//QUERY BY AUMRUDH LAL KUMAR TJ

//DML COMMANDS

SQL> CREATE TABLE STUDENT(

2 SNUM INT,

3 SNAME VARCHAR2(20) NOT NULL,

4 MAJOUR VARCHAR2(20),

5 LEVELL VARCHAR2(2),

6 CONSTRAINT STUDENT\_KEY

7 PRIMARY KEY(SNUM) );

Table created.

SQL> CREATE TABLE FACULTY(

2 FID INT,

3 FNAME VARCHAR2(10) NOT NULL,

4 DEPID VARCHAR(10),

5 CONSTRAINT FACULTY\_KEY

6 PRIMARY KEY(FID) );

Table created.

SQL> CREATE TABLE CLASS(

2 CNAME VARCHAR2(20),

3 MEET\_AT DATE,

4 ROOM VARCHAR2(10),

5 FNAME VARCHAR2(20),

6 CONSTRAINT CLASS\_KEY

7 PRIMARY KEY(CNAME),

8 FOREIGN KEY(FNAME) REFERENCES FACULTY (FNAME) );

Table created.

SQL> CREATE TABLE ENROLLED(

2 SNUM INT,

3 CNAME VARCHAR(20),

4 CONSTRAINT ENROLLED\_KEY

5 FOREIGN KEY (SNUM)REFERENCES STUDENT (SNUM),

6 FOREIGN KEY (CNAME)REFERENCES CLASS (CNAME));

Table created.

SQL> ALTER TABLE STUDENT ADD AGE INT;

Table altered.

SQL> INSERT INTO STUDENT VALUES(1,'LAL','HISTORY','SR',18);

1 row created.

SQL> INSERT INTO STUDENT VALUES(2,'KUMAR','HISTORY','JR',18);

1 row created.

SQL> INSERT INTO STUDENT VALUES(3,'KARAN','SCIENCE','JR',19);

1 row created.

SQL> INSERT INTO STUDENT VALUES(5,'JOHN','SCIENCE','SR',22);

1 row created.

SQL> DESC STUDENT

Name Null? Type

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

SNUM NOT NULL NUMBER(38)

SNAME NOT NULL VARCHAR2(20)

MAJOUR VARCHAR2(20)

LEVELL VARCHAR2(2)

AGE NUMBER(38)

SQL> SELECT \* FROM STUDENT ;

SNUM SNAME MAJOUR LE AGE

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

1 LAL HISTORY SR 18

2 KUMAR HISTORY JR 18

3 KARAN SCIENCE JR 19

5 JOHN SCIENCE SR 22

SQL> INSERT INTO FACULTY VALUES(25,'RAM','IT');

1 row created.

SQL> INSERT INTO FACULTY VALUES(41,'SAM','IT');

1 row created.

SQL> INSERT INTO FACULTY VALUES(11,'JACK','CSE');

1 row created.

SQL> INSERT INTO FACULTY VALUES(5,'JIM','MECH');

1 row created.

SQL> INSERT INTO FACULTY VALUES(13,'MARKWOOD','ECE');

1 row created.

SQL> INSERT INTO FACULTY VALUES(34,'AUMRUDH','EEE');

1 row created.

SQL> DESC FACULTY

Name Null? Type

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

FID NOT NULL NUMBER(38)

FNAME NOT NULL VARCHAR2(10)

DEPID VARCHAR2(10)

SQL> SELECT \* FROM FACULTY

2 ;

FID FNAME DEPID

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

25 RAM IT

41 SAM IT

11 JACK CSE

5 JIM MECH

13 MARKWOOD ECE

34 AUMRUDH EEE

6 rows selected.

SQL> DESC CLASS;

Name Null? Type

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

CNAME NOT NULL VARCHAR2(20)

MEET\_AT DATE

ROOM VARCHAR2(10)

FNAME VARCHAR2(20)

SQL> alter session set nls\_date\_format = 'dd/MON/yyyy';

Session altered.

SQL> INSERT INTO CLASS VALUES('DS','15/JAN/2020','R128','RAM');

1 row created.

SQL> INSERT INTO CLASS VALUES('OS','14/JAN/2020','R18','RAM');

1 row created.

SQL> INSERT INTO CLASS VALUES('DPSD','20/JAN/2020','R128','SAM');

1 row created.

SQL> INSERT INTO CLASS VALUES('AAD','20/JAN/2020','R128','AUMRUDH');

1 row created.

SQL> SELECT \* FROM FACULTY

2 ;

FID FNAME DEPID

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

25 RAM IT

41 SAM IT

11 JACK CSE

5 JIM MECH

13 MARKWOOD ECE

34 AUMRUDH EEE

6 rows selected.

SQL> INSERT INTO CLASS VALUES('JAVA','25/JAN/2020','R25','AUMRUDH');

1 row created.

SQL> INSERT INTO CLASS VALUES('CAO','24/JAN/2020','R128','JACK');

1 row created.

