WEEK 8

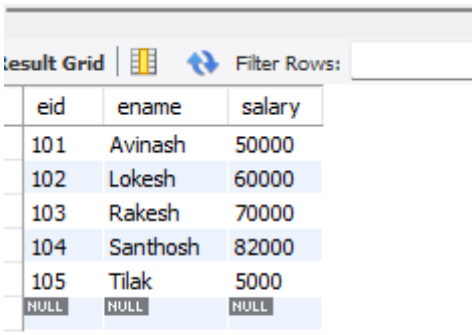
Creation of tables

```
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
);
```

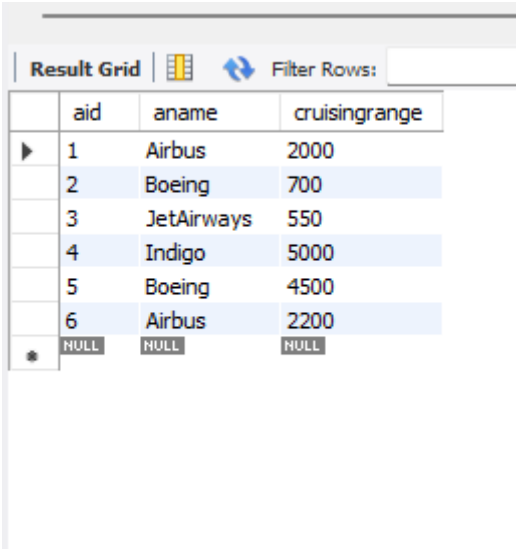
Insertion of values

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



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

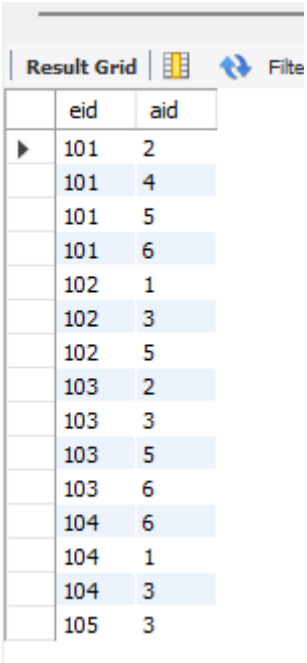
```
insert into aircraft values(1,'Airbus',2000);
insert into aircraft values(2,'Boeing',700);
insert into aircraft values(3,'JetAirways',550);
insert into aircraft values(4,'Indigo',5000);
insert into aircraft values(5,'Boeing',4500);
insert into aircraft values(6,'Airbus',2200);
select * from aircraft;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



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

```
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);
```

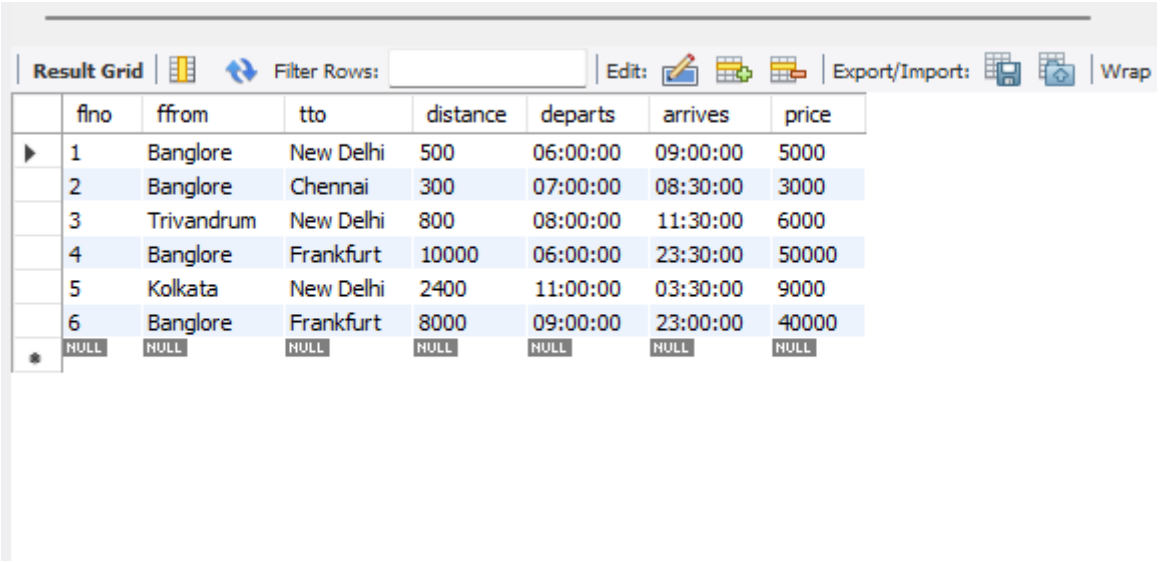
```
insert into certified values(103,5);
insert into certified values(103,6);
insert into certified values(104,6);
insert into certified values(104,1);
insert into certified values(104,3);
insert into certified values(105,3);
select * from certified;
```



Result Grid | Filte

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
104	3
105	3

