TEAM 15
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University Event Management System

Comments for P2: "A Venue can only be booked once? The relationship between attendance to the user isn't clear"

1. **Relationship between Booking and Venue:**
- The Booking entity references VenueID as a foreign key, representing a booking made for a specific venue.
- The relationship is indicated as For, implying that a Booking is made for a specific Venue.

   Cardinality:

   - One Venue can be booked many times.
   - One Booking is associated with one Venue.
   - This represents a one-to-many relationship between Venue and Booking.

   This relationship suggests that the booking is tied to a venue's availability and details like capacity and location.

2. **Relationship between User and Attendance:**
- A User can attend many Events. For each event they attend, an attendance record will be created.
- This means that a User can have multiple Attendance records, each one corresponding to a different event.
- Each Attendance record is associated with only one User who attended a particular event.
- This implies a one-to-many relationship from User to Attendance (i.e., one user can have many attendance records, but each attendance record belongs to just one user).

   Example:

   - If a user attends 3 different events, there will be 3 attendance records for that user (one per event).

   This relationship is indirect because the attendance records are related to both the user and the event. A user attends an event, and the system records this attendance in the Attendance entity. Therefore, attendance is recorded based on the user and the event together.

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Changes Made to the Initial ERD

1. **Venue Entity Updates:**
● The Venue entity now includes a foreign key that connects it to the VenueTypeID from the newly created VenueType table. This update provides a more detailed way to categorize venues, enabling better classification based on their types.
● **VenueType Change:** We've introduced a new VenueType table that categorizes venues using attributes like VenueTypeName. Previously, there wasn't a clear categorization of venue types.

2. **Event Resource Allocation:**
● The new EventResourceAllocation entity oversees how resources are allocated to events, establishing the many-to-many relationship between Event and Resource.
● **Many-to-Many Update:** The many-to-many relationship between Event and Resource is now clearly defined through the EventResourceAllocation entity, which tracks the specific quantity of resources allocated to each event.

3. **Sponsorship Enhancements:**
● The new EventSponsor entity now manages the many-to-many relationship between Events and Sponsors, keeping track of sponsorship details such as the amount and type for each event.
● **Many-to-Many Update:** The many-to-many relationship between Event and Sponsor is now managed by the EventSponsor table, enabling multiple sponsors to support various events.

4. **Ticket and Registration Clarifications:**
● The relationship between Ticket, User, and Event is now more straightforward, with tickets issued to users for specific events. This highlights the association between users and events during the registration process.

5. **Attendance Tracking:**
   ● The Attendance entity is now connected to both the User and the Event, allowing for more detailed tracking of attendee information. This relationship was not clearly defined in the original ERD.

6. **Status Tracking for Entities:**
   ● Entities like Ticket, Payment, and Registration now include status attributes—TicketStatus, PaymentStatus, and RegistrationStatus—providing more detail for monitoring their progress.

7. **Resource and Allocation Management:**
   ● The Resource entity is now connected to EventResourceAllocation, enhancing resource management by tracking allocations for specific events.

8. **Entity Descriptions:**
   ● New entities like EventCategory and VenueType have been introduced to help categorize events and venues. The VenueType table is particularly significant, as it adds flexibility in defining various types of venues, such as indoor, outdoor, conference halls, and more.

Changes in Many-to-Many Relationships

1. **Event and Resource:**
   ● The many-to-many relationship between Event and Resource is now addressed through the new EventResourceAllocation entity, which tracks the allocation of resources to specific events.

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2. **Event and Sponsor:**
   ● The many-to-many relationship between Event and Sponsor is now handled by the EventSponsor entity, which provides more information about the types and amounts of sponsorship for each event.

3. **Venue and VenueType:**
   ● A new many-to-one relationship has been established between Venue and VenueType, allowing each venue to be assigned a specific type. This enhances the flexibility of the venue classification system.

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Logical ER Diagram for University Event Management System:
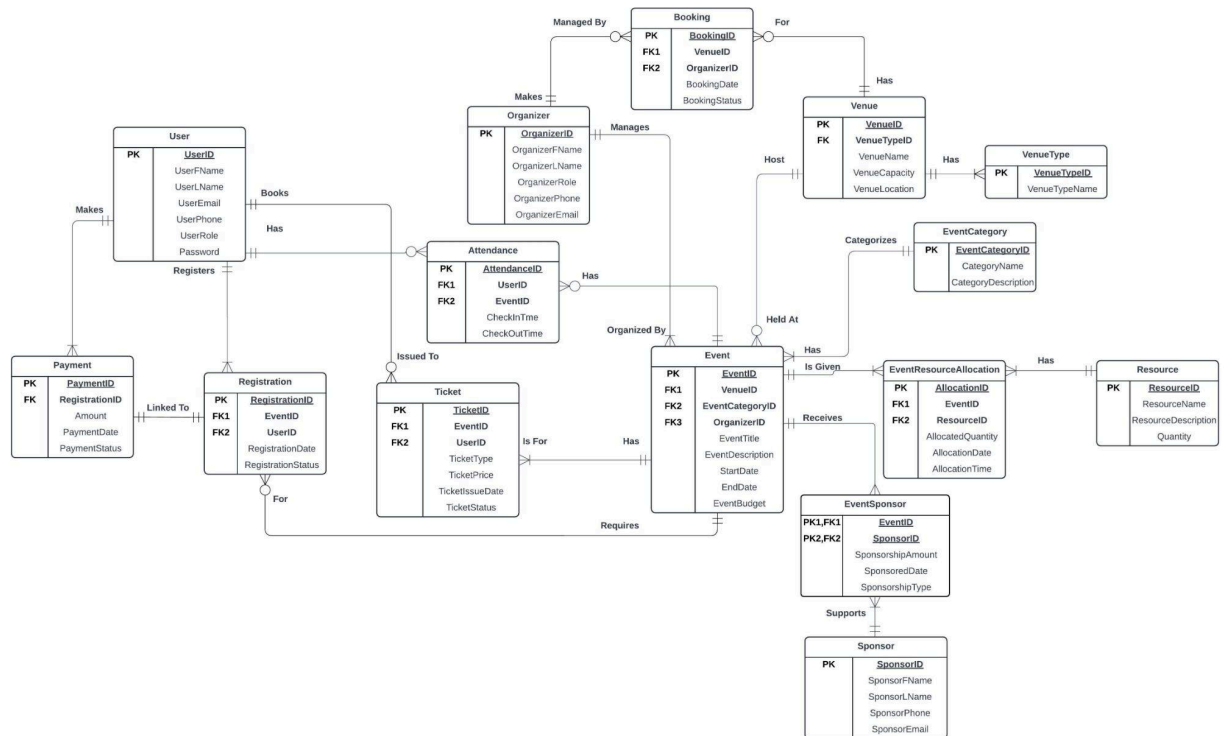
ERD Link:
https://lucid.app/lucidchart/fc416424-7f0a-41ca-8843-30ca62cbc770/edit?viewport_loc=-88
4%2C-1516%2C3274%2C2096%2C0_0&invitationId=inv_1c084d7d-775b-4134-bc71-5613
2dd90fa5

GitHub Link: https://github.com/VaranaNavadiya/DAMG_UEMS