```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| demo               |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.06 sec)
mysql> create database BookZone;
Query OK, 1 row affected (0.03 sec)
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| BookZone           |
| demo               |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.01 sec)
mysql> use Bookzone;
Database changed
mysql> use BookZone;
Database changed
mysql> CREATE TABLE Books(
    -> BookID INT AUTO_INCREMENT PRIMARY KEY,
    -> Title VARCHAR(255) NOT NULL,
    -> Author VARCHAR(255),
    -> Genre VARCHAR(255),
    -> Price DECIMAL(10,2),
    -> PublishDate DATE
    -> );
Query OK, 0 rows affected (0.05 sec)
mysql> SHOW TABLES;
+--------------------+
| Tables_in_bookzone |
+--------------------+
| Books              |
+--------------------+
1 row in set (0.00 sec)
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES
    -> ('The Alchemist','Paulo Coelho','Fiction',400.00, '1998-05-01'),
    ->
    -> ('The Ram','Ram','AutoBiography',4000.00, '2040-02-08'),
    -> ('Animal Farm', 'GG', 'Classics',500.00, '1998-05-06');
Query OK, 3 rows affected (0.06 sec)
Records: 3  Duplicates: 0  Warnings: 0
mysql> SELECT * FROM Books;
+--------+--------------+--------------+--------------+---------+------------+
```

```
| BookID | Title        | Author       | Genre         | Price   | PublishDate |
+--------+--------------+--------------+---------------+---------+-------------+
|      1 | The Alchemist | Paulo Coelho | Fiction      |  400.00 | 1998-05-01  |
|      2 | The Ram      | Ram          | AutoBiography | 4000.00 | 2040-02-08  |
|      3 | Animal Farm  | GG           | Classics      |  500.00 | 1998-05-06  |
+--------+--------------+--------------+---------------+---------+-------------+
3 rows in set (0.01 sec)
mysql> SELECT Title, Author FROM Books;
+--------------+--------------+
| Title        | Author       |
+--------------+--------------+
| The Alchemist | Paulo Coelho |
| The Ram      | Ram          |
| Animal Farm  | GG           |
+--------------+--------------+
3 rows in set (0.00 sec)
mysql> SELECT * FROM Books WHERE Price > 400.00;
+--------+-------------+--------+---------------+---------+-------------+
| BookID | Title       | Author | Genre         | Price   | PublishDate |
+--------+-------------+--------+---------------+---------+-------------+
|      2 | The Ram     | Ram    | AutoBiography | 4000.00 | 2040-02-08  |
|      3 | Animal Farm | GG     | Classics      |  500.00 | 1998-05-06  |
+--------+-------------+--------+---------------+---------+-------------+
2 rows in set (0.01 sec)
mysql> UPDATE Books
    -> Author = 'George Orwell'
    -> WHERE Title = 'Animal Farm';
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 '= 'George Orwell'
WHERE Title = 'Animal Farm'' at line 2
mysql> UPDATE Books SET Author = 'George Orwell' WHERE Title = 'Animal Farm';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0
mysql> SELECT * FROM Books;
+--------+--------------+--------------+---------------+---------+-------------+
| BookID | Title        | Author       | Genre         | Price   | PublishDate |
+--------+--------------+--------------+---------------+---------+-------------+
|      1 | The Alchemist | Paulo Coelho  | Fiction      |  400.00 | 1998-05-01  |
