

Swastik\_week8\_dbms

```
create database airlineflight;  
use airlineflight;
```

```
create table FLIGHT(  
  flno int(5),  
  ffrom varchar(20),  
  tto varchar(20),  
  distance int(10),  
  departs time,  
  arrives time,  
  price int(10),  
  primary key(flno));
```

```
create table AIRCRAFT(  
  aid int(10),  
  aname varchar(20),  
  cruising_range int(10),  
  primary key(aid));
```

```
create table EMPLOYEE(  
  eid int(10),  
  ename varchar(20),  
  salary int(10),  
  primary key(eid)  
);
```

```
create table CERTIFIED(  
  eid int(10),  
  aid int(10),  
  foreign key(aid) references AIRCRAFT(aid),  
  foreign key(eid) references EMPLOYEE(eid));
```

```
insert into FLIGHT values(1,'bengaluru','newdelhi',500,'6:00','9:00',5000),  
(2,'bengaluru','chennai',300,'7:00','8:30',3000),  
(3,'trivandrum','newdelhi',800,'8:00','11:30',6000),  
(4,'bengaluru','frankfurt',10000,'6:00','23:30',50000),  
(5,'kolkata','newdelhi',2400,'11:00','3:30',9000),  
(6,'bengaluru','frankfurt',8000,'9:00','23:00',40000);
```

```
insert into AIRCRAFT values  
(1,'airbus',2000),(2,'boeing',700),  
(3,'jetairways',550),(4,'indigo',5000),
```

```
(5,'boeing',4500),(6,'airbus',2200);
```

insert into EMPLOYEE values

```
(101,'avinash',50000),  
(102,'lokesh',60000),  
(103,'rakesh',70000),  
(104,'santosh',82000),  
(105,'tilak',5000);
```

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);
```

alter table CERTIFIED

add constraint

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

alter table CERTIFIED

add constraint

foreign key(eid) references EMPLOYEE(eid) on update cascade on delete cascade;

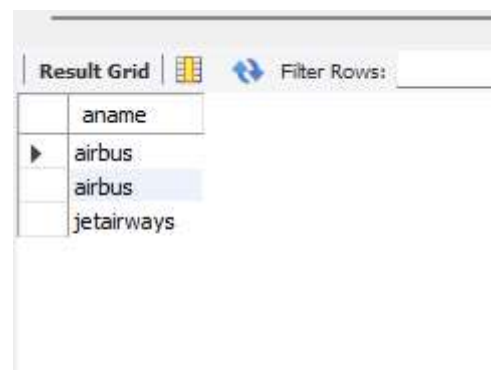
**i. Find the names of aircraft such that all pilots certified to operate them have salaries more than**

**Rs.80,000.**

select a.aname

from AIRCRAFT a,certified c,employee e

where a.aid=c.aid and c.eid=e.eid and e.salary > 80000;



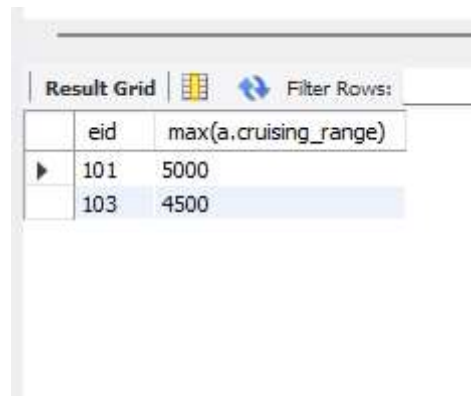
The screenshot shows a database query result grid. At the top, there is a header bar with 'Result Grid' and a 'Filter Rows:' input field. Below the header, there is a table with one column labeled 'aname'. The table contains three rows: 'airbus', 'airbus', and 'jetairways'. The second row is highlighted with a blue background.

aname
airbus
airbus
jetairways

ii. For each pilot who is certified for more than three aircraft, find the eid and the maximum

cruisingrange of the aircraft for which she or he is certified.

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

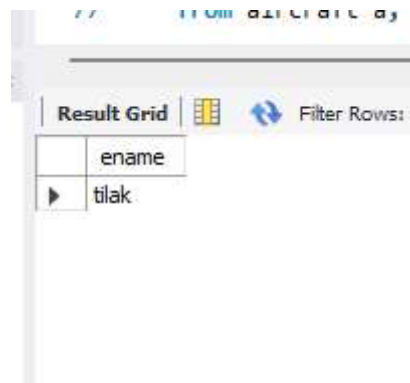


The screenshot shows a 'Result Grid' window with two columns: 'eid' and 'max(a.cruising\_range)'. The first row contains the values '101' and '5000'. The second row contains the values '103' and '4500'.

	eid	max(a.cruising_range)
▶	101	5000
	103	4500

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

