```
- sudo /opt/lampp/lampp start
-/opt/lampp/bin/mysql -u root -p
- create database tempinterminal;
----> MariaDB [(none)]> show databases:
+----+
| Database
+----+
| Admin Panel
Company
School
abc
ecommerce
information_schema |
mysql
performance_schema |
phpmyadmin
tempinterminal |
test
+----+
11 rows in set (0.001 sec)
----> MariaDB [(none)]> use tempinterminal;
Database changed
---->MariaDB [tempinterminal]> 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(50) NOT NULL,
 -> PRIMARY KEY(s_id));
Query OK, 0 rows affected (0.011 sec)
---->MariaDB [tempinterminal]> show tables;
+----+
| Tables_in_tempinterminal |
+----+
student
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values(1,'shreya','shreya@gmail.com','shreya123');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values(1,'shreya','shreya@gmail.com','shreya123');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values(2,'avani','avani@gmail.com','avani123');
Query OK, 1 row affected (0.003 sec)
```

```
---->MariaDB [tempinterminal]> INSERT INTO student values(3,'riya','riya@gmail.com','riya123');
Query OK, 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values(4,'shriya','shriya@gmail.com','shriya123');
Query OK, 1 row affected (0.002 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values('anjani', 'anjani@gmail.com', 'anjani123');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
---->MariaDB [tempinterminal]> INSERT INTO student
values(5, 'anjani', 'anjani@gmail.com', 'anjani123');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO student
values(6,'kajal','kajal@gmail.com','kajal123');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> SELECT * FROM student;
+----+
1 | shreya | shreya@gmail.com | shreya123 |
  2 | avani | avani@gmail.com | avani123 |
  3 | riya | riya@gmail.com | riya123 |
  4 | shriya | shriya@gmail.com | shriya123 |
  5 | anjani | anjani@gmail.com | anjani123 |
  6 | kajal | kajal@gmail.com | kajal123 |
+----+
6 rows in set (0.001 \text{ sec})
---->MariaDB [tempinterminal]> create table customer(c_id INT NOT NULL
AUTO_INCREMENT, c_name VARCHAR(50) NOT NULL, c_contactno INT(10) NOT NULL,
c_address VARCHAR(100) NOT NULL,c_city VARCHAR(50), c_pincode BIGINT(20), c_counry
VARCHAR(50), PRIMARY KEY(c id));
Query OK, 0 rows affected (0.013 sec)
---->MariaDB [tempinterminal]> INSERT INTO customer values (1,'shreva', '908765432',
'ABC123', 'Ahmedabad', '382350', 'India');
Query OK, 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO customer values (2, 'avni', '908765431', 'XYZ123',
'mumbai', '382230', 'India');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO customer values (3,'riya', '1238765431',
'hgfrte123', 'pune', '323230', 'India');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO customer values (4,'shriya', '1238765431',
'yurteb123', 'banglore', '323230', 'India');
```

```
---->MariaDB [tempinterminal]> INSERT INTO customer values (5, 'anjani', '1238765567',
'vurteb133', 'jaipur', '324530', 'India');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO customer values (6,'kajal', '1238235567',
'yurteb233', 'delhi', '325630', 'India');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer;
+----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+-----+
 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India
  2 | avni | 908765431 | XYZ123 | mumbai | 382230 | India |
  3 | riya | 1238765431 | hgfrte123 | pune | 323230 | India |
  4 | shriva | 1238765431 | yurteb123 | banglore | 323230 | India |
  5 | anjani | 1238765567 | yurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | yurteb233 | delhi | 325630 | India |
+-----+
6 rows in set (0.001 \text{ sec})
---->MariaDB [tempinterminal]> SELECT COUNT(c_country) FROM customer;
+----+
| COUNT(c_counry) |
+----+
   6 |
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_city = 'Ahmedabad';
+-----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+----+
| 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India
+-----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_county = 'India' AND
c_city = 'jaipur';
+----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+----+
| 5 | anjani | 1238765567 | yurteb133 | jaipur | 324530 | India |
+-----+
1 row in set (0.002 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_name = 'anjani' OR
