

SHOWBOOK: AN ONLINE MOVIE TICKET BOOKING SOLUTION

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ABSTRACT

The objective of the project is to enable users to book cinema tickets online. The Ticket Reservation System (Show Book) is an internet-based application accessible throughout the net by anyone with a net connection. This application enables users to reserve tickets. A cinema hall provides an app where any internet user can access this online ticket reservation system. Users need to log in to the system and use a credit card for ticket booking. Tickets can either be collected at the counter or mailed to their respective email ids. Watching movies with family and friends in theaters is one of the best forms of entertainment after a hectic schedule. However, the excitement is lost while standing in long queues for hour or two to book tickets. The website provides complete information regarding currently running movies on all screens, with details of show timings and available seats. Ticket reservations are made using credit cards and can be canceled if needed. Our online ticket reservation system is one of the best opportunities for those who cannot afford enough time to stand in long queues for ticket reservation. People can book tickets online at any time of the day or night.

KEYWORD: User-Centered Design, Technology Acceptance Model, DFD

I. INTRODUCTION

The development of technologies, increasing digitalization, and increasing social networking have made information sharing on the internet quite easy. Consequently, the online system has become very popular in the last 6-10 years. Asia Pacific witnessed the largest online purchase. People now use online systems more frequently than offline ones. One such trending system is the movie booking system, which enables users to browse and book movie tickets online. With the increase in technology, there have been lots of advancements in online booking systems. Users can now see the seating plan and book refreshments online. Some systems even allow users to confirm their tickets and pay while entering the hall.

Technology has made digitalization one of the most amazing outcomes, giving easy accessibility to all available resources. Online systems have eliminated the need to wait in queues at movie theaters. Additionally, users can easily read about movies online to get a clear picture of them [1]. Online payment has also increased e-banking, which is helpful for the sound development of the country's economy.

II. LITERATURE REVIEW

Online movie ticket booking apps have revolutionized the way people buy tickets for movies. These platforms offer users convenience, flexibility and often unique offers, making the process of booking movie tickets smooth and efficient. As these programs continue to grow in popularity, researchers have

delved into various aspects of their functionality, user experience, and impact on the film industry. The purpose of this literature review is to examine the existing research and research findings related to online movie ticket booking applications with a focus on understanding their features, user satisfaction, challenges and future prospects.

Researchers have extensively studied the features of online movie ticket applications and functions. Researchers such as Li et al. (2019) [2] and Singh and Jain (2020) [3] emphasized the importance of user-friendly interfaces, fast ticket booking processes, secure payment gateways and personalized recommendations for improving user experience and satisfaction. These features not only streamline the ticket booking process, but also promote customer retention and loyalty.

Understanding user satisfaction and preferences is essential to the success of booking applications. of online movie tickets. Research by Gupta and Arora (2018) [4] shows that factors such as ticket availability, seat options, price transparency and post-purchase services have a significant impact on user satisfaction. In addition, studies have also investigated demographic differences in user preferences. Findings show that younger audiences value mobile compatibility and social media more than older demographics (Wang et al., 2021) [5].

Despite widespread adoption, online movie ticketing applications face a number of challenges and limitations. . . Sharma et al. (2020) [6] identified problems such as technical failures, server downtime, payment failures and fraudulent activities as the most common problems experienced by users. In addition, data protection and data security issues have become critical challenges due to increasing cyber threats and data breaches (Chen et al., 2021) [7]. Addressing these challenges is important to building trust and maintaining the credibility of online ticketing platforms.

Online movie ticketing programs have had a significant impact on the movie industry and influenced consumer behavior. agency trends and marketing strategies. Chen and Chen (2019) [8] and Kim et al. (2020) [9] examined the relationship between online ticket sales and movie revenues, highlighting the role of digital platforms in ticket sales and promoting box office success. In addition, researchers have investigated the effectiveness of targeted campaigns, loyalty programs and data analytics to maximize the revenue potential of online ticket applications.

