



CSE302: Database Systems (Section No.7)

[FALL 25]

Project Report

EWU Event Management WebApp

Submitted by (Group 8):

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<https://github.com/kamrulhasan-arch/Ewu-event-management>

<https://github.com/rupaisanzida-create/ewu-event-management>

https://github.com/MahAbubALamBadHon/ewu_event_management

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1. Project Description

The EWU Event Management System is a web-based database application designed to automate and streamline event planning and management processes at East West University. This system simulates a real-world scenario where educational institutions require efficient coordination of various academic and recreational events including seminars, workshops, conferences, cultural programs, sports tournaments, and corporate meetings.

2. Key Features

Administrative Functions:

- Complete event lifecycle management from creation to completion
- Venue administration with capacity planning and cost management
- Meal package coordination with catering company partnerships
- Real-time booking monitoring and approval workflows
- Comprehensive financial reporting and cashflow analysis
- Sponsor relationship management with funding allocation tracking
- Equipment and logistics coordination for event setup
- Customer account oversight and booking analytics
- Multi-level dashboard with operational insights

Customer Functions:

- Secure user registration with profile management capabilities
- Event discovery with detailed information and filtering options
- Online booking system with real-time availability checking
- Integrated guest management for event invitations
- Multi-method payment processing with transaction history
- Personal booking dashboard with status tracking
- Post-event feedback and rating system
- Account management with booking history analytics

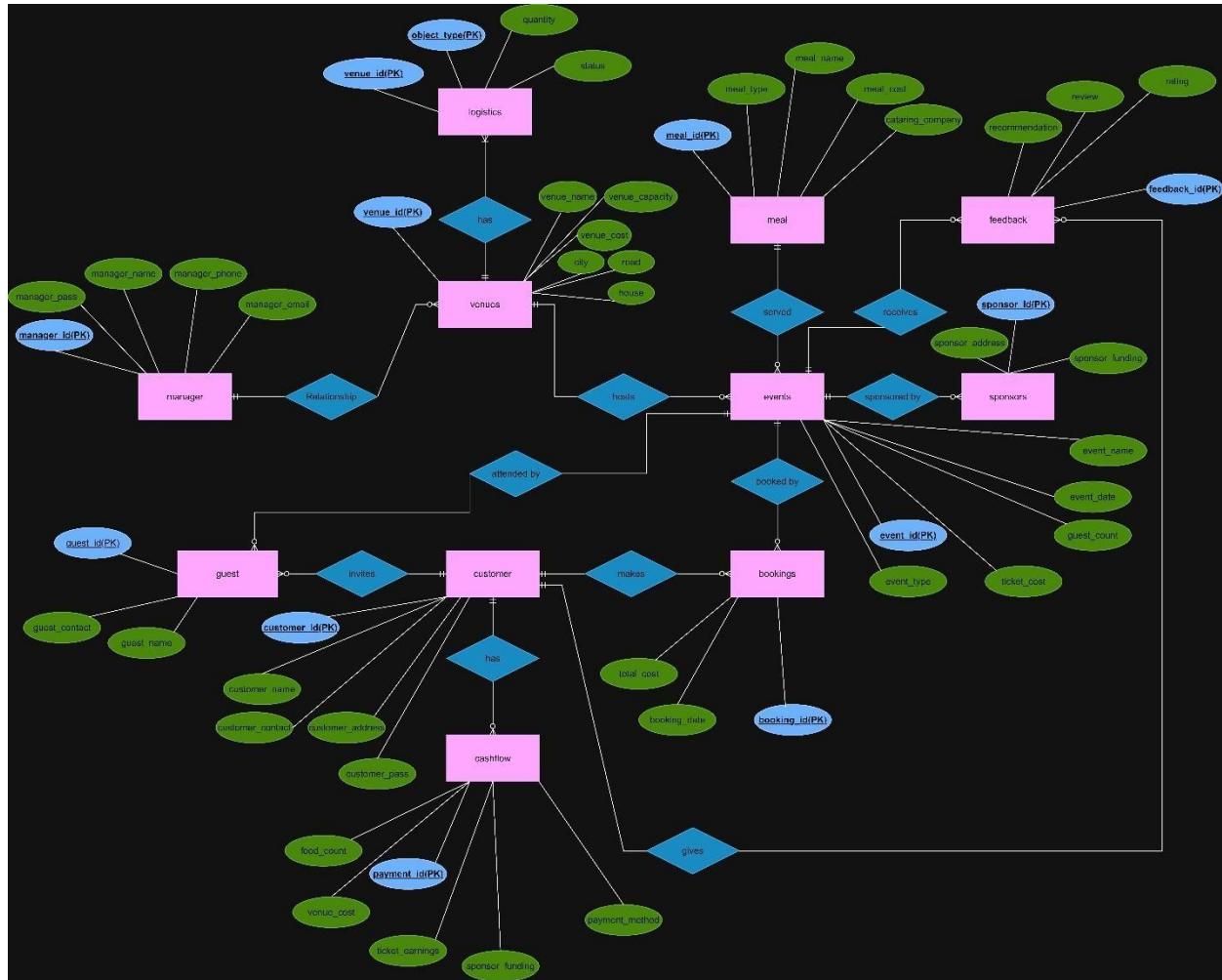
System-Level Features:

