SQL Assignment 5

Creating database:

```
mysql> create database Ticket_booking_system;
Query OK, 1 row affected (0.01 sec)

mysql> use Ticket_booking_system
Database changed
```

Creating tables:

```
mysql> CREATE TABLE Venu (
    ->     venue_id INT PRIMARY KEY,
    ->     venue_name VARCHAR(255),
    ->     address VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> CREATE TABLE Event (
    ->     event_id INT PRIMARY KEY,
    ->     event_name VARCHAR(255),
    ->     event_date DATE,
    ->     event_time TIME,
    ->     venue_id INT,
    ->     total_seats INT,
    ->     available_seats INT,
    ->     ticket_price DECIMAL,
    ->     event_type VARCHAR(50),
    ->     booking_id INT,
    ->     FOREIGN KEY (venue_id) REFERENCES Venu(venue_id)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> CREATE TABLE Customer (
    ->     customer_id INT PRIMARY KEY,
    ->     customer_name VARCHAR(255),
    ->     email VARCHAR(255),
    ->     phone_number VARCHAR(15),
    ->     booking_id INT
    -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> CREATE TABLE Booking (
    ->     booking_id INT PRIMARY KEY,
    ->     customer_id INT,
    ->     event_id INT,
    ->     num_tickets INT,
    ->     total_cost DECIMAL,
    ->     booking_date DATE,
    ->     FOREIGN KEY (customer_id) REFERENCES Customer(customer_id),
    ->     FOREIGN KEY (event_id) REFERENCES Event(event_id)
    -> );
Query OK, 0 rows affected (0.06 sec)
```

Inserting values:

```
mysql> INSERT INTO Venu (venue_id, venue_name, address)
    -> VALUES
    ->   (1, 'Chennai Kalyana Mandapam', 'Anna Nagar, Chennai'),
    ->   (2, 'Trivandrum Convention Center', 'MG Road, Trivandrum'),
    ->   (3, 'Mysuru Palace Banquet Hall', 'Palace Road, Mysuru'),
    ->   (4, 'Coimbatore Community Hall', 'Gandhipuram, Coimbatore'),
    ->   (5, 'Kochi Auditorium', 'Marine Drive, Kochi'),
    ->   (6, 'Madurai Convention Hall', 'Race Course Road, Madurai'),
    ->   (7, 'Bangalore Tech Park Auditorium', 'Whitefield, Bangalore'),
    ->   (8, 'Hyderabad Banjara Hills Banquet', 'Banjara Hills, Hyderabad'),
    ->   (9, 'Trichy Grand Plaza', 'Cantonment, Trichy'),
    ->   (10, 'Vizag Beach Resort', 'Beach Road, Vizag');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Event (event_id, event_name, event_date, event_time, venue_id, total
_seats, available_seats, ticket_price, event_type, booking_id)
    -> VALUES
    ->   (1, 'Kollywood Night', '2023-01-15', '19:30:00', 1, 100, 50, 25.00, 'Concert',
 1),
    ->   (2, 'Onam Celebration', '2023-09-05', '13:00:00', 3, 200, 150, 30.00, 'Movie',
 2),
    ->   (3, 'Mysuru Dasara Dance Festival', '2023-10-12', '18:00:00', 4, 150, 120, 22.
50, 'Concert', 3),
    ->   (4, 'Coimbatore Film Festival', '2023-05-20', '17:30:00', 5, 180, 100, 18.00,
'Movie', 4),
    ->   (5, 'Kochi Music Awards', '2023-07-28', '20:00:00', 2, 120, 80, 20.00, 'Concer
t', 5),
    ->   (6, 'Madurai Classical Dance Recital', '2023-04-08', '15:45:00', 6, 80, 60, 15
.00, 'Concert', 6),
    ->   (7, 'Bangalore Tech Conference', '2023-03-10', '10:30:00', 7, 300, 250, 35.00,
 'Conference', 7),
    ->   (8, 'Hyderabad Cricket Tournament', '2023-06-18', '14:15:00', 8, 200, 180, 25.
00, 'Sports', 8),
    ->   (9, 'Trichy Science Exhibition', '2023-11-02', '11:00:00', 9, 120, 100, 12.00,
 'Exhibition', 9),
    ->   (10, 'Vizag Beach Party', '2023-08-15', '21:30:00', 10, 150, 120, 30.00, 'Part
y', 10);
Query OK, 10 rows affected, 1 warning (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 1
```

```
mysql> INSERT INTO Customer (customer_id, customer_name, email, phone_number, booking_i
d)
    -> VALUES
    ->   (1, 'Rajesh Kumar', 'rajesh.kumar@gmail.com', '9876543210', 1),
    ->   (2, 'Priya Suresh', 'priya.suresh@yahoo.com', '8765432109', 2),
    ->   (3, 'Ananya Menon', 'ananya.menon@hotmail.com', '7654321098', 3),
    ->   (4, 'Arjun Nair', 'arjun.nair@gmail.com', '6543210987', 4),
    ->   (5, 'Kavya Pillai', 'kavya.pillai@yahoo.com', '5432109876', 5),
    ->   (6, 'Manoj Sundaram', 'manoj.sundaram@gmail.com', '4321098765', 6),
    ->   (7, 'Neha Reddy', 'neha.reddy@yahoo.com', '3210987654', 7),
    ->   (8, 'Suresh Babu', 'suresh.babu@hotmail.com', '2109876543', 8),
    ->   (9, 'Vidya Shankar', 'vidya.shankar@gmail.com', '1098765432', 9),
    ->   (10, 'Aruna Kumar', 'aruna.kumar@yahoo.com', '9876543210', 10);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Booking (booking_id, customer_id, event_id, num_tickets, total_cost,
 booking_date)
    -> VALUES
    ->   (1, 1, 1, 2, 50.00, '2023-01-10'),
    ->   (2, 2, 2, 4, 120.00, '2023-08-02'),
    ->   (3, 3, 3, 3, 67.50, '2023-09-25'),
    ->   (4, 4, 4, 5, 90.00, '2023-04-15'),
    ->   (5, 5, 5, 2, 40.00, '2023-07-20'),
    ->   (6, 6, 6, 1, 15.00, '2023-03-28'),
    ->   (7, 7, 7, 3, 105.00, '2023-02-12'),
    ->   (8, 8, 8, 4, 100.00, '2023-05-28'),
    ->   (9, 9, 9, 2, 24.00, '2023-11-05'),
    ->   (10, 10, 10, 3, 90.00, '2023-08-20');
Query OK, 10 rows affected, 1 warning (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 1
```

