ENTERPRISE PROGRAMMING

Project : Event Management System(EMS).

An Event Management System (EMS) is a software application or platform designed to facilitate the planning, organization, execution, and monitoring of various types of events. These events can range from small meetings, conferences, concerts, and festivals. An EMS provides tools to manage the entire event lifecycle, from initial planning to post-event analysis.  
Allows event organizers to create and manage event details such as dates, venues, agendas, and schedules.

Supports different types of events, like one-time events, recurring events, or multi-day events.  
  
**Tables:**

**1. Event Table**

Purpose: This table stores information about each event being managed in the system.

Columns:

event\_id (Primary Key): Unique identifier for each event.

event\_name: Name of the event.

event\_date: Date and time of the event.

venue\_id (Foreign Key): References the venue table to specify where the event is held.

organizer\_id (Foreign Key): References the employee table to indicate who is organizing the event.

description: Detailed description of the event.

Relationships:

One event occurs at one venue (venue\_id).

One event is organized by one employee (organizer\_id).

**2. Venue Table**

Purpose: This table stores information about the venues where events are held.

Columns:

venue\_id (Primary Key): Unique identifier for each venue.

venue\_name: Name of the venue.

location: Physical location or address of the venue.

capacity: Maximum number of people the venue can accommodate.

Relationships:

One venue can host multiple events.

**3. Employee Table**

Purpose: This table stores information about the employees who manage or organize events.

Columns:

employee\_id (Primary Key): Unique identifier for each employee.

name: Employee’s name.

role: Job role or title (e.g., event manager, coordinator).

contact\_info: Contact details for the employee.

Relationships:

One employee can organize multiple events (event table references employee\_id as organizer\_id).

**4. EmployeePass Table**

Purpose: This table stores information about the passes issued to employees for accessing certain events or venues.

Columns:

pass\_id (Primary Key): Unique identifier for each pass.

employee\_id (Foreign Key): References the employee table to indicate which employee the pass is issued to.

event\_id (Foreign Key): References the event table to indicate which event the pass is valid for.

valid\_from: Start date and time for the pass validity.

valid\_to: End date and time for the pass validity.

Relationships:

One employee can have multiple passes for different events.

Each pass is tied to a specific event.

**5. Customer Table**

Purpose: This table stores information about customers who attend events.

Columns:

customer\_id (Primary Key): Unique identifier for each customer.

name: Customer’s name.

email: Customer’s email address.

phone: Customer’s phone number.

Relationships:

One customer can attend multiple events, which is handled through the customerpass table.

**6. CustomerPass Table**

Purpose: This table stores information about the passes issued to customers for attending events.

Columns:

pass\_id (Primary Key): Unique identifier for each pass.

customer\_id (Foreign Key): References the customer table to indicate which customer the pass is issued to.

event\_id (Foreign Key): References the event table to indicate which event the pass is valid for.

purchase\_date: Date and time when the pass was purchased.

Relationships:

One customer can have multiple passes for different events.

Each pass is tied to a specific event.

**Project Workflow**

Event Creation:

An administrator uses the system to create a new event. The EventService interacts with the EventRepository to persist the new event in the event table in MySQL.

Venue Assignment:

The system assigns a venue to the event. This is managed by updating the venue\_id field in the event table, linking it to the appropriate record in the venue table.

Employee Assignment and Pass Issuance:

An employee is assigned to manage the event. The EmployeeService and EmployeepassService handle the assignment and generate a pass, which is stored in the employeepass table with references to both the employee and event tables.

Customer Registration:

Customers register for the event. Their information is stored in the customer table, and a corresponding pass is issued, recorded in the customerpass table.

Data Retrieval:

When needed, the system can retrieve and display data, such as a list of events a customer has registered for, the details of a venue, or the employees managing a specific event. This is done by executing SQL queries or using ORM (object relational mapping)features to fetch and display the relevant data.

**Workflow diagram:**