- Role-based access control with secure authentication
- Automated unique ID generation for all entities
- Data validation and integrity constraint enforcement
- Real-time booking conflict prevention

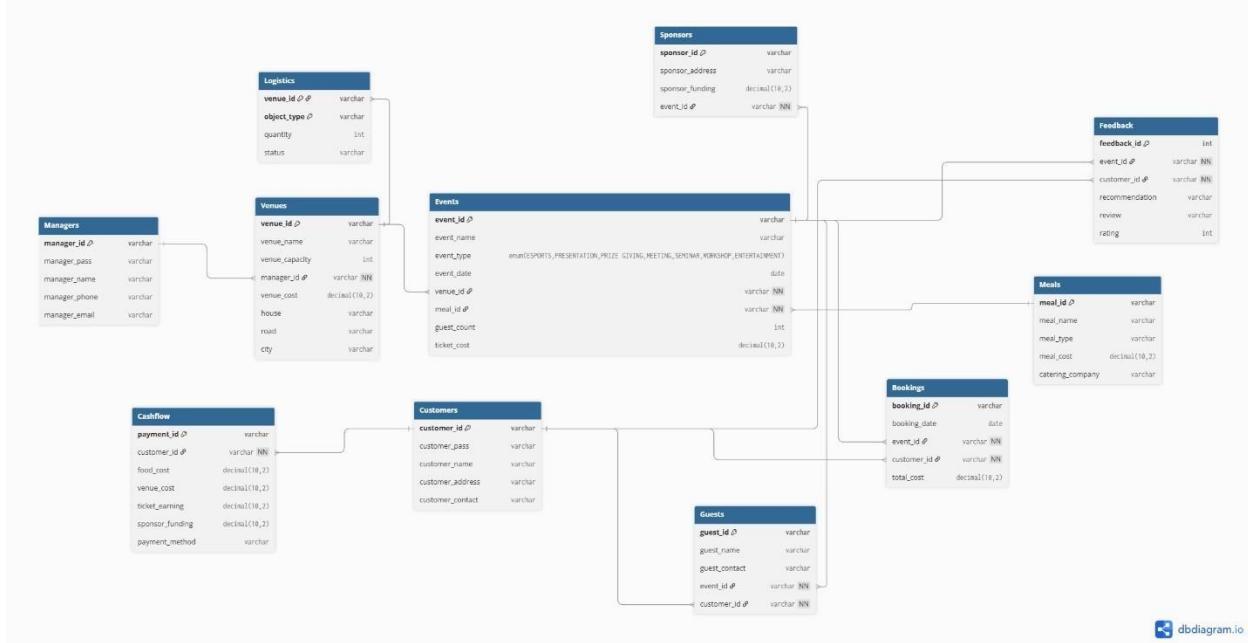
- Automated financial calculations across related tables
- Comprehensive audit trails for administrative actions
- Responsive web interface compatible across devices

3. Database Design

3.1 E-R Model



3.2 Relational Data Model



MANAGER

```

    └── manager_id VARCHAR(5) [PRIMARY KEY]
    └── manager_pass VARCHAR(60) [NOT NULL]
    └── manager_name VARCHAR(100)
    └── manager_phone VARCHAR(20)
    └── manager_email VARCHAR(100)
  
```

VENUES

```

    └── venue_id VARCHAR(5) [PRIMARY KEY]
    └── venue_name VARCHAR(100)
    └── venue_capacity INT
    └── manager_id VARCHAR(5) [FOREIGN KEY → Managers.manager_id]
    └── venue_cost DECIMAL(12,2)
    └── house VARCHAR(100)
    └── road VARCHAR(100)
    └── city VARCHAR(100)
    └── MEALS
  
```

```
    └── meal_id VARCHAR(5) [PRIMARY KEY]
    └── meal_name VARCHAR(100)
    └── meal_type VARCHAR(50)
    └── meal_cost DECIMAL(12,2) └─
catering_company VARCHAR(100)
```