Task 2:

1. Write a SQL query to list all Events.

```
mysql> SELECT * FROM Event;
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+--------------+------------+------------+
| event_id | event_name                       | event_date | event_time | venue_id | tot
al_seats | available_seats | ticket_price | event_type | booking_id |
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+--------------+------------+------------+
|        1 | Kollywood Night                  | 2023-01-15 | 19:30:00   |        1 |
     100 |              50 |           25 | Concert    |          1 |
|        2 | Onam Celebration                 | 2023-09-05 | 13:00:00   |        3 |
     200 |             150 |           30 | Movie      |          2 |
|        3 | Mysuru Dasara Dance Festival     | 2023-10-12 | 18:00:00   |        4 |
     150 |             120 |           23 | Concert    |          3 |
|        4 | Coimbatore Film Festival         | 2023-05-20 | 17:30:00   |        5 |
     180 |             100 |           18 | Movie      |          4 |
|        5 | Kochi Music Awards               | 2023-07-28 | 20:00:00   |        2 |
     120 |              80 |           20 | Concert    |          5 |
|        6 | Madurai Classical Dance Recital | 2023-04-08 | 15:45:00   |        6 |
      80 |              60 |           15 | Concert    |          6 |
|        7 | Bangalore Tech Conference        | 2023-03-10 | 10:30:00   |        7 |
     300 |             250 |           35 | Conference |          7 |
|        8 | Hyderabad Cricket Tournament     | 2023-06-18 | 14:15:00   |        8 |
     200 |             180 |           25 | Sports     |          8 |
|        9 | Trichy Science Exhibition        | 2023-11-02 | 11:00:00   |        9 |
     120 |             100 |           12 | Exhibition |          9 |
|       10 | Vizag Beach Party                | 2023-08-15 | 21:30:00   |       10 |
     150 |             120 |           30 | Party      |         10 |
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+--------------+------------+------------+
10 rows in set (0.00 sec)
```

