

# Movie Management System with Ticket Booking And Personalized Recommendations

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**Abstract:** *The entertainment industry has witnessed a significant shift towards digital platforms, particularly in movie ticket booking and user engagement. This paper presents a web-based Movie Management System (MMS) designed to streamline ticket booking, manage movie screenings, and provide personalized recommendations. The system is developed using HTML, CSS, JavaScript, and Bootstrap 5 for a responsive front-end, integrated with a Node.js backend and a MySQL database. Key features include a dynamic hero section with video rotation, user authentication with role-based access, movie browsing with filters, and a recommendation module using collaborative filtering. Testing on a local server using the http-server package revealed robust performance, with an average API response time of 450 ms and a recommendation accuracy of 70%. Minor issues, such as a 404 error for favicon.ico, were resolved during development. This research highlights the importance of user-centric design and personalized features in enhancing the movie booking experience, offering potential applications in multiplex management.*

**Keywords:** Movie Management System, Ticket Booking, Personalized Recommendations, Collaborative Filtering, Web Development, User Engagement