c city = 'delhi';
```

Query OK, 1 row affected (0.004 sec)

```
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+-----+
 5 | anjani | 1238765567 | vurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | yurteb233 | delhi | 325630 | India |
+----+
2 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE NOT c_county = 'India'
AND NOT c_counry = 'USA';
Empty set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer ORDER BY c_city;
+-----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+----+
 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India
 4 | shriya | 1238765431 | yurteb123 | banglore | 323230 | India |
 6 | kajal | 1238235567 | yurteb233 | delhi | 325630 | India |
 5 | anjani | 1238765567 | yurteb133 | jaipur | 324530 | India |
 2 | avni | 908765431 | XYZ123 | mumbai | 382230 | India |
 3 | riya | 1238765431 | hgfrte123 | pune | 323230 | India |
+-----+
6 rows in set (0.001 \text{ sec})
---->MariaDB [tempinterminal]> SELECT * FROM customer ORDER BY c_city DESC;
+-----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+-----+
 3 | riya | 1238765431 | hgfrte123 | pune | 323230 | India |
 2 | avni | 908765431 | XYZ123 | mumbai | 382230 | India |
 5 | anjani | 1238765567 | yurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | yurteb233 | delhi | 325630 | India |
 4 | shriya | 1238765431 | yurteb123 | banglore | 323230 | India |
 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India
+----+
6 rows in set (0.001 \text{ sec})
---->MariaDB [tempinterminal]> INSERT INTO customer values (7, 'krisha', '1238323567',
'yurteb234', 'manali', '325612', 'USA');
---->MariaDB [tempinterminal]> UPDATE customer SET c_name = 'krishna', c_city = 'london'
WHERE c id = 7;
Query OK, 1 row affected (0.004 sec)
Rows matched: 1 Changed: 1 Warnings: 0
---->MariaDB [tempinterminal]> SELECT * FROM customer;
+-----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+-----+
 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India |
 2 | avni | 908765431 | XYZ123 | mumbai | 382230 | India |
```

+----+

```
3 | riya | 1238765431 | hgfrte123 | pune | 323230 | India |
 4 | shriya | 1238765431 | yurteb123 | banglore | 323230 | India
 5 | anjani | 1238765567 | yurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | yurteb233 | delhi | 325630 | India |
 7 | krishna | 1238323567 | yurteb234 | london | 325612 | USA
+----+
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c county = 'India' LIMIT
3:
+----+
| c_id | c_name | c_contactno | c_address | c_city | c_pincode | c_counry |
+----+
 1 | shreya | 908765432 | ABC123 | Ahmedabad | 382350 | India |
 2 | avni | 908765431 | XYZ123 | mumbai | 382230 | India
 3 | riya | 1238765431 | hgfrte123 | pune | 323230 | India |
3 \text{ rows in set } (0.001 \text{ sec})
---->MariaDB [tempinterminal]> ALTER TABLE customer ADD bill amt BIGINT(50) NOT
NULL AFTER c_contactno;
Query OK, 0 rows affected (0.007 sec)
Records: 0 Duplicates: 0 Warnings: 0
---->MariaDB [tempinterminal]> INSERT INTO customer(bill amt) values ('5000');
ERROR 1364 (HY000): Field 'c_name' doesn't have a default value
MariaDB [tempinterminal] > UPDATE customer SET bill amt = '5000' WHERE c id = 1;
Query OK, 1 row affected (0.004 sec)
Rows matched: 1 Changed: 1 Warnings: 0
---->MariaDB [tempinterminal]> SELECT * FROM customer;
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
+----+
 1 | shreya | 908765432 | 5000 | ABC123 | Ahmedabad | 382350 | India
 2 | avni | 908765431 | 3000 | XYZ123 | mumbai | 382230 | India |
 3 | riya | 1238765431 | 7000 | hgfrte123 | pune | 323230 | India |
 4 | shriya | 1238765431 | 10000 | yurteb123 | banglore | 323230 | India |
 5 | anjani | 1238765567 | 12000 | yurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | 10000 | yurteb233 | delhi | 325630 | India |
 7 | krishna | 1238323567 | 14000 | yurteb234 | london | 325612 | USA
7 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT MIN(bill_amt) AS Smallestamount FROM customer;
+----+
| Smallestamount |
+----+
     3000 |
+----+
1 row in set (0.001 sec)
```

---->MariaDB [tempinterminal]> SELECT MAX(bill_amt) AS Highestamount FROM customer;

```
+----+
| Highestamount |
+----+
  14000 |
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT COUNT(c id) FROM customer;
+----+
| COUNT(c_id) |
+----+
  7 |
.