2. Write a SQL query to select events with available tickets

```
mysql> SELECT * FROM Event WHERE available_seats > 0;
+----------+---------------------------------+------------+------------+----------+----
---------+----------------+-------------+-----------+------------+
| event_id | event_name                      | event_date | event_time | venue_id | tot
al_seats | available_seats | ticket_price | event_type | booking_id |
+----------+---------------------------------+------------+------------+----------+----
---------+----------------+-------------+-----------+------------+
|        1 | Kollywood Night                 | 2023-01-15 | 19:30:00   |        1 |
     100 |              50 |          25 | Concert    |          1 |
|        2 | Onam Celebration                | 2023-09-05 | 13:00:00   |        3 |
     200 |             150 |          30 | Movie      |          2 |
|        3 | Mysuru Dasara Dance Festival    | 2023-10-12 | 18:00:00   |        4 |
     150 |             120 |          23 | Concert    |          3 |
|        4 | Coimbatore Film Festival        | 2023-05-20 | 17:30:00   |        5 |
     180 |             100 |          18 | Movie      |          4 |
|        5 | Kochi Music Awards              | 2023-07-28 | 20:00:00   |        2 |
     120 |              80 |          20 | Concert    |          5 |
|        6 | Madurai Classical Dance Recital | 2023-04-08 | 15:45:00   |        6 |
      80 |              60 |          15 | Concert    |          6 |
|        7 | Bangalore Tech Conference       | 2023-03-10 | 10:30:00   |        7 |
     300 |             250 |          35 | Conference |          7 |
|        8 | Hyderabad Cricket Tournament    | 2023-06-18 | 14:15:00   |        8 |
     200 |             180 |          25 | Sports     |          8 |
|        9 | Trichy Science Exhibition       | 2023-11-02 | 11:00:00   |        9 |
     120 |             100 |          12 | Exhibition |          9 |
|       10 | Vizag Beach Party               | 2023-08-15 | 21:30:00   |       10 |
     150 |             120 |          30 | Party      |         10 |
+----------+---------------------------------+------------+------------+----------+----
---------+----------------+-------------+-----------+------------+
10 rows in set (0.00 sec)
```

3. Write a SQL query to select events name partial match with 'cup'.

```
mysql> SELECT * FROM Event WHERE event_name LIKE '%cup%';
Empty set (0.00 sec)
```

4. Write a SQL query to select events with ticket price range is between 1000 to 2500.

```
mysql> SELECT * FROM Event WHERE ticket_price BETWEEN 1000 AND 2500;
Empty set (0.00 sec)
```

5. Write a SQL query to retrieve events with dates falling within a specific range.

```
mysql> SELECT * FROM Event WHERE event_date BETWEEN '2023-05-01' AND '2023-08-31';
+----------+---------------------------------+------------+------------+----------+-------
------+----------------+-------------+-----------+------------+
| event_id | event_name                      | event_date | event_time | venue_id | total_
seats | available_seats | ticket_price | event_type | booking_id |
+----------+---------------------------------+------------+------------+----------+-------
------+----------------+-------------+-----------+------------+
|        4 | Coimbatore Film Festival        | 2023-05-20 | 17:30:00   |        5 |
  180 |             100 |          18 | Movie      |          4 |
|        5 | Kochi Music Awards              | 2023-07-28 | 20:00:00   |        2 |
  120 |              80 |          20 | Concert    |          5 |
|        8 | Hyderabad Cricket Tournament | 2023-06-18 | 14:15:00   |        8 |
  200 |             180 |          25 | Sports     |          8 |
|       10 | Vizag Beach Party               | 2023-08-15 | 21:30:00   |       10 |
  150 |             120 |          30 | Party      |         10 |
+----------+---------------------------------+------------+------------+----------+-------
------+----------------+-------------+-----------+------------+
4 rows in set (0.00 sec)
```

