SQL> CREATE TABLE AIRCRAFT(AID INT,

2 ANAME VARCHAR2(20),

3 CRUSINGRANGE INT,

4 CONSTRAINT AIR\_KEY

5 PRIMARY KEY(AID));

Table created.

SQL> CREATE TABLE FLIGHT(FLNO INT,

2 FROMM VARCHAR2(20),

3 TOO VARCHAR2(20),

4 DISTANCE INT,

5 DEPARTS TIMESTAMP,

6 ARRIVES TIMESTAMP,

7 PRICE INT,

8 AID INT,

9 CONSTRAINT FLI\_KEY

10 PRIMARY KEY(FLNO),

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

Table created.

SQL> CREATE TABLE EMPLOYEE(

2 EID INT,

3 ENAME VARCHAR2(20),

4 SALARY INT,

5 CONSTRAINT EMPL\_KEY

6 PRIMARY KEY(EID));

Table created.

SQL> CREATE TABLE CERTIFIED(

2 EID INT

3 ,AID INT,

4 CONSTRAINT CERTI\_KEY

5 FOREIGN KEY(EID) REFERENCES EMPLOYEE(EID),

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

Table created.

SQL> INSERT INTO AIRCRAFT VALUES(1,'BOEING',6500);

1 row created.

SQL> INSERT INTO FLIGHT VALUES(2,'LOSANGLES','CHICAGO',3500,

TIMESTAMP '2020-05-04 15:00:00 US/Pacific',

TIMESTAMP '2020-05-04 08:05:00 US/Pacific',24000,5);

1 row created.

SQL> INSERT INTO EMPLOYEE VALUES(1,'LAL',70000);

1 row created.

SQL> INSERT INTO CERTIFIED VALUES(25032001,5);

1 row created.

SQL> SELECT \* FROM AIRCRAFT;

AID ANAME CRUSINGRANGE

---------- -------------------- ------------

1 BOEING 6500

2 AUTOGYRO 7500

3 VINFIZ 10000

4 BOEING 8000

5 FLAKBAIT 8000

6 COSMIC\_RA 8900

6 rows selected.

SQL> SELECT \* FROM EMPLOYEE;

EID ENAME SALARY

---------- -------------------- ----------

1 LAL 70000

25 KUMAR 80000

2 JACK 75000

3 JIM 65000

4 KAMAL 55000

5 MANI 40000

25032001 AUMRUDH 100000

107 SAM 15000

19 APARAJIT 150000

9 rows selected.

SQL> SELECT \* FROM CERTIFIED;

EID AID

---------- ----------

1 2

1 5

2 5

2 3

25032001 3

25032001 5

25032001 1

25 1

25 2

25 4

25032001 4

EID AID

---------- ----------

25032001 2

19 2

19 5

14 rows selected.

SQL> SELECT \* FROM FLIGHT;

FLNO FROMM TOO DISTANCE DEPARTS

ARRIVES PRICE AID

------------------------------------------------------------------------------------------------------------------

1 MADISON CHICAGO 4500 06-MAY-20 12.00.00.000000 AM

07-MAY-20 12.05.00.000000 AM 20000 1

2 LOSANGLES CHICAGO 3500 04-MAY-20 03.00.00.000000 PM

04-MAY-20 08.05.00.000000 AM 24000 5

3 CHICAGO LOSANGLES 3504 05-APR-20 04.00.00.000000 PM

04-APR-20 06.05.00.000000 AM 24000 4

4 WASIGNTON LOSANGLES 4504 04-APR-20 06.00.00.000000 AM

05-APR-20 06.05.00.000000 AM 18400 2

//QUERIES

1)

SQL> SELECT DISTINCT ANAME FROM AIRCRAFT A ,CERTIFIED C,EMPLOYEE E

WHERE A.AID=C.AID AND C.EID=E.EID AND EXISTS

2 (SELECT \* FROM EMPLOYEE E1 WHERE E1.EID=E.EID AND E1.SALARY>80000);

ANAME

--------------------

FLAKBAIT

BOEING

VINFIZ

2)

SQL> SELECT E.EID ,MAX(A.CRUSINGRANGE) FROM EMPLOYEE E

,AIRCRAFT A ,CERTIFIED C WHERE A.AID=C.AID AND E.EID=C.EID

GROUP BY C.EID HAVING COUNT(\*)>3 ;

EID MAX(A.CRUSINGRANGE)

---------- -------------------

25032001 10000

3)

SQL> SELECT DISTINCT ENAME FROM EMPLOYEE WHERE SALARY <

2 (SELECT MIN(F.PRICE) FROM FLIGHT F WHERE

F.FROMM ='LOSANGLES' AND F.TOO='CHICAGO');

ENAME

--------------------

SAM

4)

SQL> SELECT A.ANAME , AVG(E.SALARY) FROM AIRCRAFT A,

EMPLOYEE E ,CERTIFIED C WHERE

2 A.AID=C.AID AND C.EID=E.EID

AND A.CRUSINGRANGE>1000 GROUP BY A.AID,A.ANAME;

ANAME AVG(E.SALARY)

-------------------- -------------

FLAKBAIT 81666.6667

AUTOGYRO 83333.3333

VINFIZ 87500

BOEING 90000

BOEING 90000

5)

