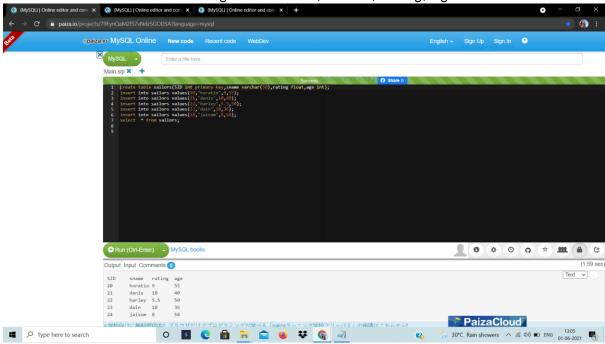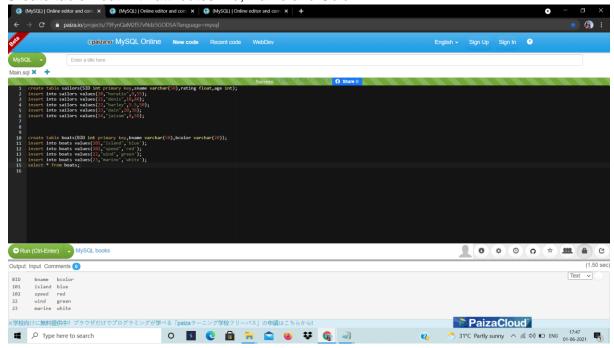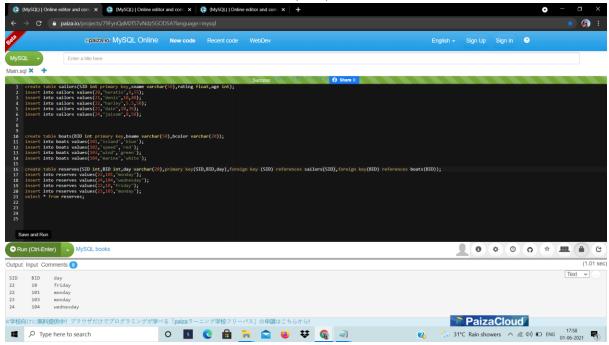# *Set Operations*

Create table Sailors with following attributes Sid, Sname, Rating, Age
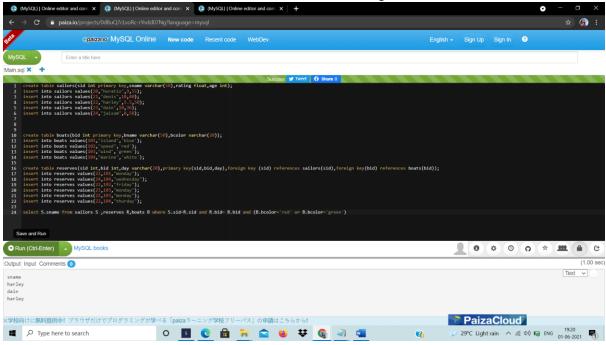

Create table Boat with attributes Bid, Name and Color

Create table Reserves with the attributes Sid, Bid, Date


```
1   create table sailors(SID int primary key,sname varchar(50),rating float,age int);
2   insert into sailors values(20,"horatio",9,55);
3   insert into sailors values(21,"denis",10,40);
4   insert into sailors values(22,"harley",5.5,50);
5   insert into sailors values(23,"dain",10,36);
6   insert into sailors values(24,"jaisom",8,50);
7
8
9
10  create table boats(BID int primary key,bname varchar(50),bcolor varchar(20));
11  insert into boats values(101,"island",'blue');
12  insert into boats values(102,"speed",'red');
13  insert into boats values(103,"wind","green");
14  insert into boats values(104,"marine","white");
15
16  create table reserves(SID int,BID int,day varchar(20),primary key(SID,BID,day),foreign key (SID) references sailors(SID),foreign key(BID) references boats(BID));
17  insert into reserves values(22,101,"monday");
18  insert into reserves values(24,104,"wednesday");
19  insert into reserves values(22,10,"friday");
20  insert into reserves values(23,103,"monday");
21  select * from reserves;
22
23
24
25
```

Output

```
SID   BID   day
22    10    friday
22    101   monday
23    103   monday
24    104   wednesday
```

1.find the names of sailors who have reserved a red or a green boat


```
1   create table sailors(sid int primary key,sname varchar(50),rating float,age int);
2   insert into sailors values(20,"horatio",9,55);
3   insert into sailors values(21,"denis",10,40);
4   insert into sailors values(22,"harley",5.5,50);
5   insert into sailors values(23,"dain",10,36);
6   insert into sailors values(24,"jaisom",8,50);
7
8
9
10  create table boats(bid int primary key,bname varchar(50),bcolor varchar(20));
11  insert into boats values(101,"island",'blue');
12  insert into boats values(102,"speed",'red');
13  insert into boats values(103,"wind","green");
14  insert into boats values(104,"marine","white");
15
16  create table reserves(sid int,bid int,day varchar(20),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17  insert into reserves values(22,101,"monday");
18  insert into reserves values(24,104,"wednesday");
19  insert into reserves values(22,102,"friday");
20  insert into reserves values(23,103,"monday");
21  insert into reserves values(22,103,"monday");
22  insert into reserves values(22,104,"thurday");
23
24  select S.sname from sailors S ,reserves R,boats B where S.sid=R.sid and R.bid= B.bid and (B.bcolor='red' or B.bcolor='green')
```

Output

```
sname
harley
dain
harley
```

2.find the names of sailors who have reserved both red or a green boat

3.find the sid of sailors who have reserved a red boat but not a green boat

4.find all sid of sailors who have a rating of 10 or have reserved boat 104

MySQL ▾

Main.sql ✖ ➕

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```sql
1   create table sailors(sid int primary key,sname varchar(50),rating float,age int);
2   insert into sailors values(20,"horatio",9,55);
3   insert into sailors values(21,"denis",10,40);
4   insert into sailors values(22,"harley",5.5,50);
5   insert into sailors values(23,"dain",10,36);
6   insert into sailors values(24,"jaison",8,50);
7
8
9
10  create table boats(bid int primary key,bname varchar(50),bcolor varchar(20));
11  insert into boats values(101,"island",'blue');
12  insert into boats values(102,"speed",'red');
13  insert into boats values(103,"wind",'green');
14  insert into boats values(104,"marine",'white');
15
16  create table reserves(sid int,bid int,day varchar(20),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17  insert into reserves values(22,101,"monday");
18  insert into reserves values(24,104,"wednesday");
19  insert into reserves values(22,102,"friday");
20  insert into reserves values(23,103,"monday");
21  insert into reserves values(22,103,"monday");
22  insert into reserves values(22,104,"thurday");
23
24  select S.sid from sailors S where S.rating=10
25  union
26  select R.sid from reserves R where R.bid=104;
```

Save and Run

⊕ Run (Ctrl-Enter) ▲   MySQL books

Output Input Comments 0   (1.52 sec)

Text ▾

```
sid
21
23
24
22
```