```
select ename from employee
where salary<(select min(price) from flight
              where ffrom='bengaluru'and tto='frankfurt');
```

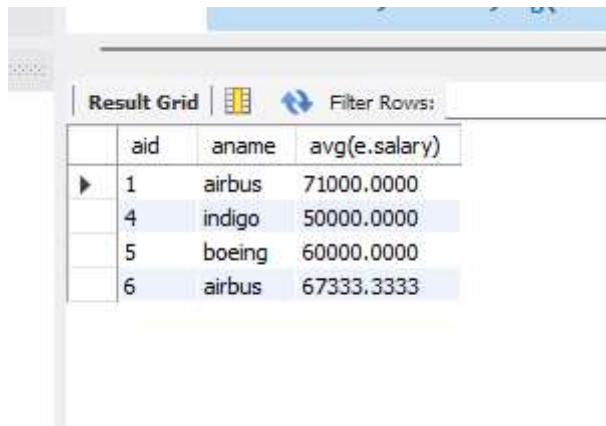


The screenshot shows a 'Result Grid' window with one column: 'ename'. The first row contains the value 'tilak'.

	ename
▶	tilak

iv. For all aircraft with cruising range over 1000 Kms, find the name,id 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, certified c,employee e
where a.aid=c.aid and c.eid= e.eid and a.cruising_range>1000
group by a.aid;
```

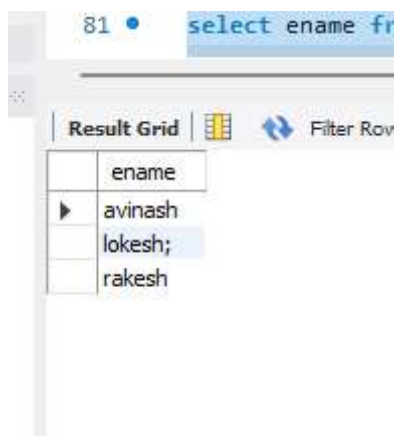


The screenshot shows a database query result grid with the following data:

	aid	aname	avg(e.salary)
▶	1	airbus	71000.0000
	4	indigo	50000.0000
	5	boeing	60000.0000
	6	airbus	67333.3333

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

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

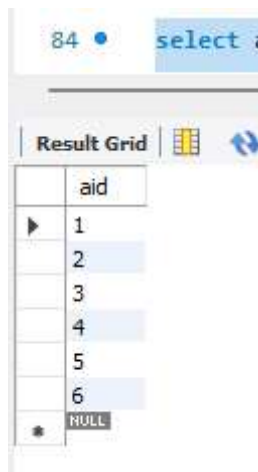


The screenshot shows a database query result grid with the following data:

	ename
▶	avinash
	lokesh;
	rakesh

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

```
select a.aid
from aircraft a
where a.cruising_range > (select distance
                        from flight where ffrom='bengaluru' and tto='newdelhi');
```



The screenshot shows a database query result grid. At the top, there is a text input field containing the SQL query: `select a.aid`. Below the input field, there is a tab labeled "Result Grid" with a grid icon and a refresh icon. The grid itself has a single column header "aid". The data rows are numbered 1 through 6, with the values 1, 2, 4, and 6 displayed. Row 6 is highlighted in blue. Below the grid, there is a "NULL" row with a star icon to its left.

	aid
1	1
2	2
3	3
4	4
5	5
6	6
*	NULL