III. SYSTEM REQUIREMENTS

A. Technology Used

VSCode, React native, Sanity.io, Firebase, Razorpay.

a) React native

React Native is a powerful and flexible framework that enables developers to build cross-platform mobile applications using JavaScript and React. Its ability to deliver near-native performance, combined with the efficiency of a single codebase for multiple platforms, makes it an attractive choice for many development teams. The framework's rich ecosystem, strong community support, and continuous improvements ensure that it remains a relevant and valuable tool for mobile application development. While there are challenges associated with using React Native, such as performance overhead and the need to stay current with updates, the benefits it offers in terms of development speed, flexibility, and code reusability make it a compelling option for building modern mobile applications.

b) Sanity.io

Sanity.io is a highly flexible, scalable, and developer-friendly content management system that offers a modern approach to managing structured content. Its headless architecture, real-time collaboration features, and extensive customization options make it an ideal choice for a wide range of applications, from simple websites to complex, high-traffic applications. With its robust API, powerful query language, and seamless integration with other tools and services, Sanity.io provides a comprehensive solution for modern content management needs. Its emphasis on performance, security, and developer experience ensures that it meets the demands of both small teams and large enterprises, making it a versatile and reliable choice for content management in the digital age.

IV. MARKET OVERVIEW

Online movie ticket booking has become increasingly popular in India over the past few years. With the growth of internet penetration and the rise of digital technologies, more and more people are opting

for the convenience of booking movie tickets online.

Overall, the Indian online movie ticket booking market is expected to continue to grow in the coming years, driven by factors such as increasing internet penetration, rising disposable incomes, and the continued popularity of movies in India.

Some of the major players in the Indian online movie ticket booking market include BookMyShow, Paytm, TicketNew, and PVR Cinemas. BookMyShow is currently the market leader, with a significant market share and a presence in over 650 towns and cities in India [10].

The Indian online movie ticket booking market is highly competitive, with players constantly innovating and introducing new features to attract customers. For example, many online ticket booking platforms offer cashback and other discounts to encourage users to book tickets through their platform. In addition, the COVID-19 pandemic has accelerated the shift towards online movie ticket booking in India, as people have become more hesitant to visit crowded places like movie theaters. As a result, online movie ticket bookings have surged in recent months, with many people choosing to watch movies from the comfort and safety of their homes.

The following review encompasses key studies and findings relevant to online movie ticket booking applications:

a) User-centred Design Principles:

Research in user-centered design principles emphasizes the importance of aligning application features and interfaces with user needs and expectations. Studies by Norman and Nielsen highlight the significance of intuitive navigation, clear information presentation, and error prevention mechanisms in enhancing user satisfaction and usability. ShowBook's adherence to these principles can be evaluated in terms of its interface design, task flows, and support for user decision-making processes.

b) Technology Acceptance Model (TAM):

The TAM framework, proposed by Davis, offers insights into users' perceptions and attitudes toward technology adoption. Prior studies applying TAM to online ticket booking applications have identified perceived usefulness, ease of use, and perceived risk as key determinants of user acceptance. Show Book's ability to address these factors, such as providing seamless booking experiences, may influence its adoption and retention rates among users.

c) Comparative Analysis of Ticket Booking Platforms:

Comparative studies evaluating different online ticket booking platforms have shed light on their strengths, weaknesses, and user preferences. Research by Sharma et al. and Gupta et al. has compared features, pricing, reliability, and user satisfaction across platforms like BookMyShow, Paytm Movies, and others. ShowBook's competitive positioning and unique value proposition can be assessed in relation to these findings, identifying opportunities for differentiation and improvement.

d) Usability Testing and User Feedback:

Usability testing and user feedback studies provide valuable insights into users' interactions and experiences with online ticket booking applications. Research by Nielsen Norman Group and UXPin has emphasized the importance of iterative design, user testing, and feedback incorporation in optimizing application usability and satisfaction. ShowBook's approach to gathering and integrating user feedback, as well as its responsiveness to usability issues, can be evaluated in light of these best practices.

e) Emerging Trends and Innovations:

With advancements in technology and changing user preferences, the online ticket booking landscape continues to evolve. Studies exploring emerging trends such as mobile ticketing, personalized recommendations, and integration with social media platforms offer valuable insights into future directions for application development. ShowBook's alignment with these trends, as well as its ability to anticipate and adapt to evolving user needs, can inform its long-term viability and competitiveness in the market.