6. Write a SQL query to retrieve events with available tickets that also have "Concert" in their name.

```
mysql> SELECT * FROM Event WHERE available_seats > 0 AND event_type = 'Concert';
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+-------------+------------+------------+
| event_id | event_name                       | event_date | event_time | venue_id | tot
al_seats | available_seats | ticket_price | event_type | booking_id |
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+-------------+------------+------------+
|        1 | Kollywood Night                  | 2023-01-15 | 19:30:00   |        1 |
     100 |              50 |          25 | Concert    |          1 |
|        3 | Mysuru Dasara Dance Festival     | 2023-10-12 | 18:00:00   |        4 |
     150 |             120 |          23 | Concert    |          3 |
|        5 | Kochi Music Awards               | 2023-07-28 | 20:00:00   |        2 |
     120 |              80 |          20 | Concert    |          5 |
|        6 | Madurai Classical Dance Recital | 2023-04-08 | 15:45:00   |        6 |
      80 |              60 |          15 | Concert    |          6 |
+----------+----------------------------------+------------+------------+----------+----
---------+-----------------+-------------+------------+------------+
4 rows in set (0.00 sec)
```

7. Write a SQL query to retrieve users in batches of 5, starting from the 6th user.

```
mysql> SELECT * FROM Customer ORDER BY customer_id;
+-------------+---------------+-------------------------+--------------+------------+
| customer_id | customer_name | email                   | phone_number | booking_id |
+-------------+---------------+-------------------------+--------------+------------+
|           1 | Rajesh Kumar  | rajesh.kumar@gmail.com  | 9876543210   |          1 |
|           2 | Priya Suresh  | priya.suresh@yahoo.com  | 8765432109   |          2 |
|           3 | Ananya Menon  | ananya.menon@hotmail.com | 7654321098   |          3 |
|           4 | Arjun Nair    | arjun.nair@gmail.com    | 6543210987   |          4 |
|           5 | Kavya Pillai  | kavya.pillai@yahoo.com  | 5432109876   |          5 |
|           6 | Manoj Sundaram | manoj.sundaram@gmail.com | 4321098765   |          6 |
|           7 | Neha Reddy    | neha.reddy@yahoo.com    | 3210987654   |          7 |
|           8 | Suresh Babu   | suresh.babu@hotmail.com | 2109876543   |          8 |
|           9 | Vidya Shankar | vidya.shankar@gmail.com | 1098765432   |          9 |
|          10 | Aruna Kumar   | aruna.kumar@yahoo.com   | 9876543210   |         10 |
+-------------+---------------+-------------------------+--------------+------------+
10 rows in set (0.00 sec)
```

8. Write a SQL query to retrieve bookings details contains booked no of ticket more than 4.

```
mysql> SELECT * FROM Booking WHERE num_tickets > 4;
+------------+-------------+----------+-------------+------------+--------------+
| booking_id | customer_id | event_id | num_tickets | total_cost | booking_date |
+------------+-------------+----------+-------------+------------+--------------+
|          4 |           4 |        4 |           5 |         90 | 2023-04-15   |
+------------+-------------+----------+-------------+------------+--------------+
1 row in set (0.00 sec)
```

9. Write a SQL query to retrieve customer information whose phone number end with '0'

```
mysql> SELECT * FROM Customer WHERE phone_number LIKE '%0';
+-------------+---------------+-----------------------+--------------+------------+
| customer_id | customer_name | email                 | phone_number | booking_id |
+-------------+---------------+-----------------------+--------------+------------+
|           1 | Rajesh Kumar  | rajesh.kumar@gmail.com | 9876543210   |          1 |
|          10 | Aruna Kumar   | aruna.kumar@yahoo.com  | 9876543210   |         10 |
+-------------+---------------+-----------------------+--------------+------------+
2 rows in set (0.00 sec)
```

10. Write a SQL query to retrieve the events in order whose seat capacity more than 150.

```
mysql> SELECT * FROM Event WHERE total_seats > 150 ORDER BY total_seats;
+----------+------------------------------+------------+------------+----------+-------
------+----------------+--------------+------------+------------+
| event_id | event_name                   | event_date | event_time | venue_id | total_
seats | available_seats | ticket_price | event_type | booking_id |
+----------+------------------------------+------------+------------+----------+-------
------+----------------+--------------+------------+------------+
|        4 | Coimbatore Film Festival     | 2023-05-20 | 17:30:00   |        5 |
  180 |              100 |           18 | Movie      |          4 |
|        2 | Onam Celebration             | 2023-09-05 | 13:00:00   |        3 |
  200 |              150 |           30 | Movie      |          2 |
|        8 | Hyderabad Cricket Tournament | 2023-06-18 | 14:15:00   |        8 |
  200 |              180 |           25 | Sports     |          8 |
|        7 | Bangalore Tech Conference    | 2023-03-10 | 10:30:00   |        7 |
  300 |              250 |           35 | Conference |          7 |
+----------+------------------------------+------------+------------+----------+-------
------+----------------+--------------+------------+------------+
4 rows in set (0.00 sec)
```

