

Application Software Development Lab (ASDL)

Github : [ceccs18c59/cs331:Application Software Development Lab \(github.com\)](https://github.com/ceccs18c59/cs331:Application%20Software%20Development%20Lab)

Experiment 12

SQL Query

```
CREATE TABLE SAILORS (
    SID INT PRIMARY KEY,
    SNAME CHAR(30),
    RATING FLOAT,
    AGE INT
);

INSERT INTO SAILORS VALUES ('301', 'TED', 3.9, 47);
INSERT INTO SAILORS VALUES ('302', 'BARNEY', 4.1, 29);
INSERT INTO SAILORS VALUES ('303', 'MARSHALL', 4.3, 32);

CREATE TABLE BOATS (
    BID INT PRIMARY KEY,
    BNAME CHAR(30),
    COLOUR CHAR(10)
);

INSERT INTO BOATS VALUES ('101', 'SAVIOUR', 'RED'),
('102', 'SPIRIT', 'BLACK'),
('103', 'LIBERTY', 'BLUE');

CREATE TABLE RESERVES (
    SID INT,
    BID INT,
    DAY DATE
);

INSERT INTO RESERVES VALUES ('303','101','2021-01-17'),
('301','102','2021-01-12'),
('303','103','2021-01-14'),
('301','103','2021-01-20');

#1
SELECT A.SID, A.SNAME, A.RATING, A.AGE
FROM SAILORS AS A
```

```
INNER JOIN RESERVES AS C ON A.SID = C.SID AND C.BID = 101;
```

```
#2
```

```
SELECT B.BNAME
FROM RESERVES AS C
INNER JOIN SAILORS AS A ON A.SID = C.SID AND A.SNAME='MARSHALL'
INNER JOIN BOATS AS B ON B.BID = C.BID;
```

```
#3
```

```
SELECT A.SNAME
FROM SAILORS AS A
INNER JOIN RESERVES AS C ON A.SID = C.SID
INNER JOIN BOATS AS B ON B.BID = C.BID AND B.COLOUR = 'RED'
ORDER BY A.AGE;
```

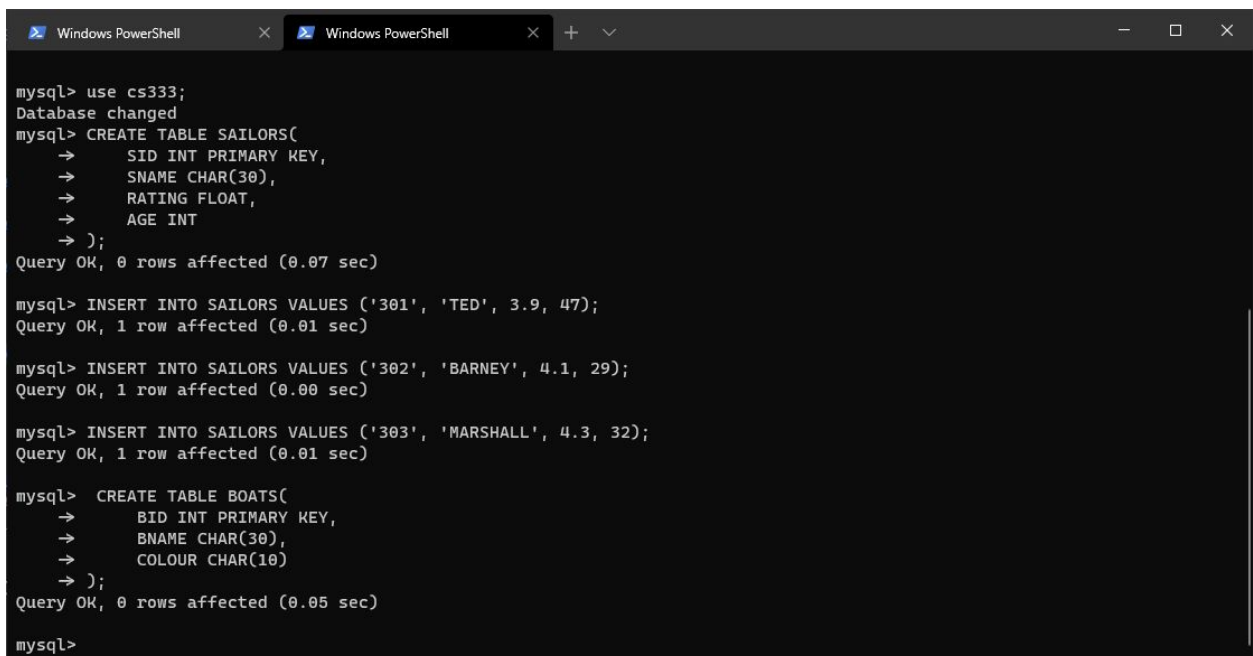
```
#4
```

```
SELECT DISTINCT A.SNAME
FROM SAILORS AS A
INNER JOIN RESERVES AS C ON A.SID IN (C.SID);
```

```
#5
```

```
SELECT A.SID, A.SNAME
FROM RESERVES AS C
INNER JOIN RESERVES AS D ON C.SID <> D.SID AND C.DAY = D.DAY
INNER JOIN SAILORS AS A ON D.SID = A.SID;
```

