

SUBQUERY

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

The screenshot shows the Paiza Online MySQL editor interface. The code editor contains the following SQL script:

```
1 create table sailors(sid int primary key,sname varchar(10),rating float,age int);
2 insert into sailors values(10,"horatio",4,55);
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",8,58);
7 select * from sailors;
8
9
```

The output window shows the result of the query:

SID	sname	rating	age
20	horatio	9	55
21	denis	10	40
22	harley	5.5	50
23	dain	10	36
24	jaison	8	58

Create table Boat with attributes Bid, Name and Color

The screenshot shows the Paiza Online MySQL editor interface. The code editor contains the following SQL script:

```
1 create table sailors(sid int primary key,sname varchar(10),rating float,age int);
2 insert into sailors values(10,"horatio",4,55);
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",8,58);
7 select * from sailors;
8
9
10 create table boats(bid int primary key,bname varchar(10),bcolor varchar(10));
11 insert into boats values(101,"island","blue");
12 insert into boats values(102,"speed","red");
13 insert into boats values(22,"wind","green");
14 insert into boats values(23,"marine","white");
15 select * from boats;
16
```

The output window shows the result of the query:

BID	bname	bcolor
101	island	blue
102	speed	red
22	wind	green
23	marine	white

Create table Reserves with the attributes Sid, Bid, Date

The screenshot shows the Paiza Online MySQL editor interface. The code editor contains the following SQL statements:

```
1 create table sailors(sid int primary key,sname varchar(30),rating float,age int);
2 insert into sailors values(10,"horatio",5,30);
3 insert into sailors values(21,"denis",10,40);
4 insert into sailors values(22,"harley",5,50);
5 insert into sailors values(23,"dain",10,30);
6 insert into sailors values(14,"jaison",8,30);
7
8
9
10 create table boats(bid int primary key,bname varchar(30),bcolor varchar(30));
11 insert into boats values(10,"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(10),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17 insert into reserves values(1,10,"monday");
18 insert into reserves values(2,102,"wednesday");
19 insert into reserves values(2,103,"friday");
20 insert into reserves values(2,103,"monday");
21 select * from reserves;
```

The output window shows the result of the query:

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

1. Find the names of sailors who have not reserved a red boat

The screenshot shows the Paiza Online MySQL editor interface. The code editor contains the following SQL statements:

```
1 create table sailors(sid int primary key,sname varchar(30),rating float,age int);
2 insert into sailors values(10,"horatio",5,30);
3 insert into sailors values(21,"denis",10,40);
4 insert into sailors values(22,"harley",5,50);
5 insert into sailors values(23,"dain",10,30);
6 insert into sailors values(14,"jaison",8,30);
7
8
9
10 create table boats(bid int primary key,bname varchar(30),bcolor varchar(30));
11 insert into boats values(10,"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(10),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17 insert into reserves values(1,10,"monday");
18 insert into reserves values(2,102,"wednesday");
19 insert into reserves values(2,102,"friday");
20 insert into reserves values(2,103,"monday");
21 select S.sname from sailors S,sid not in(select R.sid from reserves R where R.bid in (select B.bid from boats B where B.bcolor='red'));
```

The output window shows the result of the query:

sname
horatio
denis
dain
jaison

2. Find the sailors whose rating is better than some sailor called "Horatio"

The screenshot shows a MySQL online editor interface. The code editor contains the following SQL script:

```
1 create table sailors(sid int primary key,sname varchar(30),rating float,age int);
2 insert into sailors values(1,"Horatio",5,33);
3 insert into sailors values(2,"denis",10,40);
4 insert into sailors values(22,"harley",5,50);
5 insert into sailors values(23,"dain",10,30);
6 insert into sailors values(24,"jaison",8,30);
7
8
9
10 create table boats(bid int primary key,bname varchar(30),bcolor varchar(30));
11 insert into boats values(10,"island","blue");
12 insert into boats values(100,"speed","red");
13 insert into boats values(101,"vald","green");
14 insert into boats values(104,"marime","white");
15
16 create table reserves(sid int,bid int,day varchar(30),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17 insert into reserves values(2,101,"monday");
18 insert into reserves values(2,104,"monday");
19 insert into reserves values(22,102,"friday");
20 insert into reserves values(23,102,"friday");
21 insert into reserves values(24,104,"monday");
22
23 select S.sname,S.rating from sailors S where S.rating > any(select S2.rating from sailors S2 where S2.sname="Horatio");
24
```

The output window shows the result of the query:

sname	rating
denis	10
dain	10

The interface includes a top navigation bar with "paiza.io MySQL Online", "New code", "Recent code", and "WebDev". It also has a search bar, a "Run (Ctrl-Enter)" button, and a "MySQL books" link. The bottom status bar shows the PaizaCloud logo, a search bar, and system information like "31°C Rain showers" and "18:08 01-06-2021".

