

# Database Management system

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Join operations in mysql:

\*Inner join      \*Right join      \*Left join      \*Full join

```
MySQL 8.0 Command Line Cli x + v
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 34
Server version: 8.0.32 MySQL Community Server - GPL

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use sse;
Database changed
mysql> create table student(rollnum int primary key,name char(20),address char(20),phonenum int,age int);
ERROR 1050 (42S01): Table 'student' already exists
mysql> drop student;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use
near 'student' at line 1
mysql> drop table student;
Query OK, 0 rows affected (0.03 sec)

mysql> desc student;
ERROR 1146 (42S02): Table 'sse.student' doesn't exist
mysql> create table student(rollnum int primary key,name char(20),address char(20),phonenum int,age int);
Query OK, 0 rows affected (0.07 sec)

mysql> insert into student values(1,"Harsh","delhi",9000290018);
ERROR 1264 (22003): Out of range value for column 'phonenum' at row 1
mysql> insert into student values(1,"Harsh","delhi",90002900,18);
Query OK, 1 row affected (0.01 sec)

mysql> insert into student values(2,"pratik","bihar",92002900,19);
Query OK, 1 row affected (0.01 sec)

mysql> insert into student values(3,"riyanka","silguri",91002900,20);
Query OK, 1 row affected (0.01 sec)

mysql> insert into student values(4,"deep","ramnagar",93002900,18);
Query OK, 1 row affected (0.01 sec)

mysql> create table studentcourse(courseid int,roolnum int);
Query OK, 0 rows affected (0.04 sec)

mysql> insert into studentcourse(1,1);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use
near '1,1' at line 1
mysql> insert into studentcourse values(1,1);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(2,2);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(2,3);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(3,4);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(1,5);
Query OK, 1 row affected (0.01 sec)

mysql> insert into studentcourse values(4,9);
Query OK, 1 row affected (0.01 sec)

mysql> insert into studentcourse values(5,10);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(4,11);
Query OK, 1 row affected (0.01 sec)

mysql> select*from student;
+-----+-----+-----+-----+-----+
| rollnum | name   | address | phonenum | age |
+-----+-----+-----+-----+-----+
| 1       | Harsh  | delhi   | 90002900 | 18  |
| 2       | pratik | bihar   | 92002900 | 19  |
| 3       | riyanka | silguri | 91002900 | 20  |
| 4       | deep   | ramnagar | 93002900 | 18  |
| 5       | saptarhi | kolkata | 94002900 | 19  |
| 6       | dhanraj | barbaraj | 95002900 | 20  |
+-----+-----+-----+-----+-----+
```

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MySQL 8.0 Command Line Cll x + v
mysql> select*from studentcourse;
+-----+-----+
| courseid | rolnum |
+-----+-----+
| 1 | 1 |
| 2 | 2 |
| 2 | 3 |
| 3 | 4 |
| 1 | 5 |
| 4 | 9 |
| 5 | 10 |
| 4 | 11 |
+-----+-----+
8 rows in set (0.00 sec)

mysql> select studentcourse.courseid,student.name,student.age from student inner join studentcourse on student.rolnum=studentcourse.rolnum;
ERROR 1054 (42S22): Unknown column 'studentcourse.rolnum' in 'on clause'
mysql> select studentcourse.courseid,student.name,student.age from student inner join studentcourse on student.rolnum=studentcourse.rolnum;
+-----+-----+-----+
| courseid | name | age |
+-----+-----+-----+
| 1 | Harsh | 18 |
| 2 | pratik | 19 |
| 2 | riyanka | 20 |
| 3 | deep | 18 |
| 1 | saptarhi | 19 |
+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select student.name,studentcourse.courseid from student left join studentcourse on studentcourse.rolnum=student.rolnum;
+-----+-----+
| name | courseid |
+-----+-----+
| Harsh | 1 |
| pratik | 2 |
| riyanka | 2 |
| deep | 3 |
| saptarhi | 1 |
| dhanraj | NULL |
| rohit | NULL |
| niraj | NULL |
+-----+-----+
8 rows in set (0.00 sec)
```

```
MySQL 8.0 Command Line Cll x + v
+-----+-----+-----+
| courseid | name | age |
+-----+-----+-----+
| 1 | Harsh | 18 |
| 2 | pratik | 19 |
| 2 | riyanka | 20 |
| 3 | deep | 18 |
| 1 | saptarhi | 19 |
+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select student.name,studentcourse.courseid from student left join studentcourse on studentcourse.rolnum=student.rolnum;
+-----+-----+
| name | courseid |
+-----+-----+
| Harsh | 1 |
| pratik | 2 |
| riyanka | 2 |
| deep | 3 |
| saptarhi | 1 |
| dhanraj | NULL |
| rohit | NULL |
| niraj | NULL |
+-----+-----+
8 rows in set (0.00 sec)

mysql> select student.name,studentcourse.courseid from student right join studentcourse on studentcourse.rolnum=student.rolnum;
+-----+-----+
| name | courseid |
+-----+-----+
| Harsh | 1 |
| pratik | 2 |
| riyanka | 2 |
| deep | 3 |
| saptarhi | 1 |
| NULL | 4 |
| NULL | 5 |
| NULL | 4 |
+-----+-----+
8 rows in set (0.00 sec)
```