EVENTS

```
    └── event_id VARCHAR(5) [PRIMARY KEY]
    └── event_name VARCHAR(100)
    └── event_type ENUM('ESPORTS','PRESENTATION','PRIZE
GIVING','MEETING','SEMINAR','WORKSHOP','ENTERTAINMENT')
    └── event_date DATE
    └── venue_id VARCHAR(5) [FOREIGN KEY → Venues.venue_id]
    └── meal_id VARCHAR(5) [FOREIGN KEY → Meals.meal_id]
    └── guest_count INT
    └── ticket_cost DECIMAL(12,2)
    └── UNIQUE CONSTRAINT (venue_id, event_date, event_type)
```

CUSTOMERS

```
    └── customer_id VARCHAR(5) [PRIMARY KEY]
    └── customer_pass VARCHAR(60) [NOT NULL]
    └── customer_name VARCHAR(100)
    └── customer_address VARCHAR(200) └─
customer_contact VARCHAR(20)
```

BOOKINGS

```
    └── booking_id VARCHAR(5) [PRIMARY KEY]
    └── booking_date DATE
    └── event_id VARCHAR(5) [FOREIGN KEY → Events.event_id CASCADE DELETE] └─
customer_id VARCHAR(5) [FOREIGN KEY → Customers.customer_id CASCADE DELETE]
    └── total_cost DECIMAL(12,2)
```

GUESTS

```
    └── guest_id VARCHAR(5) [PRIMARY KEY]
    └── guest_name VARCHAR(100)
    └── guest_contact VARCHAR(20)
    └── event_id VARCHAR(5) [FOREIGN KEY → Events.event_id CASCADE DELETE]
```

└─ customer_id VARCHAR(5) [FOREIGN KEY → Customers.customer_id CASCADE DELETE]

SPONSORS

└─ sponsor_id VARCHAR(5) [PRIMARY KEY]
└─ sponsor_address VARCHAR(200) ┌─
 sponsor_funding DECIMAL(12,2)
└─ event_id VARCHAR(5) [FOREIGN KEY → Events.event_id CASCADE DELETE]

CASHFLOW

└─ payment_id VARCHAR(5) [PRIMARY KEY]
└─ customer_id VARCHAR(5) [FOREIGN KEY → Customers.customer_id CASCADE DELETE]
└─ food_cost DECIMAL(12,2)
└─ venue_cost DECIMAL(12,2)
└─ ticket_earning DECIMAL(12,2)
└─ sponsor_funding DECIMAL(12,2) ┌─
 payment_method VARCHAR(50)

FEEDBACK

└─ feedback_id INT [PRIMARY KEY AUTO_INCREMENT]
└─ event_id VARCHAR(5) [FOREIGN KEY → Events.event_id CASCADE DELETE] ┌─
 customer_id VARCHAR(5) [FOREIGN KEY → Customers.customer_id CASCADE DELETE]
└─ recommendation VARCHAR(100)
└─ review VARCHAR(500)
└─ rating INT

LOGISTICS

└─ venue_id VARCHAR(5) [FOREIGN KEY → Venues.venue_id CASCADE DELETE]
└─ object_type VARCHAR(50)
└─ quantity INT
└─ status VARCHAR(50)
└─ PRIMARY KEY (venue_id, object_type)

