

DATABASE

CODE FOR TABLES :-

```
CREATE TABLE Sailors (sid varchar2(2),sname varchar2(10),rating number(2),age number(2));
INSERT INTO Sailors VALUES('S1','Ash',5,50);
INSERT INTO Sailors VALUES('S2','Sam',4,40);
INSERT INTO Sailors VALUES('S3','King',3,35);
INSERT INTO Sailors VALUES('S4','Tom',2,55);
INSERT INTO Sailors VALUES('S5','Riya',3,25);
```

```
CREATE TABLE Boats (bid varchar2(2),bname varchar2(10),color varchar2(10));
INSERT INTO Boats VALUES('B1','Brahmos_1','Red');
INSERT INTO Boats VALUES('B2','Agni_3','Green');
INSERT INTO Boats VALUES('B3','Agni_5','Red');
INSERT INTO Boats VALUES('B4','Brahmos_2','Green');
INSERT INTO Boats VALUES('B5','Pralay','Purple');
INSERT INTO Boats VALUES('B6','Dharti','Crimson');
INSERT INTO Boats VALUES('B7','Ocean_Queen','Red');
INSERT INTO Boats VALUES('B8','Jal','Red');
```

```
CREATE TABLE Reserves (sid varchar2(2),bid varchar2(2),day varchar2(10));
INSERT INTO Reserves VALUES('S1','B1','Monday');
INSERT INTO Reserves VALUES('S1','B2','Thursday');
INSERT INTO Reserves VALUES('S2','B3','Friday');
INSERT INTO Reserves VALUES('S2','B4','Friday');
INSERT INTO Reserves VALUES('S3','B5','Wednesday');
INSERT INTO Reserves VALUES('S3','B6','Sunday');
INSERT INTO Reserves VALUES('S4','B7','Tuesday');
INSERT INTO Reserves VALUES('S5','B8','Saturday');
```

```
SELECT * FROM Sailors;
SELECT * FROM Boats;
SELECT * FROM Reserves;
```

OUTPUT FOR TABLES :-

Sailors

sid	sname	rating	age
S1	Ash	5	50
S2	Sam	4	40
S3	King	3	35
S4	Tom	2	55
S5	Riya	3	25

Boats

bid	bname	color
B1	Brahmos_1	Red
B2	Agni_3	Green
B3	Agni_5	Red
B4	Brahmos_2	Green
B5	Pralay	Purple
B6	Dharti	Crimson
B7	Ocean_Queen	Red
B8	Jal	Red

Reserves

sid	bid	color
S1	B1	Monday
S1	B2	Thursday
S2	B3	Friday
S2	B4	Friday
S3	B5	Wednesday
S3	B6	Sunday
S4	B7	Tuesday
S5	B8	Saturday

QUERIES:-

Q.1] Find sailor ids who have reserved red boats or green boats?

→

Query :-

```
SELECT r.sid
FROM Boats b,Reserves r
WHERE b.color = 'Red' and
      b.bid = r.bid
UNION
SELECT r.sid
FROM Boats b,Reserves r
WHERE b.color = 'Green' and
      b.bid = r.bid;
```

Output :-

sid
S1
S2
S4
S5

Q.2] Find sailor names who have reserved red and green boats?

→

Query :-

```
SELECT s.sname
FROM Sailors s, Boats b,Reserves r
WHERE b.color = 'Red' and
      b.bid = r.bid and
      r.sid = s.sid
INTERSECT
SELECT s.sname
FROM Sailors s, Boats b,Reserves r
WHERE b.color = 'Green' and
      b.bid = r.bid and
      r.sid = s.sid;
```

Output :-

sname
Ash
Sam

Q.3] Find sailor names who have reserved red boats but not green boats?

→

Query :-

```
SELECT s.sname
FROM Sailors s, Boats b,Reserves r
WHERE b.color = 'Red' and
      b.bid = r.bid and
      r.sid = s.sid
EXCEPT
```

```
SELECT s.sname
FROM Sailors s, Boats b,Reserves r
WHERE b.color = 'Green' and
      b.bid = r.bid and
      r.sid = s.sid;
```

Output :-

sname
Riya
Tom