11. Write a SQL query to select events name not start with 'x', 'y', 'z'

```
mysql> SELECT * FROM Event WHERE NOT (event_name LIKE 'x%' OR event_name LIKE 'y%' OR e
vent_name LIKE 'z%');
+----------+------------------------------+------------+------------+----------+----
---------+----------------+--------------+------------+------------+
| event_id | event_name                   | event_date | event_time | venue_id | tot
al_seats | available_seats | ticket_price | event_type | booking_id |
+----------+------------------------------+------------+------------+----------+----
---------+----------------+--------------+------------+------------+
|        1 | Kollywood Night              | 2023-01-15 | 19:30:00   |        1 |
     100 |               50 |           25 | Concert    |          1 |
|        2 | Onam Celebration             | 2023-09-05 | 13:00:00   |        3 |
     200 |              150 |           30 | Movie      |          2 |
|        3 | Mysuru Dasara Dance Festival | 2023-10-12 | 18:00:00   |        4 |
     150 |              120 |           23 | Concert    |          3 |
|        4 | Coimbatore Film Festival     | 2023-05-20 | 17:30:00   |        5 |
     180 |              100 |           18 | Movie      |          4 |
|        5 | Kochi Music Awards           | 2023-07-28 | 20:00:00   |        2 |
     120 |               80 |           20 | Concert    |          5 |
|        6 | Madurai Classical Dance Recital | 2023-04-08 | 15:45:00   |        6 |
      80 |               60 |           15 | Concert    |          6 |
|        7 | Bangalore Tech Conference    | 2023-03-10 | 10:30:00   |        7 |
     300 |              250 |           35 | Conference |          7 |
|        8 | Hyderabad Cricket Tournament | 2023-06-18 | 14:15:00   |        8 |
     200 |              180 |           25 | Sports     |          8 |
|        9 | Trichy Science Exhibition    | 2023-11-02 | 11:00:00   |        9 |
     120 |              100 |           12 | Exhibition |          9 |
|       10 | Vizag Beach Party            | 2023-08-15 | 21:30:00   |       10 |
     150 |              120 |           30 | Party      |         10 |
+----------+------------------------------+------------+------------+----------+----
---------+----------------+--------------+------------+------------+
10 rows in set (0.00 sec)
```

12. Write a SQL query to List Events and Their Average Ticket Prices.

```
mysql> SELECT event_id, event_name, AVG(ticket_price) AS average_ticket_price
    -> FROM Event
    -> GROUP BY event_id, event_name;
+----------+--------------------------------+----------------------+
| event_id | event_name                     | average_ticket_price |
+----------+--------------------------------+----------------------+
|        1 | Kollywood Night                |              25.0000 |
|        2 | Onam Celebration               |              30.0000 |
|        3 | Mysuru Dasara Dance Festival   |              23.0000 |
|        4 | Coimbatore Film Festival       |              18.0000 |
|        5 | Kochi Music Awards             |              20.0000 |
|        6 | Madurai Classical Dance Recital |              15.0000 |
|        7 | Bangalore Tech Conference      |              35.0000 |
|        8 | Hyderabad Cricket Tournament   |              25.0000 |
|        9 | Trichy Science Exhibition      |              12.0000 |
|       10 | Vizag Beach Party              |              30.0000 |
+----------+--------------------------------+----------------------+
10 rows in set (0.00 sec)
```

13. Write a SQL query to Calculate the Total Revenue Generated by Events.

```
mysql> SELECT SUM(total_cost) AS total_revenue
    -> FROM Booking;
+---------------+
| total_revenue |
+---------------+
|           702 |
+---------------+
1 row in set (0.00 sec)
```

Task 3:

1. Write a SQL query to List Events and Their Average Ticket Prices.

```
mysql> SELECT event_id, event_name, SUM(num_tickets) AS total_tickets_sold
    -> FROM Booking
    -> GROUP BY event_id, event_name
    -> ORDER BY total_tickets_sold DESC
    -> LIMIT 1;
```

2. Write a SQL query to Calculate the Total Revenue Generated by Events.

```
mysql> SELECT event_id, event_name, SUM(num_tickets) AS total_tickets_sold
    -> FROM Booking
    -> GROUP BY event_id, event_name;
```

3. Write a SQL query to find the event with the highest ticket sales.

```
mysql> SELECT event_id, event_name
    -> FROM Event
    -> WHERE event_id NOT IN (SELECT DISTINCT event_id FROM Booking);
Empty set (0.00 sec)
```

4. Write a SQL query to Calculate the Total Number of Tickets Sold for Each Event.

```
mysql> SELECT customer_id, customer_name, SUM(num_tickets) AS total_tickets_booked
    -> FROM Booking
    -> GROUP BY customer_id, customer_name
    -> ORDER BY total_tickets_booked DESC
    -> LIMIT 1;
```

5. Write a SQL query to Find Events with No Ticket Sales.

```
mysql> SELECT MONTH(booking_date) AS month, event_id, event_name, SUM(num_tickets) AS t
otal_tickets_sold
    -> FROM Booking
    -> GROUP BY month, event_id, event_name
    -> ORDER BY month, event_id;
```

6. Write a SQL query to Find the User Who Has Booked the Most Tickets.

```
mysql> SELECT venue_id, venue_name, AVG(ticket_price) AS average_ticket_price
    -> FROM Event
    -> GROUP BY venue_id, venue_name;
```

7. Write a SQL query to List Events and the total number of tickets sold for each month.

```
mysql> SELECT event_type, SUM(num_tickets) AS total_tickets_sold
    -> FROM Event
    -> JOIN Booking ON Event.event_id = Booking.event_id
    -> GROUP BY event_type;
+------------+--------------------+
| event_type | total_tickets_sold |
+------------+--------------------+
| Concert    |                  8 |
| Movie      |                  9 |
| Conference |                  3 |
| Sports     |                  4 |
| Exhibition |                  2 |
| Party      |                  3 |
+------------+--------------------+
6 rows in set (0.00 sec)
```

8. Write a SQL query to calculate the average Ticket Price for Events in Each Venue.

```
mysql> SELECT YEAR(booking_date) AS year, SUM(total_cost) AS total_revenue
    -> FROM Booking
    -> GROUP BY year;
+------+---------------+
| year | total_revenue |
+------+---------------+
| 2023 |           702 |
+------+---------------+
1 row in set (0.00 sec)
```

9. Write a SQL query to calculate the total Number of Tickets Sold for Each Event Type.

```
mysql> SELECT customer_id, customer_name, COUNT(DISTINCT event_id) AS events_booked
    -> FROM Booking
    -> GROUP BY customer_id, customer_name
    -> HAVING events_booked > 1;
```

10. Write a SQL query to calculate the total Revenue Generated by Events in Each Year.

```
mysql> SELECT customer_id, customer_name, SUM(total_cost) AS total_revenue
    -> FROM Booking
    -> GROUP BY customer_id, customer_name;
```

11. Write a SQL query to calculate the Average Ticket Price for Events in Each Category and Venue.

```
mysql> SELECT venue_id, venue_name, event_type, AVG(ticket_price) AS average_ticket_pri
ce
    -> FROM Event
    -> GROUP BY venue_id, venue_name, event_type;
```

12. Write a SQL query to list Users and the Total Number of Tickets They've Purchased in the Last 30 Days.

```
mysql> SELECT customer_id, customer_name, SUM(num_tickets) AS total_tickets_purchased
    -> FROM Booking
    -> WHERE booking_date >= CURDATE() - INTERVAL 30 DAY
    -> GROUP BY customer_id, customer_name;
```

Task 4:

1. Calculate the Average Ticket Price for Events in Each Venue Using a Subquery.

```
mysql> SELECT venue_id, venue_name,
    ->        (SELECT AVG(ticket_price) FROM Event WHERE Event.venue_id = Venu.venue_id
) AS average_ticket_price
    -> FROM Venu;
+----------+---------------------------------+----------------------+
| venue_id | venue_name                      | average_ticket_price |
+----------+---------------------------------+----------------------+
|        1 | Chennai Kalyana Mandapam        |              25.0000 |
|        2 | Trivandrum Convention Center    |              20.0000 |
|        3 | Mysuru Palace Banquet Hall      |              30.0000 |
|        4 | Coimbatore Community Hall       |              23.0000 |
|        5 | Kochi Auditorium                |              18.0000 |
|        6 | Madurai Convention Hall         |              15.0000 |
|        7 | Bangalore Tech Park Auditorium  |              35.0000 |
|        8 | Hyderabad Banjara Hills Banquet |              25.0000 |
|        9 | Trichy Grand Plaza              |              12.0000 |
|       10 | Vizag Beach Resort              |              30.0000 |
+----------+---------------------------------+----------------------+
10 rows in set (0.00 sec)
```

2. Find Events with More Than 50% of Tickets Sold using subquery.

```
mysql> SELECT event_id, event_name
    -> FROM Event
    -> WHERE (SELECT SUM(num_tickets) FROM Booking WHERE Booking.event_id = Event.event
_id) > 0.5 * total_seats;
Empty set (0.00 sec)
```

3. Calculate the Total Number of Tickets Sold for Each Event.

```
mysql> SELECT event_id, event_name,
    ->        (SELECT SUM(num_tickets) FROM Booking WHERE Booking.event_id = Event.even
t_id) AS total_tickets_sold
    -> FROM Event;
+----------+---------------------------------+--------------------+
| event_id | event_name                      | total_tickets_sold |
+----------+---------------------------------+--------------------+
|        1 | Kollywood Night                 |                  2 |
|        2 | Onam Celebration                |                  4 |
|        3 | Mysuru Dasara Dance Festival    |                  3 |
|        4 | Coimbatore Film Festival        |                  5 |
|        5 | Kochi Music Awards              |                  2 |
|        6 | Madurai Classical Dance Recital |                  1 |
|        7 | Bangalore Tech Conference       |                  3 |
|        8 | Hyderabad Cricket Tournament    |                  4 |
|        9 | Trichy Science Exhibition       |                  2 |
|       10 | Vizag Beach Party               |                  3 |
+----------+---------------------------------+--------------------+
10 rows in set (0.00 sec)
```

4. Find Users Who Have Not Booked Any Tickets Using a NOT EXISTS Subquery.

```
mysql> SELECT customer_id, customer_name
    -> FROM Customer
    -> WHERE NOT EXISTS (SELECT 1 FROM Booking WHERE Booking.customer_id = Customer.cus
tomer_id);
```

5. List Events with No Ticket Sales Using a NOT IN Subquery.

```
mysql> SELECT event_id, event_name
    -> FROM Event
    -> WHERE event_id NOT IN (SELECT DISTINCT event_id FROM Booking);
Empty set (0.00 sec)
```

6. Calculate the Total Number of Tickets Sold for Each Event Type sing a Subquery in the FROM Clause.

```
mysql> SELECT event_type, SUM(total_tickets_sold) AS total_tickets_sold
    -> FROM (SELECT event_type, event_id,
    ->              (SELECT SUM(num_tickets) FROM Booking WHERE Booking.event_id = Even
t.event_id) AS total_tickets_sold
    ->       FROM Event) AS Subquery
    -> GROUP BY event_type;
+------------+--------------------+
| event_type | total_tickets_sold |
+------------+--------------------+
| Concert    |                  8 |
| Movie      |                  9 |
| Conference |                  3 |
| Sports     |                  4 |
| Exhibition |                  2 |
| Party      |                  3 |
+------------+--------------------+
6 rows in set (0.00 sec)
```

7. Find Events with Ticket Prices Higher Than the Average Ticket Price Using a Subquery in the WHERE Clause.

```
mysql> SELECT event_id, event_name, ticket_price
    -> FROM Event
    -> WHERE ticket_price > (SELECT AVG(ticket_price) FROM Event);
+----------+------------------------------+--------------+
| event_id | event_name                   | ticket_price |
+----------+------------------------------+--------------+
|        1 | Kollywood Night              |           25 |
|        2 | Onam Celebration             |           30 |
|        7 | Bangalore Tech Conference    |           35 |
|        8 | Hyderabad Cricket Tournament |           25 |
|       10 | Vizag Beach Party            |           30 |
+----------+------------------------------+--------------+
5 rows in set (0.00 sec)
```