SQL> INSERT INTO CLASS VALUES('DBMS','22/JAN/2020','R128','JIM');

1 row created.

SQL> INSERT INTO CLASS VALUES('MP','21/JAN/2020','R128','MARKWOOD');

1 row created.

SQL> INSERT INTO CLASS VALUES('APTITUDE','22/JAN/2020','R18','MARKWOOD');

1 row created.

SQL> INSERT INTO CLASS VALUES('SOFTWARE','21/JAN/2020','R14','JIM');

1 row created.

SQL> INSERT INTO CLASS VALUES('WEB\_DESIGN','23/JAN/2020','R24','JIM');

1 row created.

SQL> SELECT \* FROM CLASS;

CNAME MEET\_AT ROOM FNAME

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

DS 15/JAN/2020 R128 RAM

OS 14/JAN/2020 R18 RAM

DPSD 20/JAN/2020 R128 SAM

AAD 20/JAN/2020 R128 AUMRUDH

JAVA 25/JAN/2020 R25 AUMRUDH

CAO 24/JAN/2020 R128 JACK

DBMS 22/JAN/2020 R128 JIM

MP 21/JAN/2020 R128 MARKWOOD

APTITUDE 22/JAN/2020 R18 MARKWOOD

SOFTWARE 21/JAN/2020 R14 JIM

WEB\_DESIGN 23/JAN/2020 R24 JIM

11 rows selected.

SQL> SELECT \* FROM CLASS;

CNAME MEET\_AT ROOM FNAME

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

DS 15/JAN/2020 R128 RAM

OS 14/JAN/2020 R18 RAM

DPSD 20/JAN/2020 R128 SAM

AAD 20/JAN/2020 R128 AUMRUDH

JAVA 25/JAN/2020 R25 AUMRUDH

CAO 24/JAN/2020 R128 JACK

DBMS 22/JAN/2020 R128 JIM

MP 21/JAN/2020 R128 MARKWOOD

APTITUDE 22/JAN/2020 R18 MARKWOOD

SOFTWARE 21/JAN/2020 R14 JIM

WEB\_DESIGN 23/JAN/2020 R24 JIM

11 rows selected.

SQL> SELECT \* FROM STUDENT;

SNUM SNAME MAJOUR LE AGE

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

1 LAL HISTORY SR 18

2 KUMAR HISTORY JR 18

3 KARAN SCIENCE JR 19

5 JOHN SCIENCE SR 22

SQL> INSERT INTO ENROLLED VALUES(1,'DS');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(1,'OS');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(2,'OS');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(2,'DPSD');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(3,'AAD');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(5,'AAD');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(5,'JAVA');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(5,'APTITUDE');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(1,'CAO');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(2,'MP');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(3,'MP');

1 row created.

SQL> INSERT INTO ENROLLED VALUES(2,'DBMS');

1 row created.

SQL> SELECT \* FROM ENROLLED;

SNUM CNAME

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

1 DS

1 OS

2 OS

2 DPSD

3 AAD

5 AAD

5 JAVA

5 APTITUDE

1 CAO

2 MP

3 MP

SNUM CNAME

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

2 DBMS

12 rows selected.

SQL> SELECT \* FROM STUDENT;

SNUM SNAME MAJOUR LE AGE

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

1 LAL HISTORY SR 18

2 KUMAR HISTORY JR 18

3 KARAN SCIENCE JR 19

5 JOHN SCIENCE SR 22

SQL> SELECT \* FROM FACULTY;

FID FNAME DEPID

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

25 RAM IT

41 SAM IT

11 JACK CSE

5 JIM MECH

13 MARKWOOD ECE

34 AUMRUDH EEE

6 rows selected.

SQL> SELECT \* FROM CLASS;

CNAME MEET\_AT ROOM FNAME

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

DS 15/JAN/2020 R128 RAM

OS 14/JAN/2020 R18 RAM

DPSD 20/JAN/2020 R128 SAM

AAD 20/JAN/2020 R128 AUMRUDH

JAVA 25/JAN/2020 R25 AUMRUDH

CAO 24/JAN/2020 R128 JACK

DBMS 22/JAN/2020 R128 JIM

MP 21/JAN/2020 R128 MARKWOOD

APTITUDE 22/JAN/2020 R18 MARKWOOD

SOFTWARE 21/JAN/2020 R14 JIM

WEB\_DESIGN 23/JAN/2020 R24 JIM

11 rows selected.

//SELECT COMMAND EX

//ques 1

SQL> SELECT DISTINCT SNAME FROM STUDENT WHERE (LEVELL = 'JR' OR LEVELL = 'SR');

SNAME

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

KUMAR

KARAN

JOHN

LAL

SQL> INSERT INTO STUDENT VALUES(4,'SANKAR','FUTURE','BG',20);

1 row created.