V. PROPOSED METHODOLOGY

A. MODULES

a) Registration Module

The user has to register himself/herself in Showbook before using the application with the help of some

credentials like Full name, Lastname, Password, Gmail id etc.

b) Login module

The customer will use this module. And will get access to the system only after the login and based on the correct username and password they will get options in the system.

c) Customer module

The customer will use this module, as soon as he/she registered himself as customer and through this module, the users can search for a movie, can book a movie and can pay for them online.

d) Movie module

This module will give information about the movies as the which of the movie are screening, and about its show timing and its screen whether single or the multiplex or it is 2D or 3D show. This system will provide information that which movie is running on which hall(screen) and how many seats are available in that hall[4].

e) Booking module

In This module movie ticket is booked for a customer. This module contains all the information related to booking. As soon as the customer request is complete, all booking details displayed to him/her.

f) Payment Gateway

Once a user decides which movie he/she wants to watch and choose the ticket as per his/her choices the user shall move to payment gateway so that the ticket reservation can be confirmed.

B. DATA FLOW

To show the flow of information and data DFD is used. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination.

a) DFD LEVEL ZERO

A 0-level data flow diagram (DFD) represents the highest level of abstraction in modelling the data flow of a system. It describes the entire system as a single process, often called the core process or system process, and the external entities that interact with it. At this level, the diagram captures the main inputs and outputs of the system, emphasizing the flow of information between the system and peripherals.

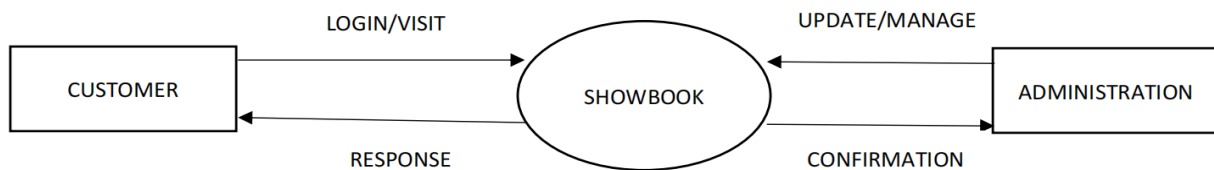


Figure 1 DFD LEVEL ZERO

A Level 0 DFD is the basis for creating more detailed DFDs at lower levels, providing a clear picture of system boundaries and interactions.

b) DFD LEVEL ONE

A Level 1 Data Flow Diagram (DFD) provides a broad overview of the system's processes, data stores, and external entities. It describes the main processes of the system, the external entities interacting with it and the data repositories used.

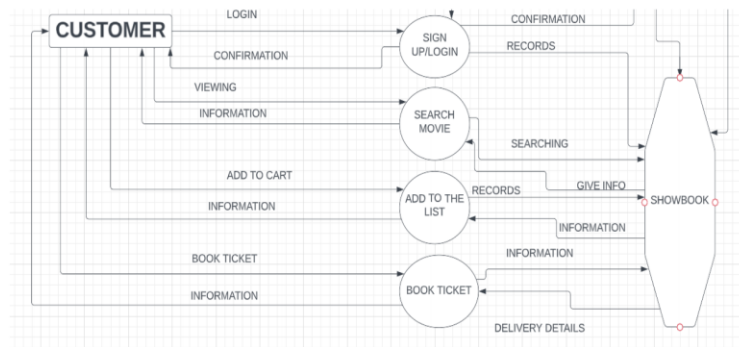


Figure 2 DFD LEVEL ONE

Level 1 DFD helps to understand the overall architecture and data flow of a system without going into complex details.