|      2 | The Ram      | Ram          | AutoBiography | 4000.00 | 2040-02-08  |
|      3 | Animal Farm  | George Orwell | Classics     |  500.00 | 1998-05-06  |
+--------+--------------+--------------+---------------+---------+-------------+
3 rows in set (0.00 sec)
mysql> DELETE FROM Books
    -> WHERE BookID = 3;
Query OK, 1 row affected (0.01 sec)
mysql> SELECT * FROM Books;
+--------+--------------+--------------+---------------+---------+-------------+
| BookID | Title        | Author       | Genre         | Price   | PublishDate |
+--------+--------------+--------------+---------------+---------+-------------+
|      1 | The Alchemist | Paulo Coelho | Fiction      |  400.00 | 1998-05-01  |
|      2 | The Ram      | Ram          | AutoBiography | 4000.00 | 2040-02-08  |
+--------+--------------+--------------+---------------+---------+-------------+
2 rows in set (0.01 sec)
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES
```

```
    -> ('Animal Farm','George Orwell','Fiction',500.00, '1998-05-01');
Query OK, 1 row affected (0.02 sec)
mysql> DELETE FROM Books WHERE BookID = 2;
Query OK, 1 row affected (0.01 sec)
mysql> SELECT * FROM Books;
+--------+--------------+--------------+---------+--------+-------------+
| BookID | Title        | Author       | Genre   | Price  | PublishDate |
+--------+--------------+--------------+---------+--------+-------------+
|      1 | The Alchemist | Paulo Coelho  | Fiction | 400.00 | 1998-05-01  |
|      4 | Animal Farm   | George Orwell | Fiction | 500.00 | 1998-05-01  |
+--------+--------------+--------------+---------+--------+-------------+
2 rows in set (0.00 sec)
mysql> SELECT * FROM Books
    -> ORDER BY Price DESC;
+--------+--------------+--------------+---------+--------+-------------+
| BookID | Title        | Author       | Genre   | Price  | PublishDate |
+--------+--------------+--------------+---------+--------+-------------+
|      4 | Animal Farm   | George Orwell | Fiction | 500.00 | 1998-05-01  |
|      1 | The Alchemist | Paulo Coelho  | Fiction | 400.00 | 1998-05-01  |
+--------+--------------+--------------+---------+--------+-------------+
2 rows in set (0.01 sec)
mysql> SELECT *  FROM Books;
+--------+--------------+--------------+---------+--------+-------------+
| BookID | Title        | Author       | Genre   | Price  | PublishDate |
+--------+--------------+--------------+---------+--------+-------------+
|      1 | The Alchemist | Paulo Coelho  | Fiction | 400.00 | 1998-05-01  |
|      4 | Animal Farm   | George Orwell | Fiction | 500.00 | 1998-05-01  |
+--------+--------------+--------------+---------+--------+-------------+
2 rows in set (0.05 sec)
mysql> SELECT COUNT(*) FROM Books;
+----------+
| COUNT(*) |
+----------+
|        2 |
+----------+
1 row in set (0.01 sec)
mysql> SELECT COUNT(*) AS TotalBooks FROM Books;
+------------+
| TotalBooks |
+------------+
|          2 |
+------------+
1 row in set (0.01 sec)
mysql> SELECT AVG(Price) AS AveragePricve FROM Books;
+---------------+
| AveragePricve |
+---------------+
|    450.000000 |
+---------------+
1 row in set (0.01 sec)
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES
    -> ('Coraline','Neil Gaiman','Horror',800.00, '2002-05-01'),
    -> ('Percy Jackson & the Olympians', 'Rick Riordan','Fantasy Novel','2007-09-01'),
    -> ('3 mistakes of my life', 'Chetan Bhagat','Fantasy','2008-08-01');
```