8. Calculate the Total Revenue Generated by Events for Each User Using a Correlated Subquery.

```
mysql> SELECT customer_id, customer_name,
    ->        (SELECT SUM(total_cost) FROM Booking WHERE Booking.customer_id = Customer
.customer_id) AS total_revenue
    -> FROM Customer;
+-------------+---------------+---------------+
| customer_id | customer_name  | total_revenue |
+-------------+---------------+---------------+
|           1 | Rajesh Kumar   |            50 |
|           2 | Priya Suresh   |           120 |
|           3 | Ananya Menon   |            68 |
|           4 | Arjun Nair     |            90 |
|           5 | Kavya Pillai   |            40 |
|           6 | Manoj Sundaram |            15 |
|           7 | Neha Reddy     |           105 |
|           8 | Suresh Babu    |           100 |
|           9 | Vidya Shankar  |            24 |
|          10 | Aruna Kumar    |            90 |
+-------------+---------------+---------------+
10 rows in set (0.00 sec)
```

9. List Users Who Have Booked Tickets for Events in a Given Venue Using a Subquery in the WHERE Clause.

```
mysql> SELECT customer_id, customer_name
    -> FROM Customer
    -> WHERE EXISTS (SELECT 1 FROM Booking
    ->               JOIN Event ON Booking.event_id = Event.event_id
    ->               WHERE Event.venue_id = 1 AND Booking.customer_id = Customer.custom
er_id);
+-------------+---------------+
| customer_id | customer_name |
+-------------+---------------+
|           1 | Rajesh Kumar  |
+-------------+---------------+
1 row in set (0.00 sec)
```

10. Calculate the Total Number of Tickets Sold for Each Event Category Using a Subquery with GROUP BY

```
mysql> SELECT event_type, SUM(total_tickets_sold) AS total_tickets_sold
    -> FROM (SELECT event_type,
    ->              (SELECT SUM(num_tickets) FROM Booking WHERE Booking.event_id = Even
t.event_id) AS total_tickets_sold
    ->       FROM Event) AS Subquery
    -> GROUP BY event_type;
+------------+--------------------+
| event_type | total_tickets_sold |
+------------+--------------------+
| Concert    |                  8 |
| Movie      |                  9 |
| Conference |                  3 |
| Sports     |                  4 |
| Exhibition |                  2 |
| Party      |                  3 |
+------------+--------------------+
6 rows in set (0.00 sec)
```

11. Find Users Who Have Booked Tickets for Events in each Month Using a Subquery with DATE FORMAT.

```
mysql> SELECT customer_id, customer_name, DATE_FORMAT(booking_date, '%Y-%m') AS booking
_month
    -> FROM Booking
    -> JOIN Customer ON Booking.customer_id = Customer.customer_id;
```

12. Calculate the Average Ticket Price for Events in Each Venue Using a Subquery

```
mysql> SELECT venue_id, venue_name,
    ->        (SELECT AVG(ticket_price) FROM Event WHERE Event.venue_id = Venu.venue_id
) AS average_ticket_price
    -> FROM Venu;
+----------+---------------------------------+----------------------+
| venue_id | venue_name                      | average_ticket_price |
+----------+---------------------------------+----------------------+
|        1 | Chennai Kalyana Mandapam        |              25.0000 |
|        2 | Trivandrum Convention Center    |              20.0000 |
|        3 | Mysuru Palace Banquet Hall      |              30.0000 |
|        4 | Coimbatore Community Hall       |              23.0000 |
|        5 | Kochi Auditorium                |              18.0000 |
|        6 | Madurai Convention Hall         |              15.0000 |
|        7 | Bangalore Tech Park Auditorium  |              35.0000 |
|        8 | Hyderabad Banjara Hills Banquet |              25.0000 |
|        9 | Trichy Grand Plaza              |              12.0000 |
|       10 | Vizag Beach Resort              |              30.0000 |
+----------+---------------------------------+----------------------+
10 rows in set (0.00 sec)
```