

## ASSIGNMENT- 4

CREATE TABLE SAILORS

(  
SID NUMBER(3), SNAME VARCHAR(20), RATING NUMBER(2), AGE VARCHAR(4)  
);

Insert into SAILORS values(22,'Dustin', 7, '45.0');

Insert into SAILORS values(29,'Brutus',1, '33.0');

Insert into SAILORS values(31,'Lubber',8, '55.5');

Insert into SAILORS values(32,'Andy',8, '25.5') ;

Insert into SAILORS values(58,'Rusty',10, '35.0');

Insert into SAILORS values(64,'Horatio',7, '35.0');

Insert into SAILORS values(71,'Zorba',10, '16.0');

Insert into SAILORS values(74,'Horatio',9, '35.0');

Insert into SAILORS values(85,'Art',3, '25.5');

Insert into SAILORS values(95,'Bob',8, '63.5');

SELECT \* FROM SAILORS;

SID	SNAME	RATING	AGE
22	Dustin	7	45.0
29	Brutus	1	33.0
31	Lubber	8	55.5
32	Andy	8	25.5
58	Rusty	10	35.0
64	Horatio	7	35.0
71	Zorba	10	16.0
74	Horatio	9	35.0
95	Bob	8	63.5
85	Art	3	25.5

10 rows returned in 0.00 seconds

Create Table Reserves

(SID NUMBER(2), BID NUMBER(4), Day varchar2(15));

Insert into Reserves values (22,101,'10/10/98');

Insert into Reserves values (22,102,'10/10/98');

Insert into Reserves values(22,103,'10/8/98');

Insert into Reserves values(22,104,'10/7/98');

Insert into Reserves values(31,102,'11/10/98');

```

Insert into Reserves values(31,103,'11/6/98');
Insert into Reserves values(31,104,'11/12/98');
Insert into Reserves values(64,101,'9/5/98');
Insert into Reserves values(64,102,'9/8/98');
Insert into Reserves values(74,103,'9/8/98');
SELECT * FROM Reserves;

```

SID	BID	DAY
74	103	9/8/98
22	101	10/10/98
22	102	10/10/98
22	103	10/8/98
22	104	10/7/98
31	102	11/10/98
31	103	11/6/98
31	104	11/12/98
64	101	9/5/98
64	102	9/8/98

Create Table Boats

```

(BID NUMBER(3),
BNAME varchar2(10),
COLOR varchar2(10)
);
Insert into Boats values (101,'Interlake','blue');
Insert into Boats values (102,'Interlake','red');
Insert into Boats values (103,'Clipper','green');
Insert into Boats values (104,'Marine','red');

```

SELECT \* FROM Boats;

BID	BNAME	COLOR
101	Interlake	blue
102	Interlake	red
103	Clipper	green
104	Marine	red

**1. Find the names of sailors who have reserved boat 103:**

```
SELECT s.sname
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
WHERE r.bid = 103;
```

SNAME
Dustin
Lubber
Horatio

**2. Find the names of sailors who have reserved a red boat:**

```
SELECT distinct s.sname
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
JOIN Boats b ON r.bid = b.bid
WHERE b.color = 'red';
```

SNAME
Lubber
Dustin
Horatio

**3. Find the colours of boats reserved by Lubber:**

```
SELECT b.color
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
JOIN Boats b ON r.bid = b.bid
WHERE s.sname = 'Lubber';
```

COLOR
red
green
red

**4. Find the names of sailors who have reserved at least one boat:**

```
SELECT Distinct s.sname
FROM Sailors s
Join Reserves r on S.sid = R.sid;
```

SNAME
Lubber
Dustin
Horatio

**5. How many sailors are there within the range of 40-60 who have reserved a red boat:**

```
SELECT COUNT(Distinct s.sname)
FROM Sailors s
Join Reserves r on s.sid = r.sid
Join Boats b on r.bid = b.bid
WHERE s.age BETWEEN 40 AND 60 AND B.color = 'red'
```

COUNT(DISTINCTS.SNAME)
2

**6. Find the names of sailors who have reserved a red or a green boat:**

```
SELECT distinct s.sname
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
JOIN Boats b ON r.bid = b.bid
WHERE b.color IN('red','green');
```

SNAME
Lubber
Dustin
Horatio

**7. Find the names of the sailors who have reserved atleast two boats:**

```
SELECT DISTINCT s.sname
FROM Sailors s
Join Reserves r1 ON s.sid = r1.sid
Join Reserves r2 ON r1.sid = r2.sid
WHERE r1.bid <> r2.bid
```

SNAME
Lubber
Dustin
Horatio

**8. On which Date, Boat 102 was reserved by Dustbin:**

```
SELECT distinct s.sname,s.sid,b.bid,day
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
JOIN Boats b ON r.bid = b.bid
WHERE r.bid = 102 and s.sname='Dustin'
```

SNAME	SID	BID	DAY
Dustin	22	102	10/10/98

**9. How Many Sailors are there who have same rating:**

```
SELECT rating, COUNT(rating) AS count
FROM Sailors
GROUP BY rating
HAVING COUNT(rating) > 1
```

RATING	COUNT
8	3
7	2
10	2

**10. Find the sids of sailors with age over 20 who have not reserved a red boat:**

```
SELECT distinct s.sname, s.age, s.sid
FROM Sailors s
JOIN Reserves r ON s.sid = r.sid
JOIN Boats b ON r.bid = b.bid
WHERE b.color NOT IN('red') AND s.age>20;
```

SNAME	AGE	SID
Dustin	45.0	22
Horatio	35.0	64
Horatio	35.0	74
Lubber	55.5	31

**11. Find the names of sailors who have reserved all boats:**

```

Select s.sid,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));

```

SID	SNAME
22	Dustin

**12. Find the names of sailors who have reserved all boats Call Interlake:**

```

Select * from Sailors
where sid in(select sid from reserves
inner join boats on reserves.bid = boats.bid
where boats.bname='Interlake')

```

SID	SNAME	RATING	AGE
22	Dustin	7	45.0
31	Lubber	8	55.5
64	Horatio	7	35.0