ERROR 1136 (21S01): Column count doesn't match value count at row 2
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES ('Coraline','Neil Gaiman','Horror',800.00, '2002-05-01'), ('Percy Jackson & the Olympians', 'Rick Riordan','Fantasy Novel','2007-09-01'), ('3 mistakes of my life', 'Chetan Bhagat','Fantasy'450,'2008-08-01');
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 '450,'2008-08-01')' at line 1
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES ('Coraline','Neil Gaiman','Horror',800.00, '2002-05-01'), ('Percy Jackson & the Olympians', 'Rick Riordan','Fantasy Novel','2007-09-01'), ('3 mistakes of my life', 'Chetan Bhagat','Fantasy',450,'2008-08-01');
ERROR 1136 (21S01): Column count doesn't match value count at row 2
mysql> INSERT INTO Books (Title, Author, Genre, Price, PublishDate) VALUES ('Coraline','Neil Gaiman','Horror',800.00, '2002-05-01'), ('Percy Jackson & the Olympians', 'Rick Riordan','Fantasy Novel',500,'2007-09-01'), ('3 mistakes of my life', 'Chetan Bhagat','Fantasy',450,'2008-08-01');
Query OK, 3 rows affected (0.02 sec)
Records: 3 Duplicates: 0 Warnings: 0
mysql> select * from books;