4. Tools & Technologies Used

1. HTML,CSS(Front end)
 2. PHP (Back end)
 3. MySql(Database)
 4. XAMPP (for local hosting)
-

5. Role Assignment

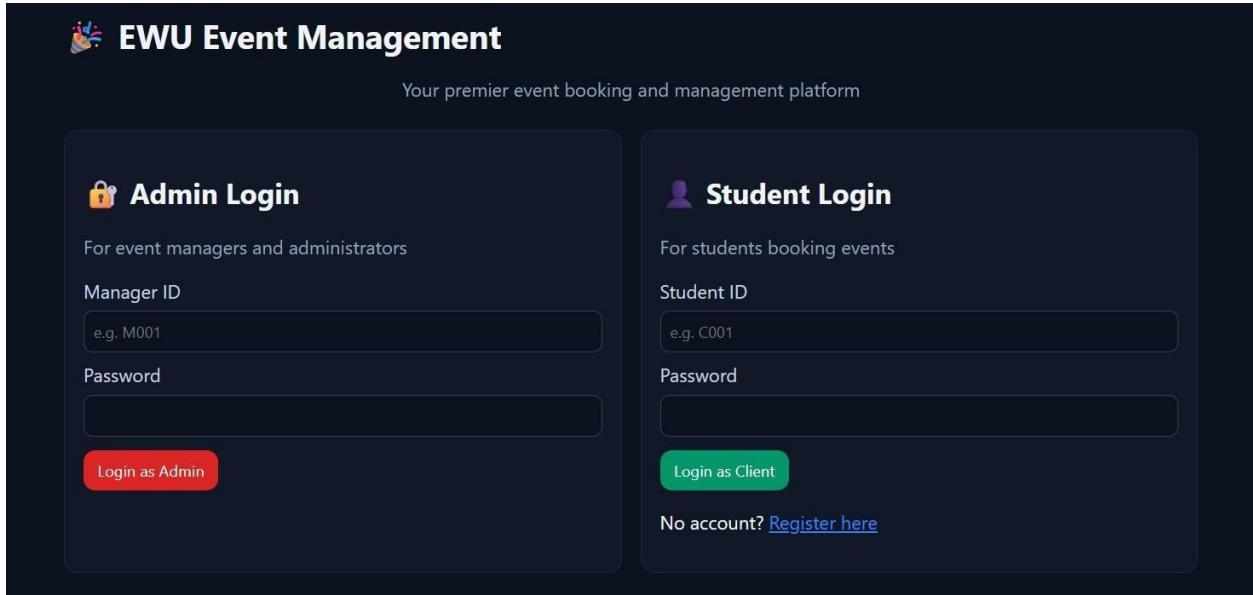
Administrator Role (Admin)

- **Authentication Method:** Manager ID and encrypted password • **Access Level:** Complete system administration privileges • **Core Responsibilities:**
 - Event lifecycle management including creation, modification, and deletion
 - Venue inventory management with capacity planning and pricing strategies
 - Meal package administration and catering partner coordination
 - Real-time booking oversight with approval and cancellation capabilities
 - Comprehensive financial monitoring including revenue, expenses, and profitability analysis
 - Sponsor relationship management with funding tracking and partnership coordination
 - Equipment and logistics management for successful event execution
 - System analytics and operational reporting for strategic decision making
 - Customer account management and support resolution

Customer Role (Students)

- **Authentication Method:** Customer ID and encrypted password with registration capability
- **Access Level:** Personal account management and event interaction functionality • **Core Responsibilities:**
 - Personal profile management including contact information and preferences
 - Event discovery with advanced filtering and detailed information access
 - Online booking capabilities with real-time availability verification
 - Guest list management for event attendee coordination
 - Integrated payment processing with multiple payment method support
 - Personal booking history with status tracking and modification options
 - Post-event feedback submission with rating and review capabilities
 - Account dashboard with personal analytics and upcoming event notifications

6. GUI Screenshot Home page:



STUDENT/CUSTOMER SIDE:

The screenshot shows the student/customer side dashboard. At the top, there is a navigation bar with links: Profile, Book Events, My Bookings, Payments, Feedback, and Logout. The main area starts with a "Welcome, sanbi" message. Below it are two sections: "Quick Stats" and "Quick Actions". "Quick Stats" displays: My Bookings: 1, My Guests: 1, and Available Events: 1. "Quick Actions" provides links to Book New Event, View My Bookings, and Leave Feedback. Further down is a "Upcoming Events" section with a table:

Event	Type	Date	Venue	Capacity	Ticket Price	Action
FORTNITE FINALS ID: 1		2025-10-20	Blue Moon Hall	600	₹300.00	Book Now

Below this is a "My Recent Bookings" section.

Booking Events Page:

The screenshot shows a dark-themed web application for booking events and managing guests. At the top, there is a navigation bar with links: Dashboard, Profile, My Bookings, Payments, Feedback, and Logout.

Available Events:

- FORTNITE FINALS**
- Type:** [empty]
- Date:** 2025-10-20
- Venue:** Blue Moon Hall
- Price:** ₦300.00

Select to Book

Add Guest to Event:

- Guest Name:** [empty input field]
- Guest Contact:**

 - Phone number:** [empty input field]

- Select Event:** -- Choose Event --
- Add Guest**

My Guests:

Name	Contact	Event	Event Date
abir	011111111	FORTNITE FINALS	2025-10-20

Payment Page:

The screenshot shows a dark-themed web application for managing payments. At the top, there is a navigation bar with links: Dashboard, Book Events, My Bookings, Feedback, and Logout.

Payments

Pending Payments:

Booking	Event	Date	Amount	Status	Action
1	FORTNITE FINALS	2025-10-20	₦300.00	✓ Paid	Completed

Payment History:

Payment ID	Event	Date	Amount	Method	Details
P406	FORTNITE FINALS	2025-10-20	₦300.00	Bkash	Food: ₦120.00 Venue: ₦25000.00

Payment Information:

Accepted Payment Methods:

Admin Side:

The Admin Dashboard interface features a dark-themed header with navigation links: Events, Venues, Meals, Bookings, Sponsors, Logistics, Financial Reports, and Logout. Below the header is a main title "Admin Dashboard" and a welcome message "Welcome, M001". The dashboard is divided into three main sections: "System Overview", "Financial Summary", and "Quick Actions".

