```
addweb@LP-127:~$ sudo /opt/lampp/lampp start
[sudo] password for addweb:
Starting XAMPP for Linux 8.0.11-2...
XAMPP: Starting Apache...already running.
XAMPP: Starting MySQL...already running.
XAMPP: Starting ProFTPD...already running.
addweb@LP-127:~$ /opt/lampp/bin/mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with; or \g.
Your MariaDB connection id is 394
Server version: 10.4.21-MariaDB Source distribution
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> show databases;
+----+
| Database
+----+
admin_panel
anjani
ecommerce
information_schema |
mysql
performance_schema |
phpmyadmin
queries_anjani
| test |
9 rows in set (0.004 sec)
MariaDB [(none)]> create database terminal_data
  ->;
Query OK, 1 row affected (0.001 sec)
MariaDB [(none)]> show databases;
+----+
| Database
+----+
admin_panel
anjani
ecommerce
information_schema |
mysql
performance_schema |
phpmyadmin
queries_anjani
| terminal_data
test
10 rows in set (0.000 sec)
```

```
MariaDB [(none)]> use terminal_data;
Database changed
MariaDB [terminal data]> show tables:
Empty set (0.000 \text{ sec})
MariaDB [terminal_data] > create table student(s_id INT NOT NULL AUTO_INCREMENT,
 -> s name VARCHAR(50) NOT NULL,
 -> s email VARCHAR(50) NOT NULL,
 -> s_pwd VARCHAR(10) NOT NULL,
 -> PRIMARY KEY(s id)
 -> ):
Query OK, 0 rows affected (0.017 sec)
MariaDB [terminal_data] > show tables;
+____+
| Tables_in_terminal_data |
+----+
1 row in set (0.001 sec)
MariaDB [terminal data] > INSERT INTO student(s name, s email, s pwd)
VALUES('anjani', 'anjani@gmail.com', '123');
Query OK, 1 row affected (0.007 sec)
MariaDB [terminal data]> select * from student;
+----+
| s_id | s_name | s_email | s_pwd |
+----+
| 1 | anjani | anjani@gmail.com | 123 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal data] > INSERT INTO student(s name, s email, s pwd)
VALUES('rakhi', 'rakhi@gmail.com', '456');
Query OK, 1 row affected (0.004 sec)
MariaDB [terminal_data] > SELECT * FROM student WHERE s_id=
 -> '1';
+----+
| s_id | s_name | s_email | s_pwd |
+----+
| 1 | anjani | anjani@gmail.com | 123 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal data] > select s name from student;
+----+
s name
+----+
| anjani |
```

```
| rakhi |
+----+
2 rows in set (0.001 sec)
MariaDB [terminal data]> create table customers(customerID INT NOT NULL
AUTO INCREMENT,
 -> customerName VARCHAR(50) NOT NULL,
 -> contactNumber BIGINT(10) NOT NULL,
 -> Address VARCHAR(100) NOT NULL,
 -> City VARCHAR(30) NOT NULL,
 -> PinCode BIGINT(20) NOT NULL,
 -> Country VARCHAR(30) NOT NULL,
 -> PRIMARY KEY(customerID) ):
Query OK, 0 rows affected (0.012 sec)
MariaDB [terminal data]> show tables;
+----+
| Tables_in_terminal_data |
+----+
customers
student
+----+
2 rows in set (0.000 sec)
MariaDB [terminal data] > INSERT INTO customers(customerName, contactNumber, Address,
City, PinCode, Country) VALUES('anjani', '8488057116', '12
swamibapa', 'ahmedabad', '380024', 'india');
Query OK, 1 row affected (0.008 sec)
MariaDB [terminal_data]> select * from customers;
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
+-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
+-----+----+-----+-----+-----+-----+
1 row in set (0.001 sec)
MariaDB [terminal data] > INSERT INTO customers(customerName, contactNumber, Address,
City, PinCMariaDB [terminal_data]> INSERT INTO customers(customerName, contactNumber,
Address, City, PinCode, Country) VALUES('rani', '8488057886', 'matti keskuskatu
45', 'helsinki', '21240', 'finland');
Query OK, 1 row affected (0.003 sec)
MariaDB [terminal_data] > INSERT INTO customers(customerName, contactNumber, Address,
City, PinCode, Country) VALUES('rishi','8488227886','ul filtrowa 68','walla','01022','poland');
Query OK, 1 row affected (0.005 sec)
MariaDB [terminal_data]> select * from customers;
+----+
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
+-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
```

```
8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
    3 | rishi
             | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal data]> select customerName, City, Country from customers;
+----+
| customerName | City | Country |
+----+
       | ahmedabad | india |
anjani
rani
       | helsinki | finland |
      | walla | poland |
| rishi
+----+
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal data] > INSERT INTO customers(customerName, contactNumber, Address,
City, PinCode, Country) VALUES('rishi', '8488227886', 'ul filtrowa 68', 'walla', '01022', 'poland');
Query OK, 1 row affected (0.004 sec)
MariaDB [terminal data]> select * from customers;
+-----+
| customerID | customerName | contactNumber | Address
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
               8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
    2 | rani
    3 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
+-----+
4 rows in set (0.001 \text{ sec})
MariaDB [terminal data] > SELECT DISTINCT Country FROM customers;
+----+
| Country |
+----+
| india |
| finland |
| poland |
+----+
3 rows in set (0.001 sec)
MariaDB [terminal data] > select * from customers where Country="poland" AND City="walla";
| customerID | customerName | contactNumber | Address
                                          | City | PinCode | Country |
3 | rishi
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
2 rows in set (0.001 sec)
MariaDB [terminal_data] > select * from customers where Country="poland" OR
City="ahmedabad";
```

```
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    3 | rishi
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    4 | rishi
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal_data] > select * from customers where not Country="poland";
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    2 | rani | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
+-----+
2 rows in set (0.001 sec)
MariaDB [terminal_data]> select * from customers order by Country;
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
            8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
    2 | rani
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    3 | rishi
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
4 rows in set (0.001 sec)
MariaDB [terminal_data] > select * from customers order by Country desc;
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
    3 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    2 | rani | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
+-----+
4 rows in set (0.001 sec)
MariaDB [terminal_data] > select * from customers order by Country, customerName;
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
            | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
    2 | rani
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    3 | rishi
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
 -----+
4 rows in set (0.001 sec)
```