BookID	Title	Author	Genre	Price	PublishDate
1	The Alchemist	Paulo Coelho	Fiction	400.00	1998-05-01
4	Animal Farm	George Orwell	Fiction	500.00	1998-05-01
5	Coraline	Neil Gaiman	Horror	800.00	2002-05-01
6	Percy Jackson & the Olympians	Rick Riordan	Fantasy Novel	500.00	2007-09-01
7	3 mistakes of my life	Chetan Bhagat	Fantasy	450.00	2008-08-01

5 rows in set (0.01 sec)
mysql> SELECT Genre, COUNT(*
    ->) AS TotalBooks FROM Books GROUP BY Genre;

Genre	TotalBooks
Fiction	2
Horror	1
Fantasy Novel	1
Fantasy	1

4 rows in set (0.03 sec)
mysql> SELECT Genre, COUNT(*) FROM Books GROUP BY Genre;

Genre	COUNT(*)
Fiction	2
Horror	1
Fantasy Novel	1
Fantasy	1

4 rows in set (0.00 sec)
mysql> select * from books;

BookID	Title	Author	Genre	Price	PublishDate
1	The Alchemist	Paulo Coelho	Fiction	400.00	1998-05-01
4	Animal Farm	George Orwell	Fiction	500.00	1998-05-01
5	Coraline	Neil Gaiman	Horror	800.00	2002-05-01

```
|      6 | Percy Jackson & the Olympians | Rick Riordan  | Fantasy Novel | 500.00 | 2007-09-01 |
|      7 | 3 mistakes of my life        | Chetan Bhagat | Fantasy       | 450.00 | 2008-08-01 |
+--------+------------------------------+---------------+---------------+--------+------------+
5 rows in set (0.01 sec)
mysql> CREATE TABLE Customers (
    ->     CustomerID INT AUTO_INCREMENT PRIMARY KEY,
    ->     Name VARCHAR(255),
    ->     Email VARCHAR(255),
    ->     JoinedDate DATE
    -> );
Query OK, 0 rows affected (0.04 sec)
mysql> INSERT INTO Customers (Name, Email, JoinedDate)
    -> VALUES
    ->     ('Alice', 'alice@example.com', '2024-01-01'),
    ->     ('Bob', 'bob@example.com', '2024-01-15');
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0
mysql> SELECT * FROM CUSTOMERS;
+------------+-------+-------------------+------------+
| CustomerID | Name  | Email             | JoinedDate |
+------------+-------+-------------------+------------+
|          1 | Alice | alice@example.com | 2024-01-01 |
|          2 | Bob   | bob@example.com   | 2024-01-15 |
+------------+-------+-------------------+------------+
2 rows in set (0.00 sec)
mysql> SELECT c.Name AS CustomerName, b.Title AS BookPurchased
    -> FROM Customers c
    -> JOIN Purchases p ON c.CustomerID = p.CustomerID
    -> JOIN Books b ON p.BookID = b.BookID;
ERROR 1146 (42S02): Table 'bookzone.purchases' doesn't exist
mysql> SELECT c.Name AS CustomerName, b.Title AS BookPurchased
    -> FROM Customers c
    -> JOIN Purchases p ON c.CustomerID = p.CustomerID
    -> JOIN Books b ON p.BookID = b.BookID;
ERROR 1146 (42S02): Table 'bookzone.purchases' doesn't exist
mysql> SELECT * FROM Books;
+--------+------------------------------+---------------+---------------+--------+------------+
| BookID | Title                        | Author        | Genre         | Price  | PublishDate |
+--------+------------------------------+---------------+---------------+--------+------------+
|      1 | The Alchemist                | Paulo Coelho  | Fiction       | 400.00 | 1998-05-01 |
|      4 | Animal Farm                  | George Orwell | Fiction       | 500.00 | 1998-05-01 |
|      5 | Coraline                     | Neil Gaiman   | Horror        | 800.00 | 2002-05-01 |
|      6 | Percy Jackson & the Olympians | Rick Riordan  | Fantasy Novel | 500.00 | 2007-09-01 |
|      7 | 3 mistakes of my life        | Chetan Bhagat | Fantasy       | 450.00 | 2008-08-01 |
+--------+------------------------------+---------------+---------------+--------+------------+
5 rows in set (0.01 sec)
mysql> SELECT * FROM Customers;
+------------+-------+-------------------+------------+
| CustomerID | Name  | Email             | JoinedDate |
+------------+-------+-------------------+------------+
|          1 | Alice | alice@example.com | 2024-01-01 |
|          2 | Bob   | bob@example.com   | 2024-01-15 |
+------------+-------+-------------------+------------+
2 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Purchase(
    -> PurchaseID INT AUTO_INCREMENT PRIMARY KEY,
    -> BookID INT,
    -> CustomerID INT,
    -> PurchaseDate DATE,
    -> FOREIGN KEY (BookID) REFERENCES Books(BookID),
    -> FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID));
Query OK, 0 rows affected (0.05 sec)
mysql> INSERT INTO Purchase(BookID, CustomerID, PurchaseDate) Values
    -> (1,1,'2024-01-01),
    '> (2,2,'2024-02-02);
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 '2024-02-02)' at line 3
mysql> INSERT INTO Purchase(BookID, CustomerID, PurchaseDate) Values (1,1,'2024-01-01'),
(2,2,'2024-02-02');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`bookzone`.`purchase`,
CONSTRAINT `purchase_ibfk_1` FOREIGN KEY (`BookID`) REFERENCES `books` (`BookID`))
mysql> INSERT INTO Purchase(BookID, CustomerID, PurchaseDate) Values (1,1,'2024-01-01'), (2,2,'2ERROR 1452
