app-dev-lab-sept-2025-project                   Updated automatically every 5
                                                minutes

# Event Management System

This application should be designed to streamline event organization and management by providing a unified platform for all types of users.

It supports multiple user roles, including event organizers and attendees, enabling interaction and coordination within the system. Organizers can efficiently manage and promote their events, while attendees can easily discover and browse a wide range of upcoming events happening around them.

## Frameworks to be used

- Express for API
- ReactJS for UI
- Bootstrap, Tailwind etc., if required
- Postgres for database
- Typeorm for database wrapper
- Redis for caching (optional)

**Note:**
All demos should be possible on your local machine

The database must be created programmatically (via table creation or model code).

## Roles and Functionalities

The system allows 3 types of roles:

**1 Admin (manage users, handle reported events)**

    a. Admin is a pre-existing user responsible for managing user accounts.
    b. Admin monitors platform activity, and handles reported or inappropriate events.
    c. Admin approves every Event Organizer's Registration
    d. Admin ensures the platform operates smoothly, securely, and in compliance with community standards.

**2 Event Organizers (create/manage only their own events)**

    a. Event Organizers can create, edit, and manage their own events.
    b. They are responsible for providing event details, scheduling, ticketing (if applicable), and engaging with attendees.
    c. They can only modify or delete events they have created, ensuring proper ownership and accountability.

**3 Attendees / Customers (register/book events, leave reviews)**

    a. They can register, login and update their profile.
    b. They can book event tickets, view event details

    c.  Share feedback or reviews after attending.

## Key Terminologies

**1. Admin:** The Admin is the superuser of the app who has the highest level of access and control within the system.

**2. Event Organizers:** Event Organizers are users who create, manage, and oversee their own events on the platform.

**3. Attendees/Customers:** Attendees are end-users who explore and participate in events hosted on the platform. Their engagement helps organizers improve events and maintain the platform's credibility.

**4. Event:** An **event** is a scheduled activity or gathering created by an organizer for attendees to discover, register for, and participate in through the platform.

Event Detail must include:
- Title
- Description
- Date & Time
- Banner Image & Teaser Video
- Location
- Category (Tech, Music, Sports, etc.)
- Capacity

**Note:** The above tables and fields are not exhaustive, students can add more tables and fields as per their requirements

## Core Features

- Admin and User Login functionality

a. A login/register form with fields like username, password etc. for the customer and event organizer and a login form for the admin.
b. The application should have only one admin identified by its role.
c. You can either use **JWT based or Token** based authentication to implement role-based access control.
d. The app must have a suitable model to store and differentiate all types of users.

- Admin dashboard

  a. The admin dashboard should display a list of reported events
  b. The admin dashboard should display pending approvals for Organizer's registration

- Event Organizer dashboard

  c. The dashboard should display events created by them, with attendee list per event
  d. Option to create new events

- Attendees'/customers' dashboard

e. List of upcoming events
f. List of events user has subscribed to

- Ticketing System

  g. Instead of just marking attendance, introduce different types of tickets
  h. Both Free & Paid Tickets
  i. Each event can have multiple ticket types (e.g., Regular, VIP, Early Bird etc.)
  j. Each Ticket type has its own price, seat limit
  k. Event Organizer can configure dynamic pricing & its criterion

- Event Discovery and Advanced Search Features

  a. View a comprehensive list of upcoming events.
  b. Search events by keyword, category, or location.
  c. Apply filters such as date range, price range, and ticket availability.
  d. Narrow down results by category, date, or location.
  e. Browse events easily with pagination for a smooth and organized viewing experience.

- Attendance System

    f. Only Logged-in users (with attendee role) can attend an event.
    g. Users without login can still browse events
    h. Events should not allow attendance if capacity is full
    i. Prevent overbooking

- Reviews and Ratings

    j. Users can leave reviews, only if they attended a particular event.
    k. Reviews can be a mix of text and media files
    l. Reviews tied to both user and event
    m. The organizer dashboard shows feedback for their events

## Optional Features

- Waitlist System: If an event is full, allow users to join a waitlist
- Analytics for Event Organizers: Number of RSVPs per event, most popular categories
- Styling and Aesthetics
- User Experience

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