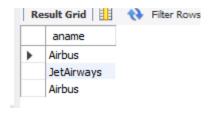
## WEEK 8

```
create database airline_flight;
use airline_flight;
create table FLIGHTS(flno int, departs_from varchar(50), arrives_to varchar(30), distance int,
departs time, arrives time, price int, primary key (flno));
INSERT INTO FLIGHTS VALUES (1,'Bengaluru','New Delhi',500,'6:00','9:00',50000);
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);
create table Aircraft (aid int, aname varchar(50), cruising_range int, primary key (aid));
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);
create table certified (aid int, eID varchar(50), primary key (aid, eID),
foreign key (aid) REFERENCES Aircraft (aid), foreign key (eID) REFERENCES EMPLOYEE
(eID));
create table certified (eID int, aid INT, primary key (eID, aid),
foreign key (eID) REFERENCES EMPLOYEE (eID), foreign key (aid) REFERENCES Aircraft
(aid));
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);
create table EMPLOYEE (eID int, ename varchar(20), salary real,
primary key (eID));
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);
```

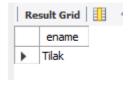
• Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.

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);



• 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.departs\_from='Bengaluru'
AND f.arrives\_to='Frankfurt');



• 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(cruising\_range)
FROM certified c,Aircraft a
WHERE c.aid=a.aid
GROUP BY c.eid
HAVING COUNT(\*)>2;



• 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)

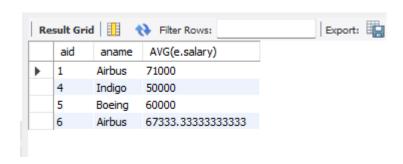
FROM Aircraft a, certified c, EMPLOYEE e

WHERE a.aid=c.aid

AND c.eID=e.eID

AND a.cruising\_range>1000

GROUP BY a.aid, a.aname;



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

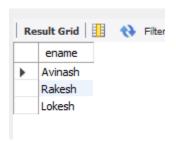
SELECT distinct e.ename

FROM EMPLOYEE e, Aircraft a, certified c

WHERE e.eID=c.eID

AND c.aid=a.aid

AND a.aname='Boeing';



• 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 MIN(f.distance)

FROM FLIGHTS f

WHERE f.departs\_from='Bengaluru' AND f.arrives\_to='new delhi');