```
insert into flights values(1,'Banglore','New Delhi',500,'6:00','9:00',5000);
insert into flights values(2,'Banglore','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,'Banglore','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,'Banglore','Frankfurt',8000,'9:00','23:00',40000);
select * from flights;
```



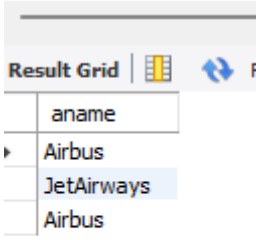
Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap

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

QUERIES

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 certified c
where c.eid in(select e.eid from employee e where salary>80000));
```

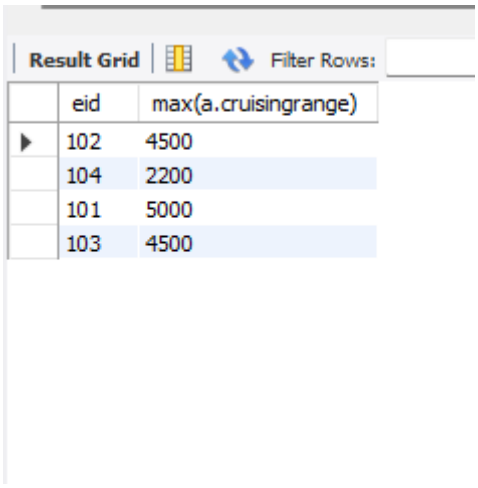


Result Grid

aname
Airbus
JetAirways
Airbus

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

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

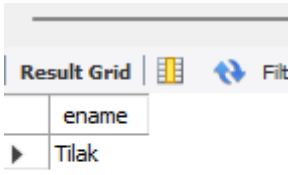


Result Grid | Filter Rows:

eid	max(a.cruisingrange)
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(f.price) from flights f
where f.ffrom='Banglore' and f.tto='Frankfurt');
```



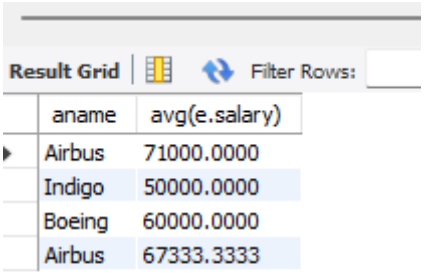
Result Grid | Filt

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.aname,avg(e.salary)
```

from aircraft a,employee e,certified c
where a.aid=c.aid and e.eid=c.eid and a.cruisingrange>1000 group by c.aid;

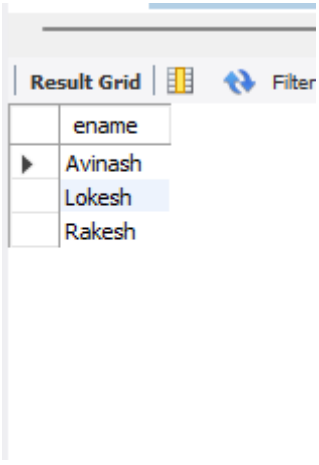


Result Grid | Filter Rows:

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

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

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



Result Grid | Filter

ename
Avinash
Lokesh
Rakesh

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

select aid from aircraft where cruisingrange > ALL (select distance from flights where ffrom = 'Bangalore' AND tto='New Delhi');