**DataBase Systems**

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**CS-2005-DataBase Systems**

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Project Iteration 1

# **Entity Relationship Diagram (EERD)**

## Entity 1: User (Strong Entity)

### Attributes

* UserID (key attribute)
* Name (simple attribute)
* Password (simple attribute)
* Email (multi-valued attributes as a person can have multiple email ids)
* PhoneNo (multi-valued attributes as a person can have multiple phone numbers)
* Preferences (multi-valued attributes as a person can have multiple preferences like concerts, workshops etc.)
* UserType (Attendee, Organiser, Admin, Vendor, Sponsor): constraints (disjoint, total participation)

### Relationships

User **manages** Events (1 to M): A user can manage multiple events

User **provides** Feedback (1 to M): A user can provide multiple feedbacks

## Entity 2: Attendee (Strong Entity)

### Attributes

* AttendeeID (key attribute)
* Feedback (simple attribute)
* Rating (simple attribute)

## Entity 3: Organiser (Strong Entity)

### Attributes

* OrganiserID (key attribute)

## Entity 4: Admin (Strong Entity)

### Attributes

* AdminID (key attribute)

### Relationships

Admin **approves** Events (1 to M): An admin approves multiple events

## Entity 5: Vendor (Strong Entity)

### Attributes

* VendorID (key attribute)
* ServiceType (Simple attribute)

### Relationships

Vendor **approves** Sponsors (M to M): A vendor approves multiple events

## Entity 6: Sponsor (Strong Entity)

### Attributes

* SponsorID (key attribute)
* contributionType (simple attribute)

### Relationships

Sponsor **supports** Events (M to 1): Many sponsors support 1 event

## Entity 7: Event (Strong Entity)

### Attributes

* EventID (key attribute)
* TicketCapacity (simple attribute)
* Title (Simple attribute)
* Category (simple attribute)
* Description (simple attribute)
* Location (city, country, zipCode, state, streetNo, buildingNo): composite attribute
* Date (start date, end date): composite attribute
* Time (start time, end time): composite attribute
* Status (Pending, Approved, Completed): constraints (disjoint, total participation)

### Relationships

Event **has** Tickets (1 to M): An event has many tickets

Event **is managed by** Users (M to 1): Many events can be managed by a User

Event **is supported by** Sponsor (1 to M): An event is supported by many Sponsors

## Entity 8: Ticket (Weak Entity)

### Attributes

* TicketID (key attribute)
* Price (simple attribute)
* Quantity (Simple attribute)
* Category (VIP, general) constraints: Disjoint, total participation

### Relationships

Tickets **are available** for an event (M to 1): Many tickets are available for an Event

## Entity 9: Feedback (Weak Entity)

### Attributes

* FeedbackID (key attribute)
* Rating (simple attribute)
* Comments (simple attribute)

### Relationships

Feedback is provided by User (M to 1): Many feedbacks can be provided by a User

## Entity 10: Payment (Strong Entity)

### Attributes

* paymentID (key attribute)
* status (simple attribute)
* amount (simple attribute)
* method (simple attribute)

### Relationships

Payment **is made for** Event (1 to M)

## Entity 11: Contract (Strong Entity)

### Attributes

contractID (key attribute)

details (simple attribute)

paymentAmount (simple attribute)

# **Relational Model**

## Table 1: User

(userID, name, password, type)

## Table 2: phoneNo

(contact\_number) =a person can have multiple phone numbers

## Table 3: email

(contact\_number) =a person can have multiple phone numbers

## Table 4: preferences

(preferences) = multi-valued attributes as a person can have multiple preferences like concerts, workshops etc.

## Table 5: (User Type 1) Attendee

(UserID (key from parent attribute), AttendeeID, feedback, rating)

## Table 6: (User Type 2) Organiser

(UserID (key from parent attribute), OrganiserID)

## Table 7: (User Type 3) Admin

(UserID (key from parent attribute), AdminID)

## Table 8: (User Type 4) Vendor

(UserID (key from parent attribute), VendorID, serviceType, SponsorID(fk))

## Table 9: (User Type 5) Sponsor

(UserID (key from parent attribute), SponsorID, VendorID(fk), contributionType, EventID(fk), ContractID(fk))

## Table 10: Contract

(contractID, SponsorID(fk))

## Table 11: Event

(EventID, UserID(fk), AdminID(fk), ticketTicket, title, category, startTime, endTime, description, startDate, endDate, city, country, zipCode, state, buildingNo, streetNo, status, PaymentID(fk))

## Table 12: Ticket

(ticketID, price, quantity, type, eventID(fk))

## Table 13: Payment

(paymentID, status, method, amount)

## Table 14: Feedback

(UserID(fk), feedbackID, rating, comments)

## Table 15: VIP Ticket

(TicketID(fk), VIPTicketNo)

## Table 16: General Ticket

(TicketID(fk), GTicketNo)

## Table 17: Pending Event

(eventID(fk)

## Table 18: Approved Event

(eventID(fk)

## Table 19: Completed Event

(eventID(fk)