Create database airline;

use airline;

CREATE TABLE FLIGHTS

(FLNO INTEGER PRIMARY KEY,

FFROM VARCHAR(15) NOT NULL,

TTO VARCHAR(15) NOT NULL,

DISTANCE INTEGER,

DEPARTS TIMESTAMP,

ARRIVES TIMESTAMP,

PRICE FLOAT(10,2));

use airline;

CREATE TABLE AIRCRAFT

(AID INTEGER PRIMARY KEY,

ANAME VARCHAR(10),

CRUISINGRANGE INTEGER);

use airline;

CREATE TABLE EMPLOYEES

(EID INTEGER PRIMARY KEY,

ENAME VARCHAR(15),

SALARY FLOAT(10,2));

use airline;

CREATE TABLE CERTIFIED

(EID INTEGER NOT NULL,

AID INTEGER NOT NULL,

PRIMARY KEY (EID, AID),

FOREIGN KEY (EID) REFERENCES EMPLOYEES (EID),

FOREIGN KEY (AID) REFERENCES AIRCRAFT (AID));

USE airline;

insert into AIRCRAFT values(101,'747',3000);

insert into AIRCRAFT values(102,'Boeing',900);

insert into AIRCRAFT values(103,'647',800);

insert into AIRCRAFT values(104,'Dreamliner',10000);

insert into AIRCRAFT values(105,'Boeing',3500);

insert into AIRCRAFT values(106,'707',1500);

insert into AIRCRAFT values(107,'Dream', 120000);

USE airline;

insert into EMPLOYEES values(701,'A',50000);

insert into EMPLOYEES values(702,'B',100000);

insert into EMPLOYEES values(703,'C',150000);

insert into EMPLOYEES values(704,'D',90000);

insert into EMPLOYEES values(705,'E',40000);

insert into EMPLOYEES values(706,'F',60000);

insert into EMPLOYEES values(707,'G',90000);

USE airline;

insert into CERTIFIED values(701,101);

insert into CERTIFIED values(701,102);

insert into CERTIFIED values(701,106);

insert into CERTIFIED values(701,105);

insert into CERTIFIED values(702,104);

insert into CERTIFIED values(703,104);

insert into CERTIFIED values(704,104);

insert into CERTIFIED values(702,107);

insert into CERTIFIED values(703,107);

insert into CERTIFIED values(704,107);

insert into CERTIFIED values(702,101);

insert into CERTIFIED values(703,105);

insert into CERTIFIED values(704,105);

insert into CERTIFIED values(705,103);

USE airline;

insert into FLIGHTS values(101,'Bangalore','Delhi',2500,TIMESTAMP '2005-05-13 07:15:31',TIMESTAMP '2005-05-13 17:15:31',5000);

insert into FLIGHTS values(102,'Bangalore','Lucknow',3000,TIMESTAMP '2005-05-13 07:15:31',TIMESTAMP '2005-05-13 11:15:31',6000);

insert into FLIGHTS values(103,'Lucknow','Delhi',500,TIMESTAMP '2005-05-13 12:15:31',TIMESTAMP ' 2005-05-13 17:15:31',3000);

insert into FLIGHTS values(107,'Bangalore','Frankfurt',8000,TIMESTAMP '2005-05-13 07:15:31',TIMESTAMP '2005-05-13 22:15:31',60000);

insert into FLIGHTS values(104,'Bangalore','Frankfurt',8500,TIMESTAMP '2005-05-13 07:15:31',TIMESTAMP '2005-05-13 23:15:31',75000);

insert into FLIGHTS values(105,'Kolkata','Delhi',3400,TIMESTAMP '2005-05-13 07:15:31',TIMESTAMP '2005-05-13 09:15:31',7000);

1)use airline;

SELECT DISTINCT A.aname

FROM AIRCRAFT A

WHERE A.Aid IN (SELECT C.aid

FROM CERTIFIED C, EMPLOYEES E

WHERE C.eid = E.eid AND

NOT EXISTS ( SELECT \*

FROM EMPLOYEES E1

WHERE E1.eid = E.eid AND E1.salary <80000 ));

2)use airline;

SELECT C.eid, MAX(A.cruisingrange)

FROM CERTIFIED C, AIRCRAFT A

WHERE C.aid = A.aid

GROUP BY C.eid

HAVING COUNT(\*)>3;

3)use airline;

SELECT DISTINCT E.ename

FROM EMPLOYEES E

WHERE E.salary <( SELECT MIN(F.price)

FROM FLIGHTS F

WHERE F.ffrom = 'Bangalore' AND F.tto = 'Frankfurt' );

4)use airline;

SELECT Temp.name, Temp.AvgSalary

FROM ( SELECT A.aid, A.aname AS name, AVG (E.salary) AS AvgSalary

FROM AIRCRAFT A, CERTIFIED C, EMPLOYEE E

WHERE A.aid = C.aid AND C.eid = E.eid AND A.cruisingrange > 1000

GROUP BY A.aid, A.aname ) Temp;

5)use airline;

SELECT DISTINCT E.ename

FROM EMPLOYEE E, CERTIFIED C, AIRCRAFT A

WHERE E.eid = C.eid AND C.aid = A.aid AND A.aname LIKE 'Boeing%';

6)use airline;

SELECT A.aid

FROM AIRCRAFT A

WHERE A.cruisingrange >(SELECT MIN(F.DISTANCE)

FROM FLIGHTS F

WHERE F.FFROM = 'Bangalore' AND F.TTO = 'Frankfurt' );

7)use airline;

SELECT F.departs

FROM FLIGHTS F

WHERE F.flno IN ( ( SELECT F0.flno

FROM FLIGHTS F0

WHERE F0.ffrom = 'Bangalore' AND F0.tto = 'Delhi'

AND extract(hour from F0.arrives) < 18 )

UNION

( SELECT F0.flno

FROM FLIGHTS F0, FLIGHTS F1

WHERE F0.ffrom = 'Bangalore' AND F0.tto <> 'Delhi'

AND F0.tto = F1.ffrom AND F1.tto = 'Delhi'

AND F1.departs > F0.arrives

AND extract(hour from F1.arrives) < 18)

UNION

( SELECT F0.flno

FROM FLIGHTS F0, FLIGHTS F1, FLIGHTS F2

WHERE F0.ffrom = 'Bangalore'

AND F0.tto = F1.ffrom

AND F1.tto = F2.ffrom

AND F2.tto = 'Delhi'

AND F0.tto <> 'Delhi'

AND F1.tto <> 'Delhi'

AND F1.departs > F0.arrives

AND F2.departs > F1.arrives

AND extract(hour from F2.arrives) < 18));

8)use airline;

SELECT E.ename, E.salary

FROM EMPLOYEE E

WHERE E.eid NOT IN ( SELECT DISTINCT C.eid

FROM CERTIFIED C )

AND E.salary >( SELECT AVG(E1.salary)

FROM EMPLOYEE E1

WHERE E1.eid IN

( SELECT DISTINCT C1.eid

FROM CERTIFIED C1 ) );