SQL> SELECT DISTINCT E.ENAME FROM EMPLOYEE E ,

CERTIFIED C ,AIRCRAFT A WHERE E.EID=C.EID AND

A.AID=C.AID AND A.ANAME ='BOEING';

ENAME

--------------------

KUMAR

AUMRUDH

6)

SQL> SELECT AID FROM AIRCRAFT WHERE AID IN (

2 SELECT F.AID FROM FLIGHT F WHERE

F.FROMM='LOSANGLES' AND TOO='CHICAGO');

AID

----------

5

7)

SQL> SELECT F.FROMM,F.TOO FROM FLIGHT F WHERE EXISTS

2 (SELECT \* FROM EMPLOYEE WHERE SALARY>100000);

FROMM TOO

-------------------- --------------------

MADISON CHICAGO

LOSANGLES CHICAGO

CHICAGO LOSANGLES

WASIGNTON LOSANGLES

8)

SQL> SELECT ENAME FROM EMPLOYEE WHERE EID IN

2 (SELECT C.EID FROM CERTIFIED C WHERE C.AID IN

3 (SELECT AID FROM AIRCRAFT WHERE

CRUSINGRANGE>3000 AND ANAME<>'BOEING'));

ENAME

--------------------

LAL

KUMAR

JACK

AUMRUDH

APARAJIT

9)

SQL> SELECT F.FLNO,F.DEPARTS

2 FROM FLIGHT F

3 WHERE F.FLNO IN ((

4 SELECT F0.FLNO

5 FROM FLIGHT F0

6 WHERE F0.FROMM = 'MADISON' AND F0.TOO = 'NEWYORK'

7 AND (EXTRACT( HOUR FROM F0.ARRIVES ) || ':' ||EXTRACT(MINUTE FROM F0.ARRIVES ))<'18:00')

8 UNION

9 (SELECT F0.FLNO

10 FROM FLIGHT F0,FLIGHT F1

11 WHERE F0.FROMM='MADISON' AND F0.TOO<>'NEWYORK'

12 AND F0.TOO=F1.FROMM

13 AND F1.TOO='NEWYORK'

14 AND F1.DEPARTS>F0.ARRIVES

15 AND (EXTRACT( HOUR FROM F1.ARRIVES ) || ':' ||EXTRACT(MINUTE FROM F1.ARRIVES ))<'18:00')

16 UNION

17 (SELECT F0.FLNO

18 FROM FLIGHT F0,FLIGHT F1,FLIGHT F2 WHERE F0.FROMM='MADINSON'

19 AND F0.TOO=F1.FROMM

20 AND F1.TOO=F2.FROMM

21 AND F2.TOO='NEWYORK'

22 AND F0.TOO<>'NEWYORK'

23 AND F1.TOO<>'NEWYORK'

24 AND F1.DEPARTS>F0.ARRIVES

25 AND F2.DEPARTS>F1.ARRIVES

26 AND (EXTRACT( HOUR FROM F2.ARRIVES ) || ':' ||EXTRACT(MINUTE FROM F2.ARRIVES ))<'18:00'));

FLNO DEPARTS

---------------------------------------------------------------------------

1

06-MAY-20 12.00.00.000000 AM

10)

SQL> SELECT AU-P FROM

2 (SELECT AVG(E.SALARY) AS AU FROM EMPLOYEE E

3 WHERE E.EID IN

4 (SELECT DISTINCT C.EID FROM CERTIFIED C )) ,

5 (SELECT AVG(E1.SALARY) AS P FROM EMPLOYEE E1);

AU-P

----------

22777.7778

11)

SQL> SELECT E.ENAME , E.SALARY FROM EMPLOYEE E

WHERE E.EID NOT IN (SELECT C.EID FROM

CERTIFIED C ,EMPLOYEE E1 WHERE E1.SALARY>

2 (SELECT AVG(SALARY) FROM EMPLOYEE WHERE EID IN

3 (SELECT EID FROM CERTIFIED)));

ENAME SALARY

-------------------- ----------

JIM 65000

KAMAL 55000

MANI 40000

SAM 15000

12)

SQL> SELECT ENAME FROM EMPLOYEE WHERE EID IN

2 (SELECT C.EID FROM CERTIFIED C WHERE C.AID IN

3 (SELECT A.AID FROM AIRCRAFT A WHERE A.CRUSINGRANGE>1000));

ENAME

--------------------

LAL

JACK

APARAJIT

KUMAR

AUMRUDH

13)

SQL> SELECT E.ENAME FROM EMPLOYEE E ,AIRCRAFT A ,

CERTIFIED C WHERE E.EID=C.EID AND C.AID=A.AID

2 AND A.CRUSINGRANGE>1000 GROUP BY ENAME HAVING COUNT(\*)>2;

ENAME

--------------------

KUMAR

AUMRUDH

14)

SQL> SELECT ENAME FROM EMPLOYEE WHERE EID IN

2 (SELECT C.EID FROM CERTIFIED C WHERE C.AID IN

3 (SELECT A.AID FROM AIRCRAFT A WHERE

A.CRUSINGRANGE>1000 AND A.ANAME='BOEING'));

ENAME

--------------------

KUMAR

AUMRUDH