(23000): Cannot add or update a child row: a foreign key constraint fails (`bookzone`.`purchase`, CONSTRAINT
`purchase_ibfk_1` FOREIGN KEY (`BookID`) REFERENCES `books` (`BookID`))
mysql> INSERT INTO Purchase(BookID, CustomerID, PurchaseDate) Values (1,1,'2024-01-01'), (2,2,'2024-02-02');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`bookzone`.`purchase`,
CONSTRAINT `purchase_ibfk_1` FOREIGN KEY (`BookID`) REFERENCES `books` (`BookID`))
mysql> CREATE TABLE Purchase(
    ->    -> PurchaseID INT AUTO_INCREMENT PRIMARY KEY,
    ->    -> BookID INT,
    ->    -> CustomerID INT,
    ->    -> PurchaseDate DATE,
    ->    -> FOREIGN KEY (BookID) REFERENCES Books(BookID),
    ->    -> FOREIGN KEY (CustomerID
    ->
    ->
    ->
    -> ^C
mysql> Select * from Books;
+--------+-----------------------------+--------------+--------------+--------+------------+
| BookID | Title                       | Author       | Genre        | Price  | PublishDate |
+--------+-----------------------------+--------------+--------------+--------+------------+
|      1 | The Alchemist               | Paulo Coelho | Fiction      | 400.00 | 1998-05-01 |
|      4 | Animal Farm                 | George Orwell | Fiction     | 500.00 | 1998-05-01 |
|      5 | Coraline                    | Neil Gaiman  | Horror       | 800.00 | 2002-05-01 |
|      6 | Percy Jackson & the Olympians | Rick Riordan | Fantasy Novel | 500.00 | 2007-09-01 |
|      7 | 3 mistakes of my life       | Chetan Bhagat | Fantasy     | 450.00 | 2008-08-01 |
+--------+-----------------------------+--------------+--------------+--------+------------+
5 rows in set (0.04 sec)
mysql> SELECT * from Customers;
+------------+-------+------------------+------------+
| CustomerID | Name  | Email            | JoinedDate |
+------------+-------+------------------+------------+
|          1 | Alice | alice@example.com | 2024-01-01 |
|          2 | Bob   | bob@example.com   | 2024-01-15 |
+------------+-------+------------------+------------+
2 rows in set (0.00 sec)
mysql> INSERT INTO Purchase(BookID, CustomerID, PurchaseDate) Values (1,1,'2024-01-01'), (4,2,'2024-02-02');
```

```
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0
mysql> SELECT * FROM Purchase;
+------------+--------+------------+--------------+
| PurchaseID | BookID | CustomerID | PurchaseDate |
+------------+--------+------------+--------------+
|          7 |      1 |          1 | 2024-01-01   |
|          8 |      4 |          2 | 2024-02-02   |
+------------+--------+------------+--------------+
2 rows in set (0.00 sec)
mysql> CREATE INDEX idx_genre on Books(Genre);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0
mysql> CREATE PROCEDURE GetBooksByGenre(IN genreName VARCHAR(50))
    -> BEGIN
    -> SELECT * FROM Books
    -> WHERE Genre = genreName
    -> END;
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 'END' at line 5
mysql> CREATE PROCEDURE GetBooksByGenre(IN genreName VARCHAR(50)) BEGIN  SELECT * FROM Books
WHERE Genre = genreName END//
    -> ^C
mysql> //
    -> CREATE PROCEDURE GetBooksByGenre(IN genreName VARCHAR(50)) BEGIN  SELECT * FROM Books
WHERE Genre = genreName END//;
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 '//
CREATE PROCEDURE GetBooksByGenre(IN genreName VARCHAR(50)) BEGIN  SELECT * FR' at line 1
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE GetBooksByGenre(IN genreName VARCHAR(100))
    -> BEGIN
    ->     SELECT * FROM Books
    ->     WHERE Genre = genreName;
    -> END //
Query OK, 0 rows affected (0.03 sec)
mysql>
mysql> DELIMITER ;
mysql>
mysql> CALL GetBooksByGenre('Horror');
+--------+----------+-------------+--------+--------+-------------+
| BookID | Title    | Author      | Genre  | Price  | PublishDate |
+--------+----------+-------------+--------+--------+-------------+
|      5 | Coraline | Neil Gaiman | Horror | 800.00 | 2002-05-01  |
+--------+----------+-------------+--------+--------+-------------+
1 row in set (0.01 sec)
Query OK, 0 rows affected (0.01 sec)
mysql> CALL GetBooksByGenre('Fantasy');
+--------+----------------------+--------------+---------+--------+-------------+
| BookID | Title                | Author       | Genre   | Price  | PublishDate |
+--------+----------------------+--------------+---------+--------+-------------+
|      7 | 3 mistakes of my life | Chetan Bhagat | Fantasy | 450.00 | 2008-08-01  |
+--------+----------------------+--------------+---------+--------+-------------+
```

1 row in set (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
mysql> show Index on books;
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 'on books' at line 1
mysql> show Index from books;

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
Books	0	PRIMARY	1	BookID	A	5	NULL	NULL		BTREE			YES	NULL
Books	1	idx_genre	1	Genre	A	4	NULL	NULL	YES	BTREE			YES	NULL

2 rows in set (0.03 sec)
mysql>