**Create the following tables and execute the queries given below**

SQL> CREATE TABLE SAILORS(sid int NOT NULL PRIMARY KEY,sname varchar(25),rating number(3),age number(2));

Table created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(22,'Dustin',7,45);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(29,'Brutas',1,33);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(31,'Lubber',8,55);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(32,'Andy',8,25);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(58,'Rusty',10,35);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(64,'Horatio',7,35);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(71,'Zorba',10,16);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(74,'Horatio',9,35);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(85,'Art',3,26);

1 row created.

SQL> INSERT INTO SAILORS(sid,sname,rating,age)values(95,'Bob',3,64);

1 row created.

SQL> CREATE TABLE BOATS(Bid int NOT NULL PRIMARY KEY,bname varchar(25),color varchar(25));

Table created.

SQL> INSERT INTO BOATS(Bid,bname,color)values(101,'Interlake','Blue');

1 row created.

SQL> INSERT INTO BOATS(Bid,bname,color)values(102,'Interlake','Red');

1 row created.

SQL> INSERT INTO BOATS(Bid,bname,color)values(103,'Clipper','Green');

1 row created.

SQL> INSERT INTO BOATS(Bid,bname,color)values(104,'Marine','Red');

1 row created.

SQL> create table RESERVES(sid number(3)references SAILORS(sid),Bid number(3)references BOATS(Bid),day date);

Table created.

SQL> INSERT INTO RESERVES values(22,101,'10-oct-98');

1 row created.

SQL> INSERT INTO RESERVES values(22,102,'10-oct-98');

1 row created.

SQL> INSERT INTO RESERVES values(22,103,'10-aug-98');

1 row created.

SQL> INSERT INTO RESERVES values(22,104,'10-jul-98');

1 row created.

SQL> INSERT INTO RESERVES values(31,102,'11-oct-98');

1 row created.

SQL> INSERT INTO RESERVES values(31,103,'11-jun-98');

1 row created.

SQL> INSERT INTO RESERVES values(64,101,'9-may-98');

1 row created.

SQL> INSERT INTO RESERVES values(64,102,'9-aug-98');

1 row created.

SQL> INSERT INTO RESERVES values(74,103,'9-aug-98');

1 row created.

1. SQL> SELECT sname,age from SAILORS;

SNAME AGE

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Dustin 45

Brutas 33

Lubber 55

Andy 25

Rusty 35

Horatio 35

Zorba 16

Horatio 35

Art 26

Bob 64

10 rows selected.

1. SQL> SELECT \*FROM SAILORS S,RESERVES R WHERE S.sid=R.sid AND R.bid=101;

SID SNAME RATING AGE SID BID

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DAY

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22 Dustin 7 45 22 101

10-OCT-98

64 Horatio 7 35 64 101

09-MAY-98

1. SQL> select \*FROM SAILORS WHERE rating>7;

SID SNAME RATING AGE

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31 Lubber 8 55

32 Andy 8 25

58 Rusty 10 35

71 Zorba 10 16

74 Horatio 9 35

1. SQL> SELECT S.sname from SAILORS S,RESERVES R WHERE S.sid=R.sid AND R.bid=103;

SNAME

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Dustin

Lubber

Horatio

1. SQL> select distinct s.sname,s.age from SAILORS s,RESERVES r,BOATS b where s.sid=r.sid and r.Bid=b.Bid and b.color='Red'order by s.age;

SNAME AGE

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Horatio 35

Dustin 45

Lubber 55

1. SQL> select distinct s.sname from SAILORS s,RESERVES r,BOATS b where s.sid=r.sid AND r.Bid=b.Bid AND(b.color='Red' OR b.color='Green');

SNAME

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Lubber

Dustin

Horatio

8 rows selected.

1. SQL> select b.color from SAILORS s,RESERVES r,BOATS b where s.sid=r.sid and r.Bid=b.Bid and s.sname='Lubber';

COLOR

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Red

Green

Red

1. SQL> select s.sname from SAILORS s,BOATS b,RESERVES r where s.sid=r.sid and r.Bid=b.Bid and b.color='Red' intersect select s.sname from SAILORS s,BOATS b,RESERVES r WHERE s.sid=r.sid and r.Bid=b.Bid and b.color='Green';

SNAME

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

Dustin

Horatio

Lubber

1. SQL> SELECT DISTINCT s.sname FROM SAILORS s, RESERVES r WHERE s.sid = r.sid;

SNAME

Lubber

Dustin

Horatio

1. SQL> SELECT DISTINCT s.sid,s.sname FROM SAILORS s,RESERVES r1,RESERVES r2 WHERE s.sid=r1.sid AND s.sid=r2.sid AND r1.day=r2.day AND r1.Bid<>r2.Bid;

SID SNAME

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22 Dustin

1. SQL> select s.sname,s.age from SAILORS s where s.age<=all(select age from SAILORS);

SNAME AGE

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Zorba 16

1. SQL> select s.sname,s.rating from SAILORS s where s.rating>any(select s2.rating from SAILORS s2 where s2.sname='Horatio');

SNAME RATING

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Rusty 10

Zorba 10

Horatio 9

Lubber 8

Andy 8

1. SQL> select s.sname from SAILORS s where NOT EXISTS ( select b.Bid from BOATS b where NOT EXISTS ( select r.Bid from RESERVES r where r.Bid = b.Bid and r.sid = s.sid ) );

SNAME

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Dustin

1. SQL> select count(distinct s.sname)from SAILORS s;

COUNT(DISTINCTS.SNAME)

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9

1. SQL> SELECT AVG(s.age) FROM SAILORS s;

AVG(S.AGE)

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36.9

1. SQL> select s.rating,avg(s.age)as avg\_age from SAILORS s group by s.rating;

RATING AVG\_AGE

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1 33

8 40

7 40

3 45

10 25.5

9 35

6 rows selected.

1. SQL> select s.rating,avg(s.age)as avg\_age from SAILORS s group by s.rating having count(\*)>1;

RATING AVG\_AGE

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8 40

7 40

3 45

10 25.5