

## 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);
```

Result Grid			Filter Rows:
	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.**

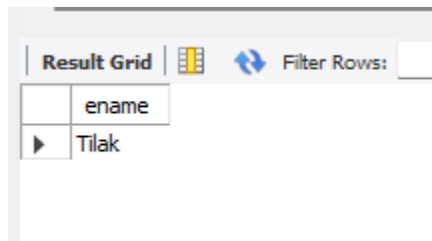
```
select e.eid,max(a.cruising_range)
from employees e,aircraft a,certified c
where e.eid=c.eid and c.aid=a.aid
group by e.eid
having count(c.aid)>=3
order by e.eid asc;
```

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

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

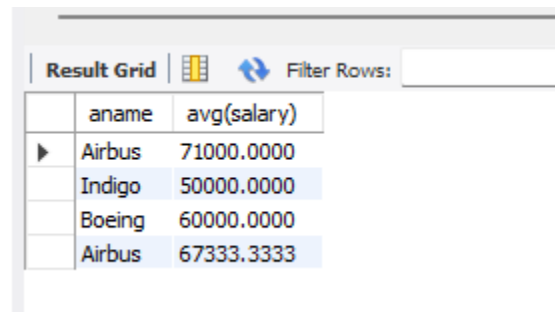


The screenshot shows a database interface with a 'Result Grid' tab. It contains a single row with the column 'ename' and the value 'Tilak'.

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 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;

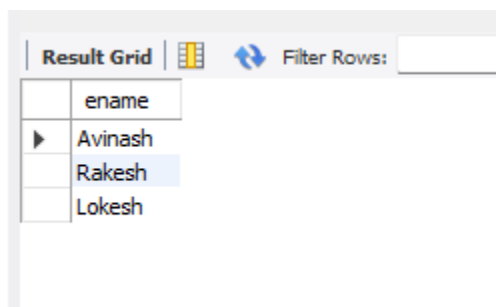


The screenshot shows a database interface with a 'Result Grid' tab. It displays a table with two columns: 'aname' and 'avg(salary)'. The data rows are: Airbus (71000.0000), Indigo (50000.0000), Boeing (60000.0000), and Airbus (67333.3333).

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

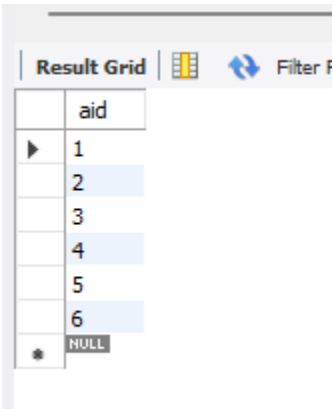


The screenshot shows a database interface with a 'Result Grid' tab. It displays a table with a single column 'ename'. The data rows are: Avinash, Rakesh, and Lokesh.

ename
Avinash
Rakesh
Lokesh

-- #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 > all(select distance from flights where \_from='Bengaluru' and \_to='Delhi');



The screenshot shows a database query result grid. At the top, there is a header bar with the text "Result Grid" and a "Filter" button. Below this, the table has a single column labeled "aid". The rows contain the values 1, 2, 3, 4, 5, 6, and NULL. The rows with values 1 through 6 are highlighted in light blue. A small asterisk icon is visible in the bottom-left corner of the table area.

aid
1
2
3
4
5
6
NULL