MariaDB [terminal_data]> update customers set customerName='nisha' where customerID='2'; Query OK, 1 row affected (0.003 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [terminal data] > select * from customers;

```
+-----+
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    3 | rishi
    4 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
+----+
4 rows in set (0.001 sec)
MariaDB [terminal_data]> delete from customers where customerID='4';
Query OK, 1 row affected (0.005 sec)
MariaDB [terminal data]> select * from customers:
+-----+
| customerID | customerName | contactNumber | Address | City | PinCode | Country | +-----+
    1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    2 | nisha
            | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
            | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
    3 | rishi
+-----+----+-----+-----+------+-------+
3 rows in set (0.001 sec)
MariaDB [terminal data] > select * from customers limit 2;
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
| 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    1 | aniani
   2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
2 rows in set (0.001 sec)
MariaDB [terminal data] > alter table customers add salary bigint(40) not null after Country;
Query OK, 0 rows affected (0.008 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [terminal_data] > show tables;
+----+
| Tables_in_terminal_data |
+----+
customers
2 rows in set (0.001 sec)
MariaDB [terminal_data]> select * from customers;
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
salary |
```

```
+-----+
     1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india |
    2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland |
    3 | rishi
             | 8488227886 | ul filtrowa 68 | walla | 1022 | poland |
+-----+
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal data]> update customers set salary=20000 where customerID='1';
Query OK, 1 row affected (0.004 sec)
Rows matched: 1 Changed: 1 Warnings: 0
MariaDB [terminal data] > update customers set salary=30000 where customerID='2';
Query OK, 1 row affected (0.004 sec)
Rows matched: 1 Changed: 1 Warnings: 0
MariaDB [terminal data]> update customers set salary=25000 where customerID='3';
Query OK, 1 row affected (0.004 sec)
Rows matched: 1 Changed: 1 Warnings: 0
MariaDB [terminal data]> select * from customers:
+-----+
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
salary |
1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india | 20000 |
     2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland | 30000 |
    3 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland | 25000 |
+-----+
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal data] > select MIN(salary) as LowSalary from customers;
+----+
| LowSalary |
+----+
  20000 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal data] > select MAX(salary) as HighSalary from customers;
+----+
| HighSalary |
+----+
  30000 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal_data] > select COUNT(customerID) from customers;
+----+
| COUNT(customerID) |
+----+
        3 |
```

```
MariaDB [terminal data] > select AVG(salary) from customers;
+----+
| AVG(salary) |
+----+
| 25000.0000 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal_data]> select SUM(salary) from customers;
+----+
| SUM(salarv) |
+----+
  75000 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal data]> select * from customers where customerName LIKE 'a%';
| customerID | customerName | contactNumber | Address | City | PinCode | Country | salary |
+-----+
   1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india | 20000 |
+-----+
1 row in set (0.001 sec)
MariaDB [terminal data] > select * from customers where customerName LIKE '%a';
| customerID | customerName | contactNumber | Address | City | PinCode | Country |
salary |
+----+
   2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland | 30000 |
1 row in set (0.001 sec)
MariaDB [terminal_data] > select * from customers where customerName LIKE '_r%';
Empty set (0.001 \text{ sec})
MariaDB [terminal data] > select * from customers where City LIKE ' h edabad';
| customerID | customerName | contactNumber | Address | City | PinCode | Country | salary |
1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india | 20000 |
+----+
1 row in set (0.001 sec)
MariaDB [terminal_data] > select * from customers where Country IN ('india', 'finland');
| customerID | customerName | contactNumber | Address
                                     | City | PinCode | Country |
salary |
```

