**Week 8, Airlines Database**

**Zayd Ahmed**

**create database Airlines;**

**use Airlines;**

**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);**

**insert into employee values**

**(101,'Avinash',50000),**

**(102,'Lokesh',60000),**

**(103,'Rakesh',70000),**

**(104,'Santhosh',82000),**

**(105,'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);**

**insert into flights values**

**(1,'Banglore','New Delhi',500,'6:00','9:00',5000),**

**(2,'Banglore','Chennai',300,'7:00','8:30',3000),**

**(3,'Trivandrum','New Delhi',800,'8:00','11:30',6000),**

**(4,'Banglore','Frankfurt',10000,'6:00','23:30',50000),**

**(5,'Kolkata','New Delhi',2400,'11:00','3:30',9000),**

**(6,'Banglore','Frankfurt',8000,'9:00','23:00',40000);**

**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,certified c,employee e

WHERE a.aid=c.aid

AND c.eid=e.eid

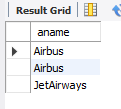
AND NOT EXISTS

(SELECT \*

FROM employee e1

WHERE e1.eid=e.eid

AND e1.salary<80000);



**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.**

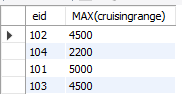
SELECT c.eid,MAX(cruisingrange)

FROM certified c,aircraft a

WHERE c.aid=a.aid

GROUP BY c.eid

HAVING COUNT(\*)>2;



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

SELECT DISTINCT e.ename

FROM employee e

WHERE e.salary<

(SELECT MIN(f.price)

FROM flights f

WHERE f.ffrom='Banglore'

AND f.tto='Frankfurt');

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**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.**

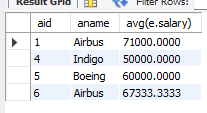
select a.aid, a.aname,avg(e.salary)

from aircraft a, employee e, certified c

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

and a.cruisingrange>1000

group by a.aid, a.aname;



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

SELECT distinct e.ename

FROM employee e,aircraft a,certified c

WHERE e.eid=c.eid

AND c.aid=a.aid

AND a.aname='Boeing';



**6. 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.cruisingrange>

(SELECT MIN(f.distance)

FROM flights f

WHERE f.ffrom='Banglore'

AND f.tto='New Delhi');

