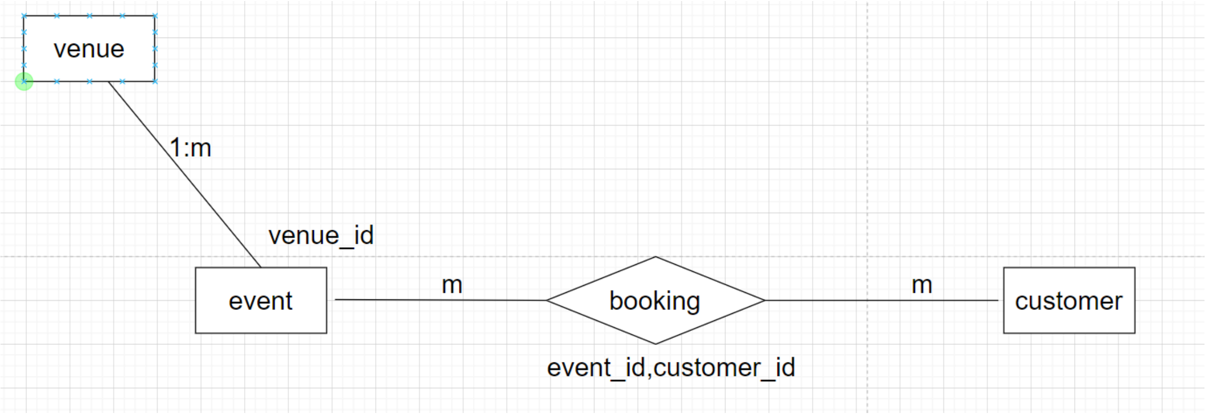
Assignment 1: Ticket Booking System



DB Schema

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venue(venue_id,venue_name,address)

event(event_id,event_name,event_date,event_time,total_seats,available_seats,ticket_price,event_type,venue_id,booking_id)

customer(customer_id,customer_name, email, phone_number,booking_id)

booking(booking_id,num_tickets,total_cost,booking_date,customer_id,event_id)

Tasks 1: Database Design:

1. Create the database named "TicketBookingSystem"
2. Write SQL scripts to create the mentioned tables with appropriate data types, constraints, and relationships.
   - Venu
   - Event
   - Customers
   - Booking
3. Create an ERD (Entity Relationship Diagram) for the database.
4. Create appropriate Primary Key and Foreign Key constraints for referential integrity.

Tasks 2: Select, Where, Between, AND, LIKE:

1. Write a SQL query to insert at least 10 sample records into each table.
2. Write a SQL query to list all Events.
3. Write a SQL query to select events with available tickets.
4. Write a SQL query to select events name partial match with ‘cup’.
5. Write a SQL query to select events with ticket price range is between 1000 to 2500.
6. Write a SQL query to retrieve events with dates falling within a specific range.
7. Write a SQL query to retrieve events with available tickets that also have "Concert" in their name.
8. Write a SQL query to retrieve users in batches of 5, starting from the 6th user.
9. Write a SQL query to retrieve bookings details contains booked no of ticket more than 4.

10. Write a SQL query to retrieve customer information whose phone number end with ‘000’
11. Write a SQL query to retrieve the events in order whose seat capacity more than 15000.
12. Write a SQL query to select events name not start with ‘x’, ‘y’, ‘z’

Tasks 3: Aggregate functions, Having, Order By, GroupBy and Joins:

1. Write a SQL query to List Events and Their Average Ticket Prices.
2. Write a SQL query to Calculate the Total Revenue Generated by Events.
3. Write a SQL query to find the event with the highest ticket sales.
4. Write a SQL query to Calculate the Total Number of Tickets Sold for Each Event.
5. Write a SQL query to Find Events with No Ticket Sales.
6. Write a SQL query to Find the User Who Has Booked the Most Tickets.
7. Write a SQL query to List Events and the total number of tickets sold for each month.
8. Write a SQL query to calculate the average Ticket Price for Events in Each Venue.
9. Write a SQL query to calculate the total Number of Tickets Sold for Each Event Type.
10. Write a SQL query to calculate the total Revenue Generated by Events in Each Year.
11. Write a SQL query to list users who have booked tickets for multiple events.
12. Write a SQL query to calculate the Total Revenue Generated by Events for Each User.
13. Write a SQL query to calculate the Average Ticket Price for Events in Each Category and Venue.
14. Write a SQL query to list Users and the Total Number of Tickets They've Purchased in the Last 30

Days.

Tasks 4: Subquery and its types

1. Calculate the Average Ticket Price for Events in Each Venue Using a Subquery.
2. Find Events with More Than 50% of Tickets Sold using subquery.
3. Calculate the Total Number of Tickets Sold for Each Event.
4. Find Users Who Have Not Booked Any Tickets Using a NOT EXISTS Subquery.
5. List Events with No Ticket Sales Using a NOT IN Subquery.
6. Calculate the Total Number of Tickets Sold for Each Event Type Using a Subquery in the FROM Clause.
7. Find Events with Ticket Prices Higher Than the Average Ticket Price Using a Subquery in the WHERE Clause.
8. Calculate the Total Revenue Generated by Events for Each User Using a Correlated Subquery.
9. List Users Who Have Booked Tickets for Events in a Given Venue Using a Subquery in the WHERE Clause.
10. Calculate the Total Number of Tickets Sold for Each Event Category Using a Subquery with GROUP BY.
11. Find Users Who Have Booked Tickets for Events in each Month Using a Subquery with DATE_FORMAT.
12. Calculate the Average Ticket Price for Events in Each Venue Using a Subquery