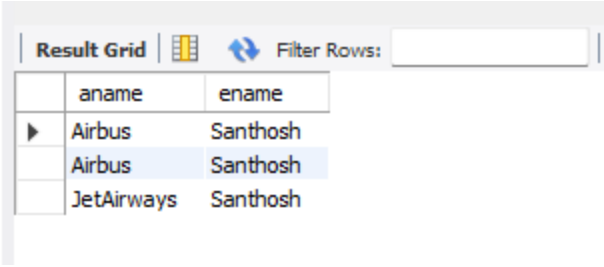
WEEK-8

```
create database airline_flight;
use airline_flight;

create table employees
(
eid int primary key,
ename varchar(20),
salary int
);

insert into employees values
(101,'Avinash',50000),(102,'Lokesh',60000),(103,'Rakesh',70000),(104,'San
thosh',82000),(105,'Tilak',5000);
select * from employees;

create table aircraft
(
aid int primary key,
aname varchar(20),
cruising_range int
);

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

create table certified
(
eid int,
aid int,
foreign key(eid) references employees(eid) on delete cascade on update
cascade,
```

```
foreign key(aid) references aircraft(aid) on delete cascade on update
cascade
);

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 certified;

create table flights
(
flno int primary key,
_from varchar(20),
_to varchar(20),
distance int,
departs time,
arrives time,
price int
);

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

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

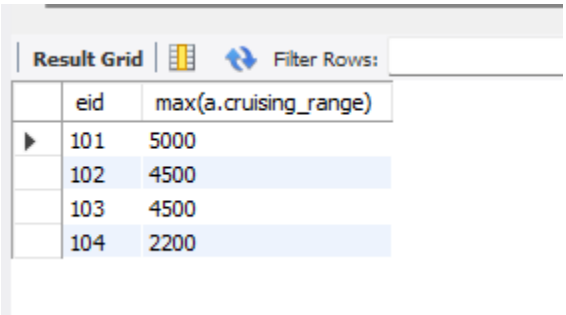
```
select a.aname,e.ename
 from aircraft a,certified c,employees e
where a.aid=c.aid and c.eid=e.eid and c.eid in (select eid from employees
where salary>80000);
```



aname	ename
Airbus	Santhosh
Airbus	Santhosh
JetAirways	Santhosh

-- #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 employees e,aircraft a,certified c
where e.eid=c.eid and c.aid=a.aid
group by e.eid
having count(c.aid)>=3
order by e.eid asc;
```

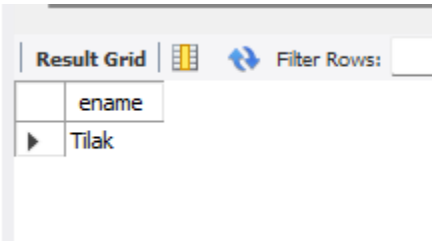


eid	max(a.cruising_range)
101	5000
102	4500
103	4500
104	2200

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

```
select ename
 from employees
 where salary<(select min(price)
 from flights
```

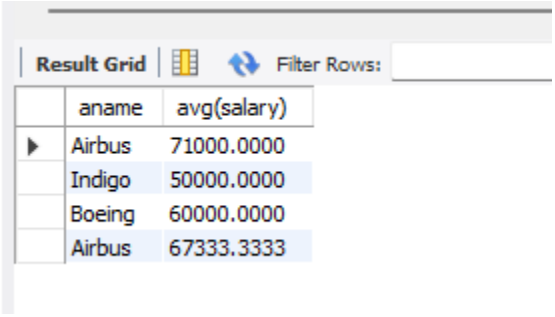
where _from='Bengaluru' and _to='Frankfurt');



ename
Tilak

-- #4For 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.

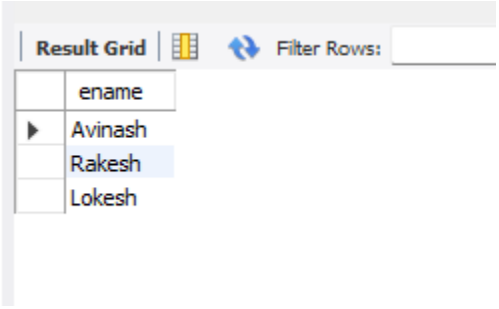
```
select aname,avg(salary) from employees e, certified c, aircraft a
 where a.aid=c.aid and e.eid=c.eid and a.cruising_range>1000
group by a.aid;
```



aname	avg(salary)
Airbus	71000.0000
Indigo	50000.0000
Boeing	60000.0000
Airbus	67333.3333

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

```
select distinct ename
from employees e,certified c,aircraft a
 where a.aid =c.aid and e.eid=c.eid and aname='boeing';
```



ename
Avinash
Rakesh
Lokesh

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

.

select aid from aircraft where cruising_range > all(select distance from flights where _from='Bengaluru' and _to='Delhi');