1 row in set (0.001 sec)

```
+-----+
   1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india | 20000 |
   2 | nisha | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland | 30000 |
2 rows in set (0.001 sec)
MariaDB [terminal data] > select * from customers where Country NOT IN ('india', 'finland');
| customerID | customerName | contactNumber | Address | City | PinCode | Country | salary |
3 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland | 25000 |
1 row in set (0.000 sec)
MariaDB [terminal data] > select * from customers where salary BETWEEN 23000 AND 26000;
| customerID | customerName | contactNumber | Address
                                | City | PinCode | Country | salary |
3 | rishi | 8488227886 | ul filtrowa 68 | walla | 1022 | poland | 25000 |
1 row in set (0.001 sec)
MariaDB [terminal_data]> select * from customers where salary NOT BETWEEN 23000 AND
+-----+
salary |
+-----+
   1 | anjani | 8488057116 | 12 swamibapa | ahmedabad | 380024 | india | 20000 |
   2 | nisha
          | 8488057886 | matti keskuskatu 45 | helsinki | 21240 | finland | 30000 |
+-----+
2 rows in set (0.001 sec)
MariaDB [terminal_data] > select * from customers where salary BETWEEN 23000 AND 26000
AND customerID NOT IN (1,3);
Empty set (0.000 \text{ sec})
MariaDB [terminal data] > select customerID as ID from customers:
+---+
| ID |
+---+
| 1 |
2 |
| 3 |
3 \text{ rows in set } (0.001 \text{ sec})
```

```
MariaDB [terminal data] > create table orders( orderId int NOT NULL AUTO INCREMENT
PRIMARY KEY, c id int NOT NULL, order date date NOT NULL);
Query OK, 0 rows affected (0.015 sec)
MariaDB [terminal_data] > insert into orders(c_id,order_date) values('1','2021-08-12');
Query OK, 1 row affected (0.004 sec)
MariaDB [terminal data] > insert into orders(c id, order date) values('2', '2021-05-14');
Query OK, 1 row affected (0.004 sec)
MariaDB [terminal_data]> insert into orders(c_id,order_date) values('3','2020-05-14');
Query OK, 1 row affected (0.005 sec)
MariaDB [terminal data] > select * from orders;
+----+
| orderId | c id | order date |
+----+
    1 | 1 | 2021-08-12 |
    2 | 2 | 2021-05-14 |
    3 | 3 | 2020-05-14 |
+----+
3 \text{ rows in set } (0.000 \text{ sec})
MariaDB [terminal data] > select orders.orderId, customers.customerName, orders.order date from
orders inner join customers on orders.c id=customers.customerID;
+----+
| orderId | customerName | order date |
+----+
               | 2021-08-12 |
    1 | anjani
    2 | nisha
               | 2021-05-14 |
               | 2020-05-14 |
    3 | rishi
+----+
3 \text{ rows in set } (0.001 \text{ sec})
MariaDB [terminal_data] > select customers.customerName, orders.orderId
  -> from customers
  -> left join orders on customers.customerID=orders.c_id
  -> order by customers.customerName:
+----+
| customerName | orderId |
+----+
anjani
              1 |
              2 |
| nisha
rishi
             3 |
```

