```
MariaDB [dbms_lab]> select * from Room;
+--------+---------+--------+--------+
| RoomNo | HotelNo | Type   | Price  |
+--------+---------+--------+--------+
|      1 |       1 | Suite  |   1646 |
|      2 |       2 | Suite  |   1264 |
|      3 |       1 | 2 Bed  |    773 |
|      4 |       4 | 2 Bed  |   1949 |
|      5 |       1 | 3 Bed  |   1959 |
|      6 |       3 | 3 Bed  |    674 |
|      7 |       1 | 1 Bed  |   1018 |
|      8 |       3 | 1 Bed  |   1314 |
|      9 |       1 | Suite  |   1308 |
|     10 |       9 | 3 Bed  |   1366 |
|     11 |      10 | 1 Bed  |    666 |
|     12 |       7 | 2 Bed  |   1498 |
|     13 |       7 | Suite  |    984 |
+--------+---------+--------+--------+
13 rows in set (0.001 sec)

MariaDB [dbms_lab]> select * from Hotel;
+---------+------------------+----------------------+
| HotelNo | Name             | City                 |
+---------+------------------+----------------------+
|       1 | Hotel love       | Guernsey             |
|       2 | Hotel imagine    | Jordan               |
|       3 | Hotel rice       | Equatorial Guinea    |
|       4 | Hotel perhaps    | Bolivia              |
|       5 | Hotel show       | Reunion              |
|       6 | Hotel native     | Brunei               |
|       7 | Hotel pool       | Panama               |
|       8 | Hotel spin       | Guyana               |
|       9 | Hotel toward     | St. Barthelemy       |
|      10 | Hotel expression | St. Pierre & Miquelon |
|      11 | Hotel cheese     | Guinea-Bissau        |
|      12 | Hotel motion     | Latvia               |
|      13 | Hotel lay        | Fiji                 |
|      14 | Hotel stiff      | Brazil               |
|      15 | Hotel suddenly   | Lithuania            |
|      16 | Hotel stretch    | Montenegro           |
|      17 | Hotel current    | Isle of Man          |
|      18 | Hotel forest     | Haiti                |
+---------+------------------+----------------------+
18 rows in set (0.001 sec)

MariaDB [dbms_lab]> select * from booking;
+---------+---------+------------+------------+--------+
| HotelNo | GuestNo | DateFrom   | DateTo     | RoomNo |
+---------+---------+------------+------------+--------+
|       7 |      10 | 2096-04-21 | 2099-12-21 |     10 |
|       8 |       5 | 2077-09-29 | 2109-09-10 |     11 |
|      11 |       4 | 2123-01-05 | 2063-08-30 |      2 |
|      10 |       5 | 2027-02-05 | 2119-12-21 |      7 |
|       9 |       5 | 2081-07-11 | 2031-06-20 |     13 |
|       5 |       5 | 2059-11-19 | 2113-05-22 |     11 |
+---------+---------+------------+------------+--------+
6 rows in set (0.000 sec)

MariaDB [dbms_lab]> select * from Guest;
+---------+----------------+----------------+
| GuestNo | GuestName      | GuessAddress   |
+---------+----------------+----------------+
|       2 | Patrick Taylor | Lebanon        |
|       4 | Mattie Vargas  | St. Barthelemy |
|       5 | Travis Frazier | Gambia         |
|      10 | Sarah Ramsey   | Jamaica        |
|      11 | Rachel Keller  | Kenya          |
|      15 | Nathan Higgins | Puerto Rico    |
|      16 | Maude Gonzales | St. Lucia      |
```

```
+----------+-----------------+-----------------+
7 rows in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 1. many hotels are there?
MariaDB [dbms_lab]> select count(*) from Hotel;
+----------+
| count(*) |
+----------+
|       18 |
+----------+
1 row in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 2. the price and type of all rooms at the Grosvenor Hotel.
