# Assignment 5

**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

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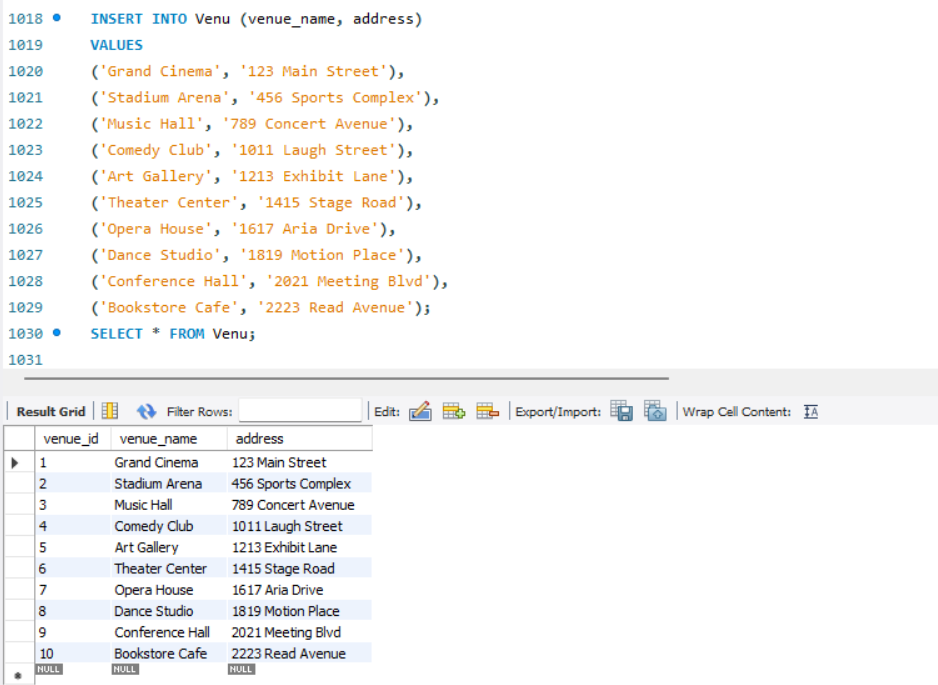
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4. Create appropriate Primary Key and Foreign Key constraints for referential integrity.

* Primary Keys:
  + Venu: venue\_id
  + Event: event\_id
  + Customer: customer\_id
  + Booking: booking\_id
* Foreign Keys:
  + Event: venue\_id references Venu (venue\_id)
  + Event: booking\_id references Booking (booking\_id)
  + Customer: booking\_id references Booking (booking\_id)
  + Booking: customer\_id references Customer (customer\_id)
  + Booking: event\_id references Event (event\_id)

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

1. Write a SQL query to insert at least 10 sample records into each table.



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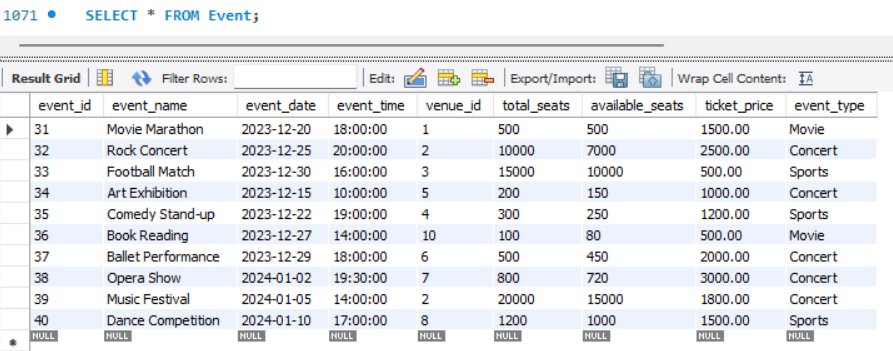
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2. Write a SQL query to list all Events.

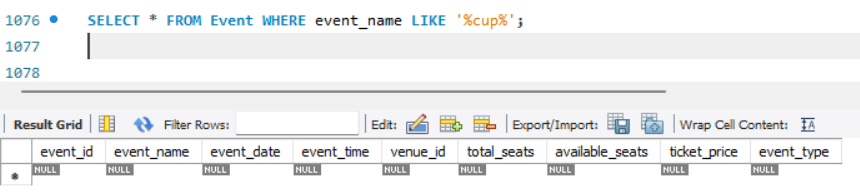


3. Write a SQL query to select events with available tickets.

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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.