SQL> SELECT \* FROM STUDENT;

SNUM SNAME MAJOUR LE AGE

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

1 LAL HISTORY SR 18

2 KUMAR HISTORY JR 18

3 KARAN SCIENCE JR 19

5 JOHN SCIENCE SR 22

4 SANKAR FUTURE BG 20

//ques 1 again

SQL> SELECT DISTINCT SNAME FROM STUDENT WHERE (LEVELL = 'JR' OR LEVELL = 'SR');

SNAME

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

KUMAR

KARAN

JOHN

LAL

SQL> INSERT INTO STUDENT VALUES(6,'DADA','BIOLOGY','BG',27);

1 row created.

SQL> INSERT INTO STUDENT VALUES(7,'ALK','COMPUTER','SR',24);

1 row created.

SQL> SELECT \* FROM STUDENT;

SNUM SNAME MAJOUR LE AGE

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

1 LAL HISTORY SR 18

2 KUMAR HISTORY JR 18

3 KARAN SCIENCE JR 19

5 JOHN SCIENCE SR 22

4 SANKAR FUTURE BG 20

6 DADA BIOLOGY BG 27

7 ALK COMPUTER SR 24

7 rows selected.

//ques 2

SQL> SELECT MAX(AGE) FROM STUDENT WHERE MAJOUR='HISTORY' OR MAJOUR='SCIENCE';

MAX(AGE)

----------

22

//ques 3

SQL> SELECT COUNT(\*) FROM CLASS WHERE (ROOM = 'R128') AND (EXTRACT(MONTH FROM MEET\_AT)=01 OR EXTRACT(MONTH FROM MEET\_AT)=02);

COUNT(\*)

----------

6

//q 3

SQL> SELECT CNAME FROM CLASS WHERE (ROOM = 'R128') AND (EXTRACT(MONTH FROM MEET\_AT)=01 OR EXTRACT(MONTH FROM MEET\_AT)=02);

CNAME

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

DS

DPSD

AAD

CAO

DBMS

MP

6 rows selected.

SQL> INSERT INTO FACULTY VALUES(1414,'DARRIUS','MBA');

1 row created.

SQL> INSERT INTO CLASS VALUES('M4','20/FEB/2020','R14','DARRIUS');

1 row created.

SQL> INSERT INTO CLASS VALUES('DATA\_ANALYTICS','1/FEB/2020','R24','DARRIUS');

1 row created.

//ques 4

SQL> SELECT DISTINCT FNAME FROM CLASS WHERE CNAME LIKE 'DA%S';

FNAME

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

DARRIUS

SQL> SELECT DISTINCT LEVELL,AVG(AGE) FROM STUDENT WHERE LEVELL<>'JR' GROUP BY LEVELL;

LE AVG(AGE)

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

SR 21.3333333

BG 23.5

SQL> SELECT \* FROM FACULTY;

FID FNAME DEPID

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

25 RAM IT

41 SAM IT

11 JACK CSE

5 JIM MECH

13 MARKWOOD ECE

34 AUMRUDH EEE

1414 DARRIUS MBA

7 rows selected.

//ques 5

SQL> SELECT DISTINCT FNAME FROM FACULTY WHERE UPPER(DEPID)='IT';

FNAME

----------

RAM

SAM

SQL> SELECT \* FROM CLASS;

CNAME MEET\_AT ROOM FNAME

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

DS 15/JAN/2020 R128 RAM

OS 14/JAN/2020 R18 RAM

DPSD 20/JAN/2020 R128 SAM

AAD 20/JAN/2020 R128 AUMRUDH

JAVA 25/JAN/2020 R25 AUMRUDH

CAO 24/JAN/2020 R128 JACK

DBMS 22/JAN/2020 R128 JIM

MP 21/JAN/2020 R128 MARKWOOD

APTITUDE 22/JAN/2020 R18 MARKWOOD

SOFTWARE 21/JAN/2020 R14 JIM

WEB\_DESIGN 23/JAN/2020 R24 JIM

CNAME MEET\_AT ROOM FNAME

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

M4 20/FEB/2020 R14 DARRIUS

DATA\_ANALYTICS 01/FEB/2020 R24 DARRIUS

13 rows selected.

//qn 6

SQL> SELECT DISTINCT FNAME,COUNT(\*) FROM CLASS WHERE ROOM='R128' GROUP BY FNAME;

FNAME COUNT(\*)

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

RAM 1

AUMRUDH 1

JACK 1

JIM 1

SAM 1

MARKWOOD 1

6 rows selected.

//q 6

SQL> SELECT DISTINCT LEVELL,COUNT(\*) FROM STUDENT WHERE LEVELL<>'JR' GROUP BY LEVELL ,AGE;

LE COUNT(\*)

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

BG 1

SR 1

//q 6 another

SQL> SELECT DISTINCT LEVELL,AVG(AGE) FROM STUDENT WHERE LEVELL<>'JR' GROUP BY LEVELL;

LE AVG(AGE)

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

SR 21.3333333

BG 23.5

//q 8

SQL> SELECT SNUM FROM ENROLLED group by snum HAVING COUNT(\*) = (SELECT MAX(COUNT(\*)) FROM ENROLLED GROUP BY SNUM);

SNUM

----------

2