MariaDB [dbms_lab]> select price, type, Name from Room, Hotel where Room.HotelNo =
    Hotel.HotelNo and Name = 'Hotel love';
+-------+-------+------------+
| price | type  | Name       |
+-------+-------+------------+
|  1646 | Suite | Hotel love |
|   773 | 2 Bed | Hotel love |
|  1959 | 3 Bed | Hotel love |
|  1018 | 1 Bed | Hotel love |
|  1308 | Suite | Hotel love |
+-------+-------+------------+
5 rows in set (0.001 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 3. the number of rooms in each hotel.
MariaDB [dbms_lab]> select Room.HotelNo, Hotel.NAME, count(*) from Room, Hotel
    where Room.HotelNo = Hotel.HotelNo group by HotelNo;
+---------+-----------------+----------+
| HotelNo | NAME            | count(*) |
+---------+-----------------+----------+
|       1 | Hotel love      |        5 |
|       2 | Hotel imagine   |        1 |
|       3 | Hotel rice      |        2 |
|       4 | Hotel perhaps   |        1 |
|       7 | Hotel pool      |        2 |
|       9 | Hotel toward    |        1 |
|      10 | Hotel expression|        1 |
+---------+-----------------+----------+
7 rows in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 4. Update the price of all rooms by 5%.
MariaDB [dbms_lab]> select r.Price, r.Price + r.Price * 0.05 as Updated_price from
    Room r;
+-------+---------------+
| Price | Updated_price |
+-------+---------------+
|  1646 |       1728.30 |
|  1264 |       1327.20 |
|   773 |        811.65 |
|  1949 |       2046.45 |
|  1959 |       2056.95 |
|   674 |        707.70 |
```

```
|    1018 |        1068.90 |
|    1314 |        1379.70 |
|    1308 |        1373.40 |
|    1366 |        1434.30 |
|     666 |         699.30 |
|    1498 |        1572.90 |
|     984 |        1033.20 |
+---------+----------------+
13 rows in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 5. full details of all hotels in London.
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> select * from Hotel where City = 'Jordan';
+---------+----------------+---------+
| HotelNo | Name           | City    |
+---------+----------------+---------+
|       2 | Hotel imagine  | Jordan  |
+---------+----------------+---------+
1 row in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 6. What is the average price of a room?
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> select avg(Price) from Room;
+------------+
| avg(Price) |
+------------+
|  1263.0000 |
+------------+
1 row in set (0.000 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 7. all guests currently staying at the Grosvenor Hotel.
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> select Guest.* from Guest, booking, Hotel where Guest.GuestNo
    = booking.GuestNo and booking.HotelNo = Hotel.HotelNo and Hotel.Name = 'Hotel
    pool';
+---------+--------------+--------------+
| GuestNo | GuestName    | GuessAddress |
+---------+--------------+--------------+
|      10 | Sarah Ramsey | Jamaica      |
+---------+--------------+--------------+
1 row in set (0.001 sec)

MariaDB [dbms_lab]>
MariaDB [dbms_lab]> -- 8. the number of rooms in each hotel in London.
MariaDB [dbms_lab]>
MariaDB [dbms_lab]> select count(*) from Room, Hotel where Room.HotelNo = Hotel.
