select e.ename from employee e where e.salary<(select min(price) from flights where from_place='Bangalore' and to_place='Frankfurt');



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**.

SQL>

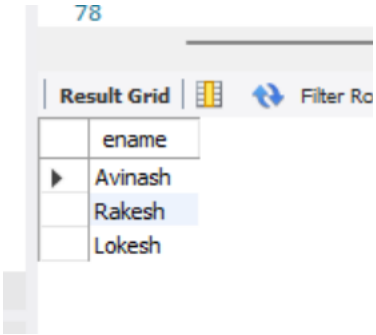
select a.aname, avg(e.salary) as average from certified c inner join aircraft a on c.aid=a.aid and a.cruising_range>1000 inner join employee e on e.eid=c.eid group by c.aid;



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

SQL>

select distinct(e.ename) from aircraft a, employee e, certified c where c.eid=e.eid and a.aid=c.aid and a.aname='Boeing';



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

SQL>

select a.aid from aircraft a ,flights f where from_place='Bangalore' and to_place='New Delhi' and a.cruising_range>f.distance;