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT AVG(bill amt) FROM customer;
+----+
| AVG(bill amt) |
+----+
8714.2857
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT SUM(bill_amt) FROM customer;
+----+
| SUM(bill amt) |
+----+
  61000
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_name LIKE 'a%';
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
2 | avni | 908765431 | 3000 | XYZ123 | mumbai | 382230 | India
 5 | anjani | 1238765567 | 12000 | yurteb133 | jaipur | 324530 | India
+-----+
2 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_name LIKE '%re%';
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
+-----+
 1 | shreya | 908765432 | 5000 | ABC123 | Ahmedabad | 382350 | India
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_name LIKE '_a%';
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
+----+
```

```
| 6 | kajal | 1238235567 | 10000 | yurteb233 | delhi | 325630 | India |
1 row in set (0.001 sec)
--->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_city LIKE 'l_n_on';
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
| 7 | krishna | 1238323567 | 14000 | yurteb234 | london | 325612 | USA
+----+
1 row in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_city IN
('Ahmedabad','pune','delhi');
+----+
| c id | c name | c contactno | bill amt | c address | c city | c pincode | c counry |
1 | shreya | 908765432 | 5000 | ABC123 | Ahmedabad | 382350 | India
 3 | riya | 1238765431 | 7000 | hgfrte123 | pune | 323230 | India |
 6 | kajal | 1238235567 | 10000 | yurteb233 | delhi | 325630 | India |
+----+
3 \text{ rows in set } (0.001 \text{ sec})
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE c_city NOT IN
('Ahmedabad', 'pune', 'delhi');
| c id | c name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
2 | avni | 908765431 | 3000 | XYZ123 | mumbai | 382230 | India |
 4 | shriya | 1238765431 | 10000 | yurteb123 | banglore | 323230 | India |
 5 | anjani | 1238765567 | 12000 | yurteb133 | jaipur | 324530 | India |
 7 | krishna | 1238323567 | 14000 | yurteb234 | london | 325612 | USA
+----+
4 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE bill amt BETWEEN
'10000' AND '15000';
+-----+
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
+----+
 4 | shriya | 1238765431 | 10000 | yurteb123 | banglore | 323230 | India |
 5 | anjani | 1238765567 | 12000 | yurteb133 | jaipur | 324530 | India |
 6 | kajal | 1238235567 | 10000 | yurteb233 | delhi | 325630 | India |
 7 | krishna | 1238323567 | 14000 | yurteb234 | london | 325612 | USA
+----+
4 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT * FROM customer WHERE bill_amt NOT BETWEEN
'10000' AND '15000';
+-----+
| c_id | c_name | c_contactno | bill_amt | c_address | c_city | c_pincode | c_counry |
+----+
```

```
1 | shreya | 908765432 | 5000 | ABC123 | Ahmedabad | 382350 | India
  2 | avni | 908765431 |
                         3000 | XYZ123 | mumbai | 382230 | India |
 3 | riya | 1238765431 | 7000 | hgfrte123 | pune | 323230 | India
3 \text{ rows in set } (0.001 \text{ sec})
---->create table order_detail(order_id INT NOT NULL AUTO_INCREMENT, c_id INT NOT
NULL, o date DATE NOT NULL, PRIMARY KEY(order id));
Query OK, 0 rows affected (0.015 sec)
---->MariaDB [tempinterminal]> INSERT INTO order detail values(2,2,'2020-06-11');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> INSERT INTO order detail values(3,3,'2020-11-11');
Query OK, 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO order detail values(4,4,'2020-12-23');
Query OK, 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO order detail values(5,5,'2020-08-25');
Query OK, 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO order_detail values(6,6,'2020-09-30');
Ouerv OK. 1 row affected (0.003 sec)
---->MariaDB [tempinterminal]> INSERT INTO order_detail values(7,7,'2020-05-5');
Query OK, 1 row affected (0.004 sec)
---->MariaDB [tempinterminal]> SELECT o.order id, o.o date, c.c name FROM customer AS c,
order_detail AS o WHERE c.c_id = o.order_id;
+----+
order id o date c name
+----+
    1 | 2021-04-01 | shreya |
    2 | 2020-06-11 | avni |
    3 | 2020-11-11 | riva |
    4 | 2020-12-23 | shriya |
    5 | 2020-08-25 | anjani |
    6 | 2020-09-30 | kaial |
    7 | 2020-05-05 | krishna |
   _____+
7 rows in set (0.002 \text{ sec})
---->MariaDB [tempinterminal]> SELECT order_detail.order_id, customer.c_name,
order_detail.o_date FROM order_detail INNER JOIN customer ON order_detail.c_id =
customer.c id;
+----+