    HotelNo and Hotel.City = 'Jordan';
+----------+
| count(*) |
+----------+
|        1 |
+----------+
1 row in set (0.000 sec)

MariaDB [dbms_lab]>
```

```
MariaDB [dbms_lab]> CREATE TABLE zipcode (
    ->    zip VARCHAR(10) PRIMARY KEY,
    ->    city VARCHAR(50) NOT NULL
    -> );
Query OK, 0 rows affected (0.50 sec)

MariaDB [dbms_lab]> CREATE TABLE customers (
    ->    cno INT PRIMARY KEY,
    ->    cname VARCHAR(50) NOT NULL,
    ->    street VARCHAR(50),
    ->    zip VARCHAR(10),
    ->    phone VARCHAR(20),
    ->    CONSTRAINT zip_fk FOREIGN KEY (zip) REFERENCES zipcode (zip)
    -> );
Query OK, 0 rows affected (0.39 sec)


MariaDB [dbms_lab]> CREATE TABLE emp (
    ->    eno INT PRIMARY KEY,
    ->    ename VARCHAR(50) NOT NULL,
    ->    zip VARCHAR(10),
    ->    hdate DATE,
    ->    FOREIGN KEY (zip) REFERENCES zipcode (zip)
    -> );
Query OK, 0 rows affected (0.44 sec)

MariaDB [dbms_lab]> CREATE TABLE parts (
    ->    pno INT PRIMARY KEY,
    ->    pname VARCHAR(50) NOT NULL,
    ->    qty_on_hand INT CHECK (qty_on_hand >= 0),
    ->    price DECIMAL(10, 2) CHECK (price >= 0)
    -> );
Query OK, 0 rows affected (0.40 sec)

MariaDB [dbms_lab]> ^C
MariaDB [dbms_lab]> CREATE TABLE orders (
    ->    ono INT PRIMARY KEY,
    ->    cno INT,
    ->    receivedate DATE,
    ->    shippeddate DATE,
    ->    CONSTRAINT cno_fk FOREIGN KEY (cno) REFERENCES customers (cno)
    -> );
Query OK, 0 rows affected (0.22 sec)

MariaDB [dbms_lab]> CREATE TABLE odetails (
    ->    ono INT,
    ->    pno INT,
    ->    qty INT CHECK (qty >= 0),
    ->    PRIMARY KEY (ono, pno),
    ->    CONSTRAINT ono_fk FOREIGN KEY (ono) REFERENCES orders (ono),
    ->    CONSTRAINT pno_fk FOREIGN KEY (pno) REFERENCES parts (pno)
    -> );
Query OK, 0 rows affected (0.24 sec)

MariaDB [dbms_lab]> INSERT INTO zipcode (zip, city) VALUES
    ->    ('10001', 'New York'),
    ->    ('10002', 'Los Angeles'),
```

```
MariaDB [dbms_lab]> SELECT orders.ono, customers.cname
    -> FROM orders
    -> JOIN customers ON orders.cno = customers.cno
    -> WHERE orders.shippeddate IS NULL;
+-----+--------------+
| ono | cname        |
+-----+--------------+
|   2 | Globex Corp. |
+-----+--------------+
1 row in set (0.00 sec)

MariaDB [dbms_lab]> -- q4
MariaDB [dbms_lab]> SELECT DISTINCT zipcode.city
    -> FROM emp
    -> JOIN zipcode ON emp.zip = zipcode.zip
    -> UNION
    -> SELECT DISTINCT zipcode.city
    -> FROM customers
    -> JOIN zipcode ON customers.zip = zipcode.zip;

+-------------+
| city        |
+-------------+
| New York    |
| Los Angeles |
| Chicago     |
+-------------+

MariaDB [dbms_lab]> -- q5
MariaDB [dbms_lab]> SELECT SUM(qty)
    -> FROM odetails
    -> WHERE pno = '1060';
+----------+
| SUM(qty) |
+----------+
|     NULL |
+----------+
1 row in set (0.00 sec)

MariaDB [dbms_lab]> -- q6
MariaDB [dbms_lab]> SELECT COUNT(*) as total_customers
    -> FROM customers;
+-----------------+
| total_customers |
+-----------------+
|               3 |
+-----------------+
1 row in set (0.37 sec)

MariaDB [dbms_lab]> -- q7
MariaDB [dbms_lab]> CREATE VIEW customer_orders AS
    -> SELECT orders.ono, orders.receivedate, orders.shippeddate, customers.cname
    -> FROM orders
    -> JOIN customers ON orders.cno = customers.cno;
Query OK, 0 rows affected (0.44 sec)


MariaDB [dbms_lab]> select * from customer_orders;
+-----+--------------+-------------+--------------+

| ono | receivedate  | shippeddate | cname        |
+-----+--------------+-------------+--------------+
|   1 | 2022-01-01   | 2022-01-02  | Acme Inc.    |
|   2 | 2022-02-01   | NULL        | Globex Corp. |
|   3 | 2022-03-01   | 2022-03-02  | Initech Ltd. |
+-----+--------------+-------------+--------------+
3 rows in set (0.35 sec)
```