VI. IMPLEMENTATION METHODOLOGY

The methods used to evaluate the user experience and performance of ShowBook for online movie ticket booking include a structured and iterative approach. This method includes several key steps to comprehensively evaluate an application's functionality, usability, performance, and satisfaction. The research implementation methodology is outlined below:

a) Defining Evaluation Criteria

Define evaluation criteria based on relevant theoretical frameworks, industry best practices and user expectations. Criteria may include measures of usability, functionality, performance, reliability, security and user satisfaction.

b) Preparation and Installation

You will have access to the ShowBook application and any necessary test environments or resources for evaluation.

c) Usability testing and user feedback

Conduct usability testing sessions with representative users to evaluate the interface design, navigation structure, and overall usability of the ShowBook app.

d) Performance Evaluation

Evaluate the performance of the ShowBook application in terms of responsiveness, load time, event processing speed and reliability under various network conditions.

e) Comparative Analysis

Compare the ShowBook app against competing online movie ticket booking platforms, considering factors such as features, pricing, user experience and customer support.

f) Iterative Design and Optimization

Based on the results of usability testing, performance evaluation and benchmarking, iterate the design and functionality of the ShowBook application to address identified weaknesses and capitalize on strengths.

g) Documentation and Reporting

Document the results, insights and recommendations of the ShowBook evaluation as a comprehensive research paper.

Following this that. implementation methodology, the Research aims to provide valuable insights into the user experience of the ShowBook application and the effectiveness of online movie ticket booking, contributing to the ongoing debate on digital planning and service delivery in the entertainment industry.

