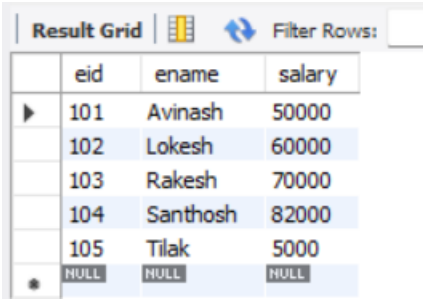
WEEK 8

AIRLINE FLIGHT DATABASE

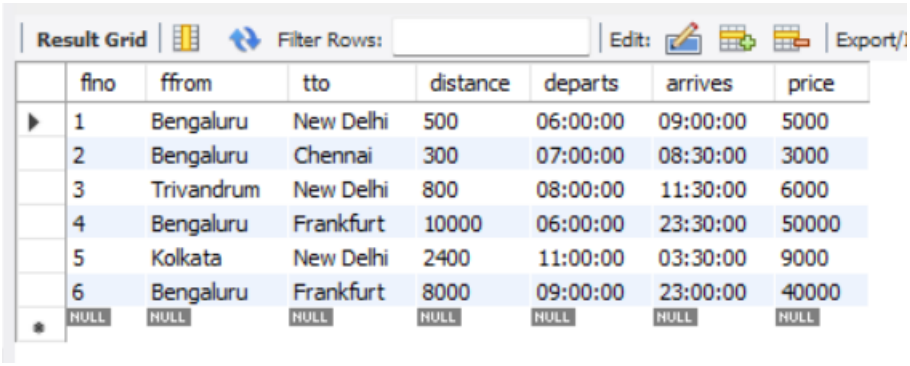
```
create database AirlineFlight;
use AirlineFlight;

create table flight
(flno int,
ffrom varchar(20),
tto varchar(20),
distance int,
departs time,
arrives time,
price real,
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 real,
primary key(eid));
```

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


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


insert into employee values
(101,'Avinash',50000),(102,'Lokesh',60000),(103,'Rakesh',70000),(104,'Santhosh',82000),(10
5,'Tilak',5000);


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


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);


select * from Employee;
```



	eid	ename	salary
▶	101	Avinash	50000
	102	Lokesh	60000
	103	Rakesh	70000
	104	Santhosh	82000
	105	Tilak	5000
*	NULL	NULL	NULL

select * from Flight;



Result Grid | Filter Rows: | Edit: | Export/

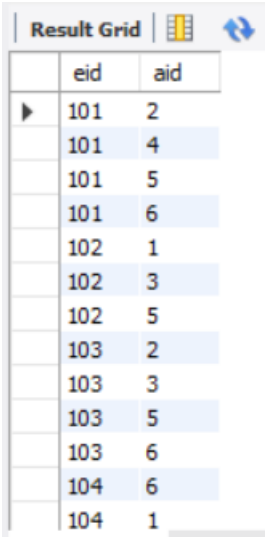
flno	ffrom	tto	distance	departs	arrives	price
1	Bengaluru	New Delhi	500	06:00:00	09:00:00	5000
2	Bengaluru	Chennai	300	07:00:00	08:30:00	3000
3	Trivandrum	New Delhi	800	08:00:00	11:30:00	6000
4	Bengaluru	Frankfurt	10000	06:00:00	23:30:00	50000
5	Kolkata	New Delhi	2400	11:00:00	03:30:00	9000
6	Bengaluru	Frankfurt	8000	09:00:00	23:00:00	40000
NULL	NULL	NULL	NULL	NULL	NULL	NULL

select * from aircraft;

Result Grid | Filter Rows:

aid	aname	cruising_range
1	Airbus	2000
2	Boeing	700
3	JetAirways	550
4	Indigo	5000
5	Boeing	4500
6	Airbus	2200
NULL	NULL	NULL

select * from certified;



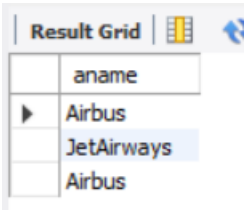
Result Grid |

eid	aid
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

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

select aname from aircraft

where aid IN(select aid from certified where eid IN(select eid from employee where salary>80000));



Result Grid

aname
Airbus
JetAirways
Airbus

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

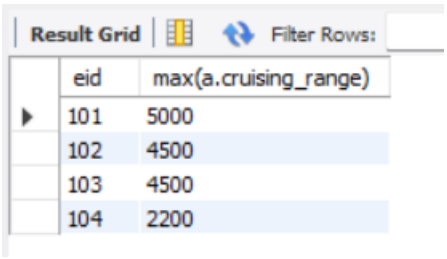
select e.eid, max(a.cruising_range)

from employee e, aircraft a, certified c

where c.eid=e.eid and c.aid=a.aid

group by e.eid

having count(e.eid)>=3;



Result Grid Filter Rows:

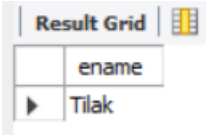
eid	max(a.cruising_range)
101	5000
102	4500
103	4500
104	2200

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 salary <(select min(price) from flight where ffrom='Bengaluru' and tto='Frankfurt');



Result Grid

ename
Tilak

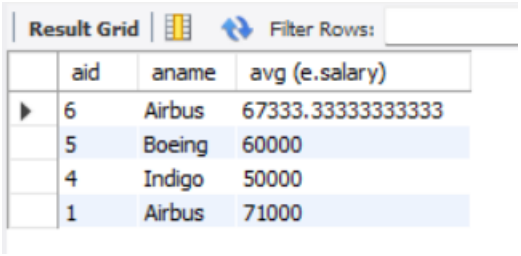
4. **For all aircraft with cruising range over 1000 Kms, find the name of the aircraft and the average salary of all pilots certified for this aircraft.**

select a.aid,a.aname ,avg (e.salary) from aircraft a, employee e ,certified c

where a.aid=c.aid and e.eid=c.eid and a.cruising_range>1000

group by c.aid

order by a.aid desc;



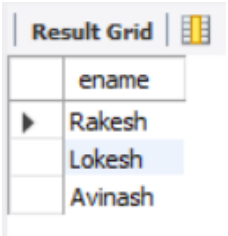
Result Grid | Filter Rows:

aid	aname	avg (e.salary)
6	Airbus	67333.33333333333
5	Boeing	60000
4	Indigo	50000
1	Airbus	71000

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

select ename from employee

where eid IN(select eid from certified where aid IN(select aid from Aircraft where aname='Boeing')) order by ename desc;



Result Grid

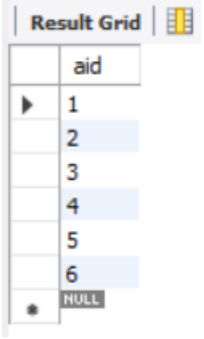
ename
Rakesh
Lokesh
Avinash

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

select aid from aircraft

where cruising_range>(select distance from Flight

where ffrom='Bengaluru' and tto='New Delhi');



Result Grid

aid
1
2
3
4
5
6
NULL