3 rows in set (0.000 sec)

MariaDB [terminal data] > select orders.orderId, customers.customerName from orders right join customers on orders.c_id=customers.customerID order by orders.orderID; +----+ | orderId | customerName | +----+ 1 | anjani 2 | nisha 3 | rishi 3 rows in set (0.001 sec)MariaDB [terminal data]> select customers.customerName, orders.orderId -> from customers -> cross join orders; +----+ | customerName | orderId | +----+ 1 | anjani 1 | nisha rishi 1 | 2 | anjani nisha 2 | rishi 2 | 3 | anjani nisha 3 | | rishi 3 | 9 rows in set (0.001 sec) MariaDB [terminal_data]> select A.customerName as customername1, B.customerName as customername2, A.City -> from customers A, customers B -> where A.customerID <> B.customerID -> and A.City = B.City -> order by A.City; Empty set (0.001 sec) MariaDB [terminal data] > select City from customers union select c id from orders; +----+ | City | +----+ | ahmedabad | | helsinki | walla | 1 2 13

6 rows in set (0.001 sec)

MariaDB [terminal_data]> insert into customers(customerName,contactNumber,Address,City,PinCode,Country,Salary) values('rajvi','8888888888', 'swamibapa','ahmedabad','380024','india','22000'); Query OK, 1 row affected (0.003 sec)

MariaDB [terminal_data]> select * from customers; ++++
customerID customerName contactNumber Address City PinCode Country salary
1 anjani
4 rows in set (0.001 sec)
MariaDB [terminal_data]> select count(customerID), Country -> from customers -> group by country; ++
count(customerID)
1 finland 2 india 1 poland ++ 3 rows in set (0.001 sec)
MariaDB [terminal_data]> select a.customerName as customername1, b.customerName as customername2, a.City -> from customers a,customers b -> where a.customerID <> b.customerID -> and a.City = b.City -> order by a.city; ++
customername1 customername2 City
++ rajvi
2 rows in set (0.003 sec)

numberoforders from orders left join customers on orders.c_id=customers.customerID group by customerName; +----+ | customerName | numberoforders | +----+ anjani 1 | 1 | | nisha 1 | rishi 3 rows in set (0.001 sec) MariaDB [terminal data]> select count(customerID), Country -> from customers -> group by Country -> having count(customerID)>1; +----+ | count(customerID) | Country | +----+ 2 | india | +----+ 1 row in set (0.001 sec) MariaDB [terminal_data] > select customerName from customers where exists (select order_date from orders where orders.c_id=customers.customerID and salary >18000); +----+ | customerName | +----+ anjani nisha rishi +----+ 3 rows in set (0.002 sec)MariaDB [terminal_data]> select customerName from customers where customerID = any (select c id from orders); +----+ | customerName | +----+ anjani nisha | rishi +----+ 3 rows in set (0.001 sec)MariaDB [terminal_data] > select all customerName from customers where true; +----+ | customerName | +----+ anjani | nisha

MariaDB [terminal data] > select customers.customerName, count(orders.orderId) as

```
| rishi
rajvi
+----+
4 rows in set (0.001 sec)
MariaDB [terminal_data]> select customerName from customers
  -> where customerID=all (select c_id from orders);
Empty set (0.001 sec)
MariaDB [terminal_data]> select customerName from customers where customerID=all (select c_id
from orders where orderId=1);
+----+
| customerName |
+----+
anjani |
+----+
1 row in set (0.001 sec)
MariaDB [terminal_data]> insert into student(s_name,s_email,s_pwd) select
customerName,contactNumber,city from customers;
Query OK, 4 rows affected (0.004 sec)
Records: 4 Duplicates: 0 Warnings: 0
MariaDB [terminal_data]> select * from student;
+----+
| s_id | s_name | s_email
                         s_pwd |
+----+
  1 | anjani | anjani@gmail.com | 123
  2 | rakhi | rakhi@gmail.com | 456
  3 | anjani | 8488057116
                         | ahmedabad |
  4 | nisha | 8488057886
                         | helsinki |
  5 | rishi | 8488227886
                        walla
  6 | rajvi | 8888888888
                        | ahmedabad |
+----+
6 rows in set (0.000 sec)
```