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

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

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

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

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10. Write a SQL query to retrieve customer information whose phone number end with ‘000’

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11. Write a SQL query to retrieve the events in order whose seat capacity more than 15000.

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12. Write a SQL query to select events name not start with ‘x’, ‘y’, ‘z’

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

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

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

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

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

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

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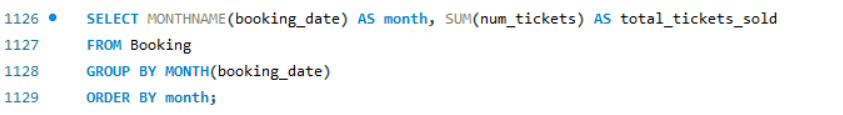
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6. Write a SQL query to Find the User Who Has Booked the Most Tickets.

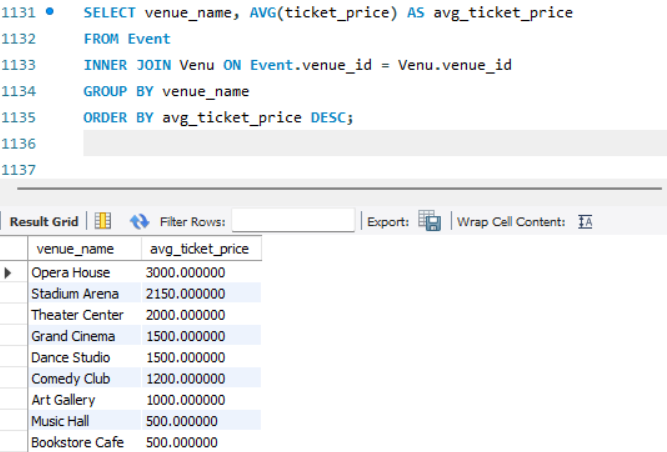
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7. Write a SQL query to List Events and the total number of tickets sold for each month.



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.

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

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11. Write a SQL query to list users who have booked tickets for multiple events.

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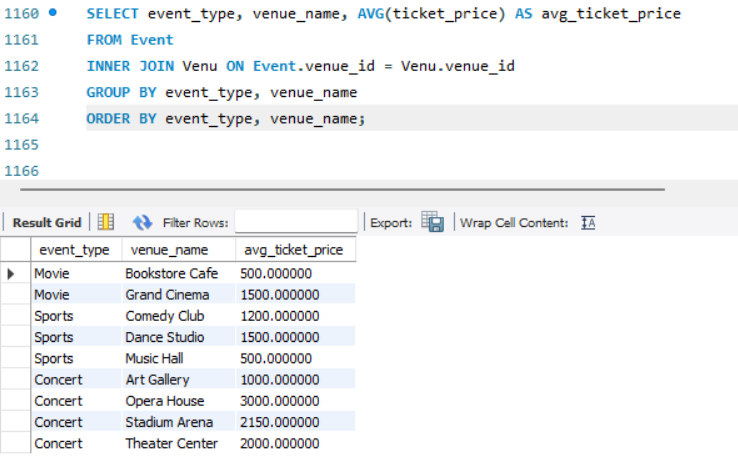
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12. Write a SQL query to calculate the Total Revenue Generated by Events for Each User.

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



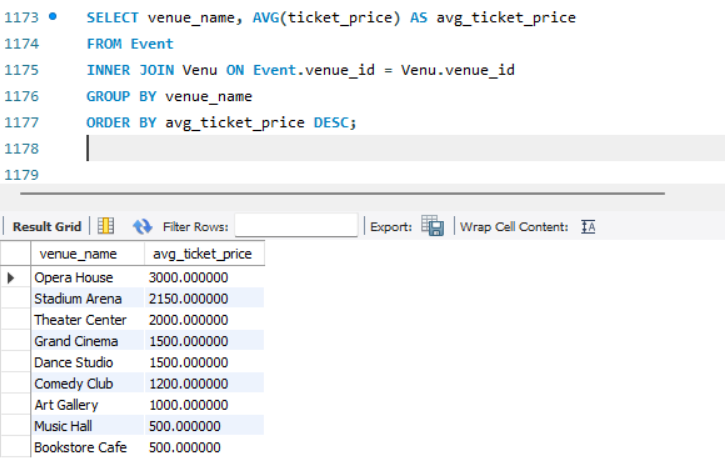
14. Write a SQL query to list Users and the Total Number of Tickets They've Purchased in the Last 30 Days.