3. Find the sailors with highest rating

The screenshot shows a MySQL online editor interface. The code editor contains the following SQL script:

```
1 create table sailors(sid int primary key,sname varchar(30),rating float,age int);
2 insert into sailors values(1,"Horatio",5,33);
3 insert into sailors values(21,"denis",10,40);
4 insert into sailors values(22,"harley",5,50);
5 insert into sailors values(23,"dain",10,30);
6 insert into sailors values(24,"jaison",8,30);
7
8
9
10 create table boats(bid int primary key,bname varchar(30),bcolor varchar(30));
11 insert into boats values(10,"island","blue");
12 insert into boats values(100,"speed","red");
13 insert into boats values(101,"vald","green");
14 insert into boats values(104,"marime","white");
15
16 create table reserves(sid int,bid int,day varchar(30),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17 insert into reserves values(2,101,"monday");
18 insert into reserves values(2,104,"monday");
19 insert into reserves values(22,102,"friday");
20 insert into reserves values(23,102,"friday");
21 insert into reserves values(24,104,"monday");
22 insert into reserves values(22,104,"thursday");
23
24 select * from sailors S where S.rating >= all (select S2.rating from sailors S2);
```

The output window shows the result of the query:

sid	sname	rating	age
21	denis	10	40
23	dain	10	30

The interface includes a top navigation bar with "paiza.io MySQL Online", "New code", "Recent code", and "WebDev". It also has a search bar, a "Run (Ctrl-Enter)" button, and a "MySQL books" link. The bottom status bar shows the PaizaCloud logo, a search bar, and system information like "29°C Light rain" and "18:13 01-06-2021".

4. Find the names of sailors who have reserved all boats

The screenshot shows the MySQL Online editor interface. The SQL editor contains the following code:

```
1 create table sailors(sid int primary key,sname varchar(50),rating float,age int);
2 insert into sailors values(1,"harley",10,20);
3 insert into sailors values(2,"dimitri",10,20);
4 insert into sailors values(3,"harley",10,20);
5 insert into sailors values(2,"dimitri",10,20);
6 insert into sailors values(2,"jaison",10,20);
7
8
9
10 create table boats(bid int primary key,bname varchar(50),bcolor varchar(50));
11 insert into boats values(10,"island","blue");
12 insert into boats values(10,"speed","red");
13 insert into boats values(10,"wind","green");
14 insert into boats values(10,"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(1,10,"monday");
18 insert into reserves values(2,10,"wednesday");
19 insert into reserves values(2,10,"friday");
20 insert into reserves values(2,10,"monday");
21 insert into reserves values(2,10,"monday");
22 insert into reserves values(2,10,"thursday");
23
24 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));
25
26
27
```

The output window shows the result of the query:

sname
harley

The status bar at the bottom indicates the query was executed successfully in 1.51 seconds.

2. Find the name and age of the oldest sailor

The screenshot shows the MySQL Online editor interface. The SQL editor contains the following code:

```
1 create table sailors(sid int primary key,sname varchar(50),rating float,age int);
2 insert into sailors values(1,"harley",10,20);
3 insert into sailors values(1,"dimitri",10,20);
4 insert into sailors values(2,"harley",10,20);
5 insert into sailors values(2,"dimitri",10,20);
6 insert into sailors values(2,"jaison",10,20);
7
8
9
10 create table boats(bid int primary key,bname varchar(50),bcolor varchar(50));
11 insert into boats values(10,"island","blue");
12 insert into boats values(10,"speed","red");
13 insert into boats values(10,"wind","green");
14 insert into boats values(10,"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(1,10,"monday");
18 insert into reserves values(2,10,"wednesday");
19 insert into reserves values(2,10,"friday");
20 insert into reserves values(2,10,"monday");
21 insert into reserves values(2,10,"monday");
22 insert into reserves values(2,10,"thursday");
23
24 select S.sname,S.age from sailors S where S.age=(select max(S2.age) from sailors S2);
25
```

The output window shows the result of the query:

sname	age
jaison	58

The status bar at the bottom indicates the query was executed successfully in 1.52 seconds.

6. Find the name of sailor who are older than the oldest sailor with rating of 10

The screenshot shows a MySQL online editor interface. The main area contains SQL code for creating tables, inserting data, and a query to find sailors older than the oldest sailor with a rating of 10. The query results are displayed in a table below the code.

```
1 create table sailors(sid int primary key,sname varchar(30),rating float,age int);
2 insert into sailors values(10,"horatio",9,55);
3 insert into sailors values(11,"dimitri",10,40);
4 insert into sailors values(12,"harley",11,5,20);
5 insert into sailors values(13,"dain",10,30);
6 insert into sailors values(14,"jaison",11,30);
7
8
9
10 create table boats(bid int primary key,sname varchar(30),bcolor varchar(30));
11 insert into boats values(10,"island","blue");
12 insert into boats values(10,"speed","red");
13 insert into boats values(10,"wind","green");
14 insert into boats values(10,"maritime","white");
15
16 create table reserves(sid int,bid int,day varchar(30),primary key(sid,bid,day),foreign key (sid) references sailors(sid),foreign key(bid) references boats(bid));
17 insert into reserves values(12,10,"monday");
18 insert into reserves values(12,10,"wednesday");
19 insert into reserves values(12,10,"friday");
20 insert into reserves values(12,10,"monday");
21 insert into reserves values(12,10,"monday");
22 insert into reserves values(12,10,"thursday");
23
24 select S.sname from sailors S where S.age>(select max(S2.age) from sailors S2 where S2.rating=10);
25
```

Output:

sname
horatio
harley
jaison

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