1. Introduction

- **Project Title: InVITe | Event Management System**

- **Team Members:**
  - Ayush Thakare :
  - Akshat Raj :
  - Nehil Nama :
  - Divyansh Singhal : Full Stack Developer

2. Project Overview

Purpose

InVITe is an automated event management system designed to simplify the process of organizing events, managing registrations, and handling ticket bookings. It offers an intuitive platform for users, event organizers, and developers (admin managers), reducing manual overhead and streamlining communication.

Features

- **Event Creation** – Organizers can create and manage events.

- **Registration Management** – Online attendee registration system.

- **Ticket Booking** – Secure booking with Stripe integration.

- **Email Notifications** – Automated confirmation emails.

- **Attendee Tracking** – Check-in and check-out monitoring.

- **Admin & Developer Roles** – Role-based access for better management.

3. Architecture

Frontend

- Built using Next.js (React-based framework) for server-side rendering and smooth navigation.

- Styled using Tailwind CSS for responsive and fast UI design.

- Interacts with backend via REST APIs.

Backend

- Developed with Node.js and Express.js.

- RESTful API architecture for scalability and modularity.

- Handles authentication, data processing, Stripe integration, and email services.

Database

- Uses MongoDB Atlas for storing:

    - User and admin accounts

    - Event details

    - Registration and booking records

4. Setup Instructions

Prerequisites

- Node.js (v14+)

- MongoDB Atlas account

- Stripe account for payment keys

Installation

1. Clone the Repository

```
git clone https://github.com/d17012002/event-management
```

2. Navigate to Each Folder

```
cd client
npm install

cd ../server
npm install

cd ../developer
npm install
```

3. Set Up Environment Variables

Client-side (client/.env.local):

```
NEXT_PUBLIC_BASE_URL=http://localhost:3000
NEXT_PUBLIC_STRIPE_KEY=your_stripe_public_key
NEXT_PUBLIC_API_URL=http://localhost:5000
```

Server-side (server/.env):

```
MONGO_ATLAS_URI=your_mongodb_connection_string
STRIPE_KEY=your_stripe_secret_key
NODE_MAILER_USER=your_email@example.com
NODE_MAILER_PASS=email_password
JWT_SECRET=your_jwt_secret
```

5. Folder Structure

Client (Next.js Frontend)

```
client/
|
├── pages/              # Routing pages
├── components/         # Reusable UI components
├── styles/             # Tailwind and global CSS
├── utils/              # Helper functions and constants
└── public/             # Static assets
```

Server (Node.js Backend)

```
server/
|
├── models/          # MongoDB models (User, Event, Ticket)
├── routes/          # Express API routes
├── controllers/     # Business logic for routes
├── middleware/      # Auth and error-handling middleware
└── index.js         # Entry point
```

Developer (Admin Creator Panel)

```
developer/
├── pages/
├── components/
└── utils/
```

6. Running the Application

Frontend

```
cd client
npm run dev
```

Backend

```
cd server
nodemon index.js
```

Developer Panel

```
cd developer
npm run dev
```

7. API Documentation

Methods	Endpoints	Description
POST	/api/register	Registers a new user
POST	/api/login	Logs in user/admin
GET	/api/events	Retrieves all events
POST	/api/events	Creates a new event (Admin only)
POST	/api/book	Books a ticket
GET	/api/bookings/:id	Gets booking info
POST	/api/admin/create	Adds a new admin (Developer only)

8. Authentication

- Uses JWT (JSON Web Tokens) for secure session management.

- Access tokens are issued on login and stored on the client.

- Routes protected by middleware (auth.js) to ensure role-based access (User, Admin, Developer).

9. User Interface

- Built with Next.js & Tailwind CSS.

- **Key UI Screens:**

  - Home page with event listings

  - User Dashboard

  - Admin Dashboard

  - Ticket Booking page

  - Developer admin creation panel

Event Manager

<InVITe />

Event Management

"Bringing Your Events to Life: Simplified Registration, Seamless Management, and Easy Ticketing."

Signin   Signup

Filter Options

Keyword

Search by keyword...