Result



```
mysql> use cs333;
Database changed
mysql> CREATE TABLE SAILORS(
  →   SID INT PRIMARY KEY,
  →   SNAME CHAR(30),
  →   RATING FLOAT,
  →   AGE INT
  → );
Query OK, 0 rows affected (0.07 sec)

mysql> INSERT INTO SAILORS VALUES ('301', 'TED', 3.9, 47);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO SAILORS VALUES ('302', 'BARNEY', 4.1, 29);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO SAILORS VALUES ('303', 'MARSHALL', 4.3, 32);
Query OK, 1 row affected (0.01 sec)

mysql> CREATE TABLE BOATS(
  →   BID INT PRIMARY KEY,
  →   BNAME CHAR(30),
  →   COLOUR CHAR(10)
  → );
Query OK, 0 rows affected (0.05 sec)

mysql>
```

```
Windows PowerShell
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> CREATE TABLE RESERVES(
  →   SID INT,
  →   BID INT,
  →   DAY DATE
  → );
Query OK, 0 rows affected (0.07 sec)

mysql> INSERT INTO RESERVES VALUES ('303','101','2021-01-17'),
  → ('301','102','2021-01-12'),
  → ('303','103','2021-01-14'),
  → ('301','103','2021-01-20');
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql> SELECT A.SID, A.SNAME, A.RATING, A.AGE
  → FROM SAILORS AS A
  → INNER JOIN RESERVES AS C ON A.SID = C.SID AND C.BID = 101;
+-----+-----+-----+-----+
| SID | SNAME | RATING | AGE |
+-----+-----+-----+-----+
| 303 | MARSHALL | 4.3 | 32 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

```
Windows PowerShell
mysql> SELECT B.BNAME
  → FROM RESERVES AS C
  → INNER JOIN SAILORS AS A ON A.SID = C.SID AND A.SNAME='MARSHALL'
  → INNER JOIN BOATS AS B ON B.BID = C.BID;
+-----+
| BNAME |
+-----+
| SAVIOUR |
| LIBERTY |
+-----+
2 rows in set (0.00 sec)

mysql> SELECT A.SNAME
  → FROM SAILORS AS A
  → INNER JOIN RESERVES AS C ON A.SID = C.SID
  → INNER JOIN BOATS AS B ON B.BID = C.BID AND B.COLOUR = 'RED'
  → ORDER BY A.AGE;
+-----+
| SNAME |
+-----+
| MARSHALL |
+-----+
1 row in set (0.00 sec)

mysql> SELECT DISTINCT A.SNAME
  → FROM SAILORS AS A
  → INNER JOIN RESERVES AS C ON A.SID IN (C.SID);
+-----+
| SNAME |
+-----+
| MARSHALL |
| TED |
+-----+
2 rows in set (0.00 sec)

mysql> SELECT A.SID, A.SNAME
  → FROM RESERVES AS C
  → INNER JOIN RESERVES AS D ON C.SID <> D.SID AND C.DAY = D.DAY
  → INNER JOIN SAILORS AS A ON D.SID = A.SID;
Empty set (0.00 sec)
```