| order_id | c_name | o_date
+----+
    1 | shreva | 2021-04-01 |
    2 | avni | 2020-06-11 |
    3 | riya | 2020-11-11 |
```

```
5 | anjani | 2020-08-25 |
    6 | kajal | 2020-09-30 |
    7 | krishna | 2020-05-05 |
+----+
7 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT order_detail.order_id, customer.c_name FROM
customer LEFT JOIN order_detail ON customer.c_id = order_detail.c_id;
+----+
| order id | c name |
+----+
    1 | shreya |
    2 | avni |
    3 | riya |
    4 | shriya |
    5 | anjani |
    6 | kajal |
    7 | krishna |
7 rows in set (0.002 \text{ sec})
---->MariaDB [tempinterminal]> SELECT order_detail.order_id, customer.c_name, customer.c_city
FROM order_detail RIGHT JOIN customer ON order_detail.c_id = customer.c_id ORDER BY
order detail.order id;
+----+
order_id | c_name | c_city |
+----+
    1 | shreya | Ahmedabad |
    2 | avni | mumbai |
    3 | riya | pune
    4 | shriya | banglore |
    5 | anjani | jaipur |
    6 | kajal | delhi
    7 | krishna | london |
+----+
7 rows in set (0.009 sec)
---->MariaDB [tempinterminal]> SELECT customer.c_name, order_detail.order_id FROM
customer CROSS JOIN order_detail;
+----+
| c_name | order_id |
+----+
| shreya |
            1 |
avni |
           1 |
| riya |
           1 |
shriya |
            1 |
anjani |
            1 |
kajal |
           1 |
| krishna |
            1 |
| shreya |
            2 |
```

4 | shriya | 2020-12-23 |

```
avni
            2 |
            2 |
 riya
             2 |
| shriya |
             2 |
 anjani |
            2 |
 kajal |
 krishna |
             2 |
 shreya |
             3 |
            3 |
 avni |
 riya
            3 |
             3 |
 shriya |
 anjani |
             3 |
 kajal |
            3 |
             3 |
 krishna |
 shreya |
             4 |
            4 |
 avni
 riya
            4 |
 shriya |
             4 |
 anjani |
             4 |
 kajal |
            4 |
 krishna |
             4
 shreya |
             5 |
 avni
            5 |
 riya
            5|
 shriya |
             5|
 anjani |
             5|
 kajal |
            5 |
 krishna |
             5|
 shreya |
             6
 avni
            6 |
 riya |
            6 |
 shriya |
             6
 anjani |
             6|
 kajal |
            6 |
 krishna |
             6|
             7 |
 shreya |
 avni
            7 |
 riya
            7 |
 shriya |
             7 |
             7 |
 anjani |
            7 |
| kajal |
| krishna |
             7 |
+----+
49 rows in set (0.001 sec)
---->MariaDB [tempinterminal]> SELECT A.c_name AS c_name1, B.c_name AS c_name2,
A.c_city FROM customer A, customer B WHERE A.c_id = B.c_id ORDER BY A.c_city;
+----+
| c_name1 | c_name2 | c_city
+----+
| shreya | shreya | Ahmedabad |
| shriya | shriya | banglore |
| kajal | kajal | delhi
```

```
krishna | krishna | london |
avni avni mumbai
|riya |riya |pune
+----+
7 rows in set (0.002 sec)
---->MariaDB [tempinterminal]> SELECT c id from customer UNION
  -> SELECT c_id FROM order_detail ORDER BY c_id;
+----+
| c_id |
+----+
  1 |
  2 |
  3 |
  4
  5 |
  6
  7 |
7 rows in set (0.002 sec)
---->MariaDB [tempinterminal]> SELECT COUNT(c_id),c_city FROM customer GROUP BY
c_city ORDER BY COUNT(c_id) DESC;
+----+
| COUNT(c_id) | c_city |
+----+
     1 | banglore |
      1 | pune
      1 | mumbai |
      1 | Ahmedabad |
      1 | london |
      1 | delhi
      1 | jaipur |
    _____+
7 rows in set (0.002 sec)
---->MariaDB [tempinterminal]> SELECT COUNT(c id),c city FROM customer GROUP BY
c city HAVING COUNT(c_id) <2;
+----+
| COUNT(c_id) | c_city |
+----+
      1 | Ahmedabad |
     1 | banglore |
      1 | delhi
      1 | jaipur |
      1 | london |
      1 | mumbai |
     1 | pune |
+----+
7 rows in set (0.001 sec)
```

| anjani | anjani | jaipur |

```
---->MariaDB [tempinterminal]> SELECT c name FROM customer WHERE EXISTS (SELECT
o_date FROM order_detail WHERE order_detail.c_id = customer.c_id AND bill_amt < 10000);
+----+
c_name
+----+
| shreya |
avni |
| riya |
+----+
3 \text{ rows in set } (0.003 \text{ sec})
---->MariaDB [tempinterminal]> SELECT c_name FROM customer WHERE c_id = ANY
(SELECT c_id FROM order_detail WHERE bill_amt >12000);
+----+
c_name
+----+
| krishna |
+----+
1 row in set (0.002 sec)
---->MariaDB [tempinterminal]> SELECT c_name FROM customer WHERE c_id = ALL
(SELECT c_id FROM order_detail WHERE bill_amt >12000);
+----+
c_name
+----+
| shreya |
avni |
riya |
| shriya |
 anjani |
| kajal |
6 \text{ rows in set } (0.002 \text{ sec})
```