Category

Select a category... ⇕

Date Range

14 / 04 / 2025

Price

₹10 – ₹3000

Clear Filters

Events

Kr$na   👥 4,92
Vit Bhopal
15/04/2025   ₹ 1000

Kr$na

Date: 15/04/2025   **Time:** 4:14 PM   **Venue:** Vit Bhopal   **Organizer:** Divyansh
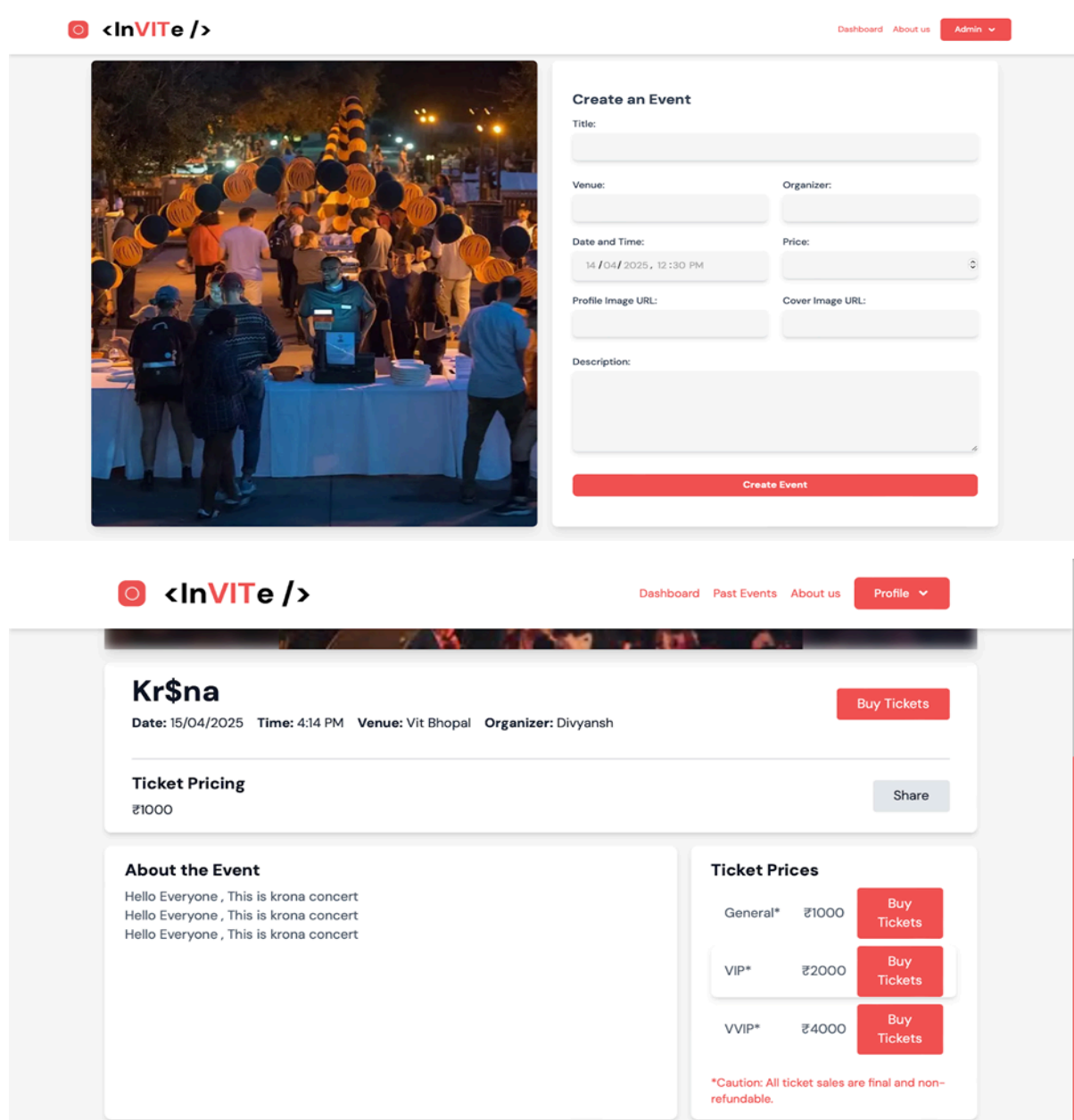
Buy Tickets

Ticket Pricing

₹1000

Share

Pay using stripe

Payment is currently in Test Mode

Use the following test credentials:

FIELD	VALUE
Card Number	4242 4242 4242 4242
Expiry	Any future date (eg: O4/27)
CVC	Any 3 digit number (eg: 345)

Pay With Card

10. Testing

- Manual testing for:

  - Event creation

  - Booking flow

- ○ Payment gateway

- ○ Email verification

- Postman used for backend API testing.

- JWT token validation tested with various user roles.

11. Screenshots or Demo

- 🔗 Live Site: 🎬 Project_Demo.mov

12. Known Issues

- Event filtering could be optimized.

- Email notifications might be delayed under heavy load.

- Developer role currently has open access – needs restriction and enhanced security.

13. Future Enhancements

- Role-based access control panel for product managers.

- Event analytics and insights for admins.

- Push notifications for last-minute updates.

- Mobile-responsive PWA version.

- QR code generation for ticket verification.

- Enhanced event categorization and filtering system.