

Project Report: ScreenZone

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1. Introduction

ScreenZone is a comprehensive web-based cinema management and ticket booking application developed using the **Laravel** PHP framework. The project aims to streamline the operations of a movie theater by providing a digital platform for managing movie listings, snacks, and user interactions. It bridges the gap between cinema administrators and customers, offering a seamless interface for both parties.

The application is built with a focus on a clean user interface, ease of use, and robust backend functionality, utilizing modern web technologies including **AJAX** for dynamic interactions and **Bootstrap/Tailwind** for responsive design.

2. Features

The ScreenZone project currently includes the following key features:

A. Authentication & Authorization

- **Secure Login & Registration:** Users can create accounts and log in securely.
- **Role-Based Access Control (RBAC):** Distinct access levels for **Administrators** and **Regular Users**. Admin routes are protected to prevent unauthorized access.

B. Admin Panel

- **Dashboard:** A central hub for administrators to oversee operations.
- **Movie Management (CRUD):**
 - **Create:** Add new movies with titles, descriptions, and poster images.
 - **Read:** View a list of all current movies.
 - **Update:** Edit existing movie details and replace images.
 - **Delete:** Remove movies from the listing.
- **Snack Management:** Full CRUD capabilities for managing cinema snacks and pricing.

C. Advanced Functionalities

- **Dynamic Search Bar:**
 - Implemented using **AJAX** to provide real-time results without page reloads.
 - Filters movies by **Title** and **Description**.
 - Displays matching results in an interactive, styled dropdown with movie thumbnails.
- **Image Upload System:**
 - Allows administrators to upload movie posters.
 - Includes client-side **Image Preview** to see the selected image before uploading.
 - Implements **Validation** for file type (images only) and size limits to ensure performance.

D. User Interface

- **“Now Showing” Page:** Displays a grid of currently available movies.
- **Responsive Design:** Optimized for viewing on various screen sizes.
- **Dark Theme:** A modern, cinema-themed aesthetic.

3. Conclusion

The ScreenZone project has successfully established a robust foundation for a cinema management system. Key technical challenges, such as implementing asynchronous search and handling file uploads with validation, have been addressed effectively. The application is now capable of handling the core workflows of listing movies and snacks, providing a user-friendly experience for administrators to manage content and for users to discover movies. The codebase has been optimized by removing unused files and ensuring clean routing separation between API and Web interfaces.

4. Future Features

To further enhance the application and provide a complete commercial solution, the following features are proposed for future development:

1. **Visual Seat Selection:** An interactive map allowing users to choose specific seats for their showtime.
2. **Online Payment Gateway:** Integration with providers like Stripe or PayPal to accept credit card payments for tickets and snacks.
3. **Showtime Scheduling:** A more complex scheduling system to manage multiple screenings per movie across different cinema halls.
4. **User Reviews & Ratings:** A community feature allowing users to rate and review movies they have watched.
5. **Email Notifications:** Automated emails for booking confirmations, password resets, and promotional offers.
6. **Ticket Generation:** Generation of QR code-based digital tickets that can be scanned at the entrance.