- System Overview:** Displays summary statistics:
 - Total Events: 1
 - Total Customers: 1
 - Total Venues: 10
 - Total Bookings: 1
 - Total Sponsors: 2
- Financial Summary:** Displays financial metrics:
 - Total Revenue: ₦300.00
 - Sponsor Funding: ₦11,000.00
 - Events This Week: 0
- Quick Actions:** A list of management tasks:
 - Manage Events
 - Manage Venues
 - View Bookings
 - Manage Sponsors
 - Financial Reports

Below these sections is a "Recent Events" table:

ID	Name	Date	Venue	Status
1	FORTNITE FINALS	2025-10-20	Blue Moon Hall	Upcoming

Event Creation and management page:

The Event creation page has a dark-themed header with navigation links: Dashboard, Venues, Meals, Bookings, Sponsors, Logistics, Financial Reports, and Logout. The main content area is titled "Events" and contains a "Create Event" form.

The form includes the following fields:

- Event ID:** Input field with placeholder "e.g. EV02".
- Event Name:** Input field with placeholder "e.g. Annual Conference".
- Event Type:** A dropdown menu currently set to "ESPORTS". Other options include PRESENTATION, PRIZE GIVING, Meeting, Seminar, Workshop, and ENTERTAINMENT. The "PRIZE GIVING" option is highlighted with a blue background.
- Guest Count:** Input field with placeholder "-- Select Meal (Optional) --".

Cashflow page:

Dashboard Events Venues Meals Bookings Sponsors Logistics Logout

💰 Financial Reports & Cashflow

📊 Financial Overview

Total Revenue: ₹300.00

Total Expenses: ₹25,120.00

Sponsorship: ₹11,000.00

Net Profit: ₹-13,820.00

💳 Payment Methods

Bkash 1 payments | ₹300.00

💸 Recent Transactions

Payment ID	Customer	Event	Amount	Method	Details
P406	sanbi C001	N/A No booking	₹300.00	Bkash	Food: ₹120.00 Venue: ₹25000.00 Sponsor: ₹0.00

Logistics page:

🔧 Logistics & Equipment Management

💻 Equipment Overview

Total Equipment: 0

Available: 0

In Use: 0

✚ Add Equipment

Venue

V016 - Crystal Dome

- Select Venue --
- V011 - Blue Moon Hall
- V016 - Crystal Dome
- V014 - Diamond Convention
- V013 - Emerald Pavilion
- V012 - Golden Crown Center
- V018 - Magnolia Garden
- V019 - Orchid Center
- V015 - Rose Valley Hall
- V020 - Sapphire Plaza
- V017 - Star Light Auditorium

💻 Equipment by Venue

No equipment registered. Add equipment above!

Deleting:

All Bookings						
Booking ID	Date	Event	Customer	Total	Status	Actions
1	2025-09-02	FORTNITE FINALS 1 - 2025-10-20	sanbi C001	₹300.00	Upcoming	<button>Delete</button>

Booking deleted successfully

Updating:

My Profile

Customer ID: C001

Name: sanbi

Contact: 01888888888

Address: mohammadpur

Full Name

Address

Contact Number

Update Profile

Account Statistics

Total Bookings: **0**

Total Spent: **₹0.00**

Guests Added: **1**

Reviews Given: **0**

Change Password

Current Password

New Password

Confirm New Password

Change Password

Sponsors page:

The screenshot shows a dark-themed web application for managing sponsors. On the left, there's a sidebar with a 'Sponsorship Statistics' section displaying the following data:

- Total Sponsors: **2**
- Total Funding: **₹11,000.00**
- Average Funding: **₹5,500.00**

On the right, there's a large form titled '+ Add New Sponsor' with the following fields:

- Sponsor ID: A text input field with placeholder text 'e.g. S021'.
- Sponsor Address: A text input field with placeholder text 'Company address'.
- Funding Amount: A text input field with placeholder text '0.00'.
- Assign to Event: A dropdown menu with the placeholder text '-- Select Event --'.

At the bottom of the sidebar, there's a button labeled 'Add Sponsor' in a green rounded rectangle.

7. Conclusion

This project successfully implemented a comprehensive event management system that demonstrated practical application of database design principles, role-based authentication, and complex business logic while providing valuable experience in web application development and real-world problem solving.