

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

```
mysql> create database hospital;
Query OK, 1 row affected (0.02 sec)
```

```
mysql> use hospital;
Database changed
```

```
mysql> CREATE TABLE patients (
  ->     patient_id INT PRIMARY KEY,
  ->     name VARCHAR(50),
  ->     doctor_id INT
  -> );
Query OK, 0 rows affected (0.08 sec)
```

```
mysql> CREATE TABLE doctors (
  ->     doctor_id INT PRIMARY KEY,
  ->     doctor_name VARCHAR(50),
  ->     specialization VARCHAR(50)
  -> );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> show tables;
+-----+
| Tables_in_hospital |
+-----+
| doctors             |
| patients            |
+-----+
2 rows in set (0.01 sec)
```

```
mysql> INSERT INTO patients (patient_id, name, doctor_id) VALUES
  -> (1, 'John Doe', 101),
  -> (2, 'Jane Smith', 102),
  -> (3, 'Alex Brown', NULL),
  -> (4, 'Emma White', 104);
Query OK, 4 rows affected (0.02 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO doctors (doctor_id, doctor_name, specialization) VALUES
  -> (101, 'Dr. Adams', 'Cardiology'),
  -> (102, 'Dr. Blake', 'Neurology'),
```

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> INSERT INTO doctors (doctor_id, doctor_name, specialization) VALUES
```

```
-> (101, 'Dr. Adams', 'Cardiology'),  
-> (102, 'Dr. Blake', 'Neurology'),  
-> (103, 'Dr. Clark', 'Orthopedics'),  
-> (104, 'Dr. Davis', 'Dermatology');
```

Query OK, 4 rows affected (0.01 sec)

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> select* from patients;
```

patient_id	name	doctor_id
1	John Doe	101
2	Jane Smith	102
3	Alex Brown	NULL
4	Emma White	104

4 rows in set (0.00 sec)

```
mysql> select * from doctors;
```

doctor_id	doctor_name	specialization
101	Dr. Adams	Cardiology
102	Dr. Blake	Neurology
103	Dr. Clark	Orthopedics
104	Dr. Davis	Dermatology

4 rows in set (0.00 sec)

```
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
```

```
-> FROM patients p
```

```
-> INNER JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
Emma White	Dr. Davis	Dermatology

4 rows in set (0.00 sec)

```
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> INNER JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
Emma White	Dr. Davis	Dermatology

3 rows in set (0.00 sec)

```
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> LEFT JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
Alex Brown	NULL	NULL
Emma White	Dr. Davis	Dermatology

4 rows in set (0.00 sec)

```
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> RIGHT JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
NULL	Dr. Clark	Orthopedics
Emma White	Dr. Davis	Dermatology

4 rows in set (0.00 sec)

```
mysql> -- LEFT JOIN part
```

MySQL 8.0 Command Line Cli X

Alex Brown	NULL	NULL
Emma White	Dr. Davis	Dermatology

```
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> RIGHT JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
NULL	Dr. Clark	Orthopedics
Emma White	Dr. Davis	Dermatology

```
mysql> -- LEFT JOIN part
mysql> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> LEFT JOIN doctors d ON p.doctor_id = d.doctor_id
->
-> UNION
->
-> -- RIGHT JOIN part
-> SELECT p.name AS patient_name, d.doctor_name, d.specialization
-> FROM patients p
-> RIGHT JOIN doctors d ON p.doctor_id = d.doctor_id;
```

patient_name	doctor_name	specialization
John Doe	Dr. Adams	Cardiology
Jane Smith	Dr. Blake	Neurology
Alex Brown	NULL	NULL
Emma White	Dr. Davis	Dermatology
NULL	Dr. Clark	Orthopedics