VII. RESULTS

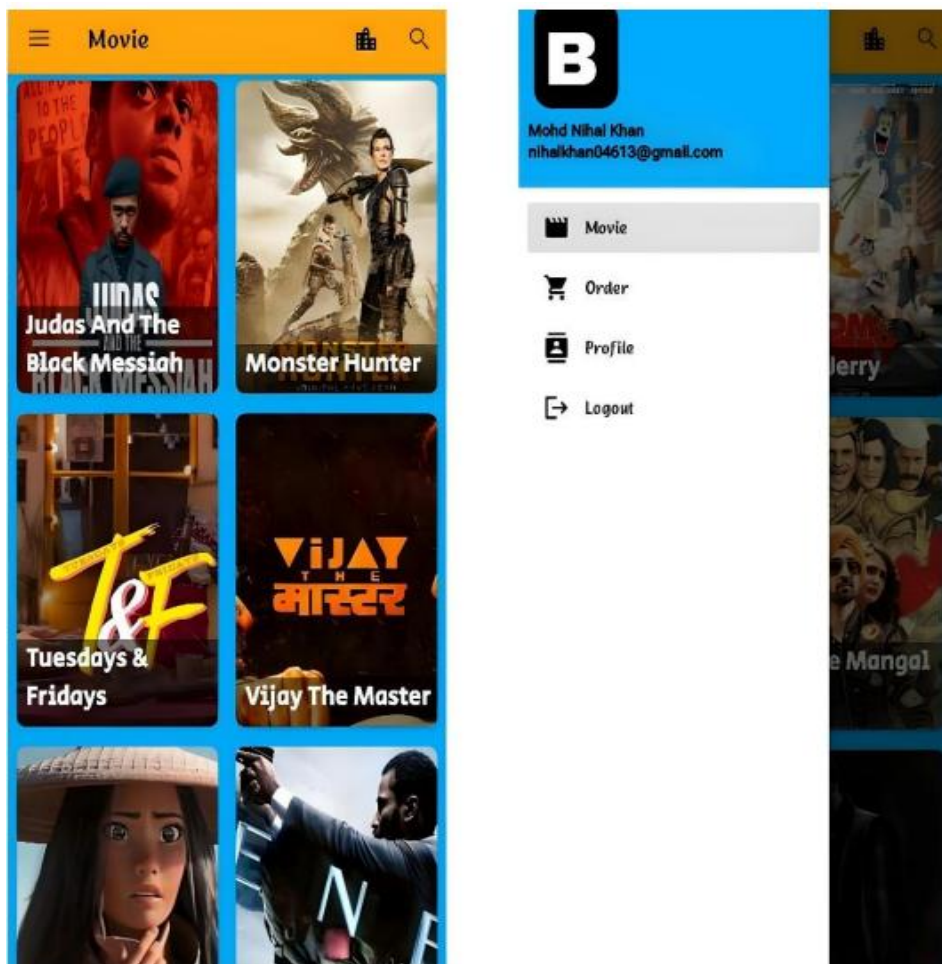


Figure 3 HOME PAGE

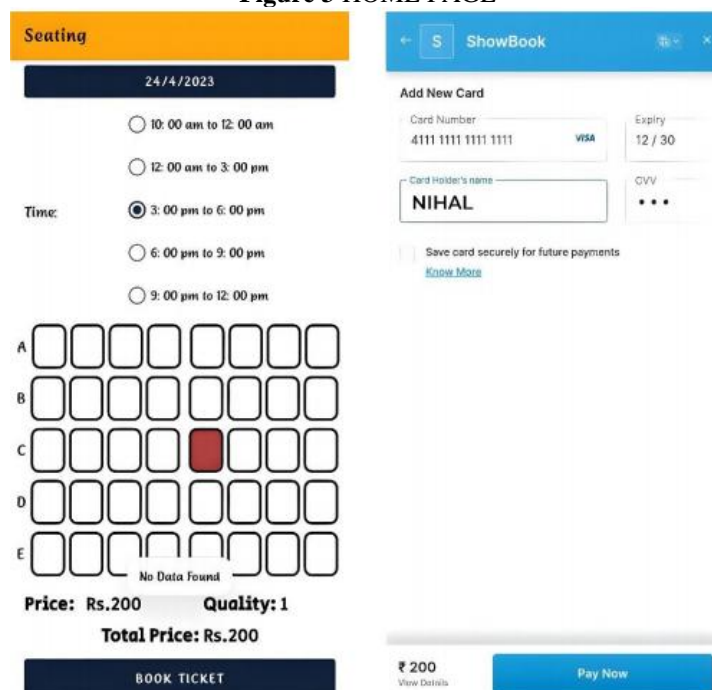


Figure 4 PAYMENT PAGE

VIII. ADVANTAGES

There are several advantages to booking movie tickets online:

a) Convenience

One of the biggest advantages of online movie ticket booking is the convenience it provides. You can book your tickets from anywhere and at any time, without having to stand in long queues at the ticket counter.

b) Choice of Seats

When booking movie tickets online, you can choose your preferred seats from the available seating options. This can help you get the best view of the movie and ensure a comfortable experience.

c) Easy Payment Options

Online movie ticket booking platforms offer multiple payment options, including credit/debit cards, net banking, and mobile wallets. This makes it easy for customers to pay for their tickets without carrying cash.

d) Timesaving

With online movie ticket booking, you can save a lot of time as you don't have to travel to the cinema to book your tickets. You can also avoid the hassle of waiting in long queues at the cinema.

e) Booking History

Online movie ticket booking platforms also provide a booking history, which can be helpful for keeping track of your past movie bookings.

Overall, online movie ticket booking provides a convenient, time-saving, and hassle-free way to book movie tickets, with the added advantage of discounts and offers.

IX. FUTURE SCOPE

a) Personalization

Movie ticket booking apps can leverage artificial intelligence and machine learning to provide personalized movie recommendations based on a user's viewing history and preferences.

b) Social Integration

Social media integration allows users to share their movie-going experience with friends, giving them the ability to coordinate movie plans with friends and family, view what others are watching, and discuss movies in real-time.

c) Augmented Reality

Augmented reality technology can allow users to see movie trailers, posters, and promotional material come to life in 3D, which could enhance the movie-going experience and provide a unique marketing opportunity for movie studios.

d) Virtual Reality

As virtual reality technology becomes more advanced, online movie ticket booking apps can provide virtual movie theaters where users can watch movies in a fully immersive environment.

e) In-app purchases

In-app purchases can offer users the ability to order food and drinks from the theater, which can increase revenue for both the app and the theater.

Overall, the future of online movie ticket booking app looks bright, as technology continues to improve and consumers seek more convenient and personalized ways to enjoy movies.

X. CONCLUSION

The online movie ticket booking app has become an essential part of the movie-going experience for many people. It provides users with a convenient and hassle-free way to book their movie tickets from anywhere, at any time. The app has made the process of booking movie tickets more efficient, with features such as real-time seat availability, multiple payment options, and the ability to choose preferred seats.

Overall, the online movie ticket booking app has revolutionized the movie ticket booking industry, providing a seamless and user-friendly experience for customers. It has also enabled movie theatres to streamline their ticketing process and reduce the workload on staff [11].

As the app continues to evolve, we can expect even more features to be added, such as personalized recommendations based on past viewing history, augmented reality seat selection, and even more

seamless payment options.

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