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**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.

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

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

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

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

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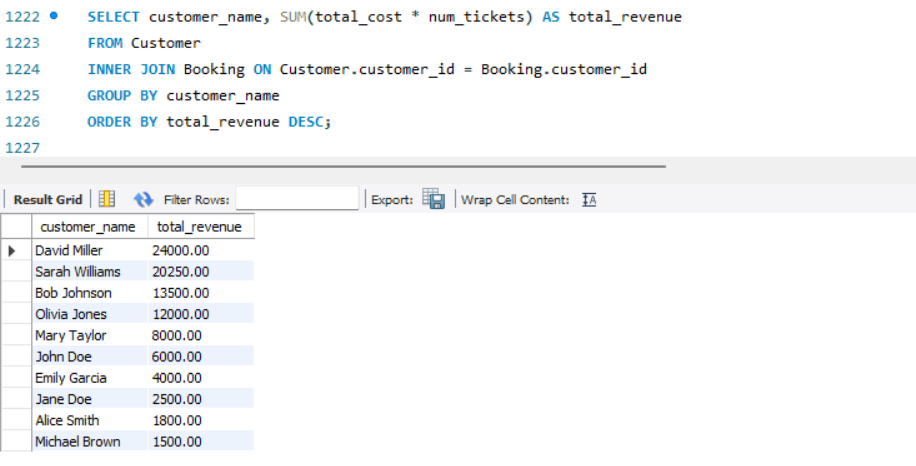
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7. Find Events with Ticket Prices Higher Than the Average Ticket Price Using a Subquery in the WHERE Clause.

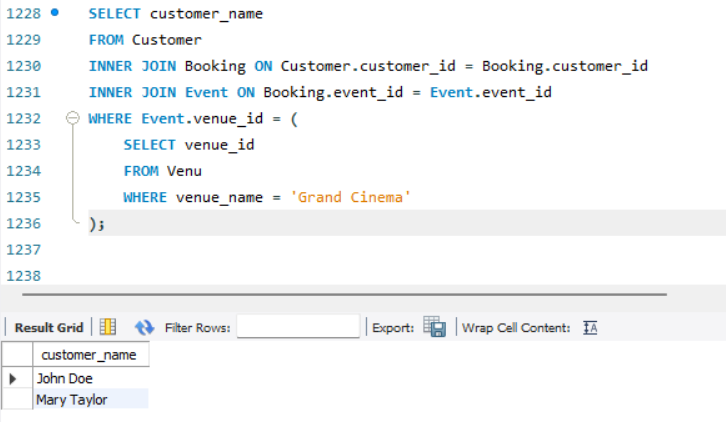
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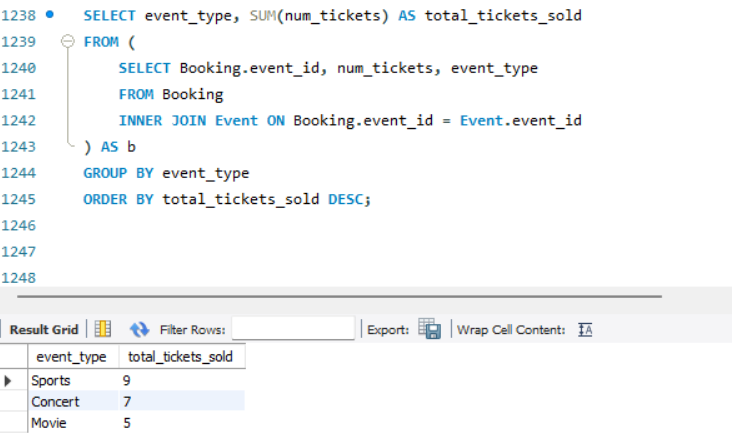
8. Calculate the Total Revenue Generated by Events for Each User Using a Correlated Subquery.



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.

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

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