

```
MySQL 8.0 Command Line CLI
ERROR 1046 (3D000): No database selected
mysql> CREATE DATABASE my_database;
Query OK, 1 row affected (0.00 sec)

mysql> USE my_database;
Database changed
mysql> CREATE TABLE user (
  -> id INT PRIMARY KEY AUTO_INCREMENT,
  -> name VARCHAR(255),
  -> sex VARCHAR(255),
  -> age INT,
  -> phone VARCHAR(255)
  -> );
Query OK, 0 rows affected (0.02 sec)

mysql> INSERT INTO user (name, sex, age, phone)
  -> VALUES ('John Doe', 'Male', 25, '123-456-7890'),
  -> ('Jane Smith', 'Female', 31, '987-654-3210'),
  -> ('Bob Johnson', 'Male', 22, '555-123-4567');
Query OK, 3 rows affected (0.00 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM user WHERE age BETWEEN 20 AND 30;
+----+-----+-----+-----+-----+
| id | name   | sex   | age | phone       |
+----+-----+-----+-----+-----+
| 1  | John Doe | Male | 25  | 123-456-7890 |
| 3  | Bob Johnson | Male | 22  | 555-123-4567 |
+----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> INSERT INTO user (name, sex, age, phone)
  -> VALUES ('陈一', 'Male', 28, '111-111-1111'),
  -> ('陈二', 'Female', 26, '222-222-2222'),
  -> ('陈三', 'Male', 24, '333-333-3333');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM user WHERE age BETWEEN 20 AND 30 AND name LIKE '陈%' ORDER BY age DESC;
+----+-----+-----+-----+-----+
| id | name   | sex   | age | phone       |
+----+-----+-----+-----+-----+
| 4  | 陈一   | Male | 28  | 111-111-1111 |
| 5  | 陈二   | Female | 26  | 222-222-2222 |
| 6  | 陈三   | Male | 24  | 333-333-3333 |
+----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> SELECT AVG(age) AS average_age FROM user;
+-----+
| average_age |
+-----+
| 26.0000     |
+-----+
1 row in set (0.00 sec)

MySQL 8.0 Command Line CLI
+-----+
| average_age |
+-----+
| 26.0000     |
+-----+
1 row in set (0.00 sec)

mysql> CREATE TABLE team (
  -> id INT PRIMARY KEY AUTO_INCREMENT,
  -> teamName VARCHAR(255)
  -> );
Query OK, 0 rows affected (0.02 sec)

mysql> CREATE TABLE score (
  -> id INT PRIMARY KEY AUTO_INCREMENT,
  -> teamid INT,
  -> userid INT,
  -> score INT,
  -> FOREIGN KEY (teamid) REFERENCES team(id),
  -> FOREIGN KEY (userid) REFERENCES user(id)
  -> );
Query OK, 0 rows affected (0.03 sec)

mysql> INSERT INTO team (teamName)
  -> VALUES ('ECNU');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO score (teamid, userid, score)
  -> VALUES ((SELECT id FROM team WHERE teamName = 'ECNU'), 4, 80),
  -> ((SELECT id FROM team WHERE teamName = 'ECNU'), 5, 90);
Query OK, 2 rows affected (0.01 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> INSERT INTO user (name, sex, age, phone)
  -> VALUES ('赵四', 'Male', 18, '444-444-4444'),
  -> ('王五', 'Female', 17, '555-555-5555');
Query OK, 2 rows affected (0.00 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> INSERT INTO score (teamid, userid, score)
  -> VALUES ((SELECT id FROM team WHERE teamName = 'ECNU'), 6, 70),
  -> ((SELECT id FROM team WHERE teamName = 'ECNU'), 7, 80);
Query OK, 2 rows affected (0.01 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> SELECT u.*
  -> FROM user u
  -> JOIN score s ON u.id = s.userid
  -> JOIN team t ON s.teamid = t.id
```

```
MySQL 8.0 Command Line CUI
mysql> SELECT u.*
-> FROM user u
-> JOIN score s ON u.id = s.userid
-> JOIN team t ON s.teamid = t.id
-> WHERE t.teamName = 'ECNU' AND u.age < 20;
+-----+
| id | name | sex | age | phone |
+-----+
| 7 | 赵四 | Male | 18 | 444-444-4444 |
+-----+
1 row in set (0.00 sec)

mysql> SELECT COALESCE(SUM(s.score), 0) AS total_score
-> FROM team t
-> JOIN score s ON t.id = s.teamid
-> WHERE t.teamName = 'ECNU';
+-----+
| total_score |
+-----+
| 320 |
+-----+
1 row in set (0.00 sec)

mysql> DELETE s FROM score s JOIN user u ON s.userid = u.id WHERE u.name IN ('陈一', '陈二', '陈三');
Query OK, 3 rows affected (0.00 sec)

mysql> DELETE FROM user WHERE name IN ('陈一', '陈二', '陈三');
Query OK, 3 rows affected (0.00 sec)

mysql> |
```