Veer Narmad South Gujarat University, Surat.

Department of Information and Communication Technology.

M.Sc. (Information Technology) Programme

Project Report

9th Semester

M.Sc. (Information Technology) 5 Year Integrated Course

Year 2024 – 2025

Book Your Show

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Certificate

This is to certify that Mr/Ms Nishi Yageshkumar Sharma with exam Seat Number 160 and Registration No: E201100018000610133 has worked on His/Her project work entitled as BookYourShow at Department of I.C.T as a partial fulfilment of Msc.(Information Technology) -9^{th} Semester, during the academic year 2024-2025 .

Date: 13-12-2024

Place: Dept. of ICT, VNSGU, Surat.

Internal Project Guide
M.Sc.(I.T.) 9th Semester
Department of I.C.T.
Veer Narmad South Gujarat University,
Surat

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1. Introduction

1.1 Project Profile

Project Topic: BookYourShow

<u>Project Definition:</u> The BookYourShow system is an online ticket booking platform designed to simplify the purchase of event and show tickets. The system offers features like user registration, browsing event listings, secure payment integration. It includes an admin interface for managing event details, ticket availability, and pricing. Built with a scalable architecture, it ensures high performance during peak traffic, supports real-time updates, and employs robust database management for user and booking records. The system also integrates notification services via email to confirm bookings.

Project Duration: 3 Months

2. Proposed System

2.1 Scope

The BookYourShow system aims to revolutionize the ticket-booking experience by offering a user-friendly platform accessible via web applications. It caters to diverse users, including individual customers and businesses hosting events. The system supports multiple languages, currencies, and payment methods, making it suitable for a global audience. Its scope includes real-time seat availability, event discovery, secure bookings, and seamless integration with social media for promotions. Additionally, it provides analytics and insights for event organizers to track performance. Future enhancements may include personalized recommendations, loyalty programs, and integration with smart devices for an enriched user experience.

2.2 Objectives

- <u>Simplify Ticket Booking:</u> Provide a user-friendly platform for customers to book tickets for events and shows quickly and conveniently.
- Enhance Accessibility: Make the platform available across web and mobile devices, ensuring global reach with multi-language and multi-currency support.
- <u>Real-Time Updates:</u> Enable real-time seat availability, booking confirmations, and event information updates.
- <u>Secure Transactions:</u> Ensure secure payment gateways with multiple payment options to safeguard user data and transactions.
- <u>Support Event Organizers</u>: Offer tools for event organizers to manage ticket sales, monitor attendance, and analyse event performance.
- <u>Personalized Experience</u>: Provide tailored recommendations based on user preferences and past booking history.
- <u>Seamless Notifications:</u> Integrate SMS and email services to send booking confirmations, reminders, and updates to users.

2.3 Advantages

- Convenience and Accessibility: Users can book tickets from the comfort of their homes or on the go, anytime, using web or mobile platforms.
- <u>Diverse Offerings:</u> Supports a wide range of events, including concerts, sports, and live shows, catering to varied interests.
- <u>Real-Time Integration</u>: Provides instant updates on seat availability, pricing, and cancellations, ensuring users have accurate information.
- <u>Secure Payment System:</u> Offers multiple payment options, including wallets and UPI, with robust encryption to safeguard transactions.
- <u>Marketing Opportunities</u>: Helps event organizers promote their events through integrated social media sharing and email campaigns.
- <u>User Engagement:</u> Personalized recommendations, loyalty programs, and push notifications keep users engaged and encourage repeat bookings.
- <u>Convenience and Accessibility: Users</u> can effortlessly browse, book, and manage tickets from anywhere using web or mobile apps.
- <u>Real-Time Updates:</u> Provides instant, accurate information on seat availability and event details, enhancing user experience.

2.4 Limitations

- <u>Internet Dependency:</u> Full functionality requires an internet connection, limiting access in areas with unreliable networks.
- <u>Scalability Issues:</u> Heavy traffic during major events can cause system slowdowns or crashes if not properly scaled.
- <u>Service Charges:</u> Additional booking fees may discourage users, especially in competitive markets.
- <u>Data Privacy Concerns:</u> Handling sensitive user data requires stringent compliance with data protection regulations, which can be complex.
- Regional Barriers: Limited language or payment method support in some areas may restrict accessibility for local users.
- <u>Competition:</u> Faces stiff competition from other ticketing platforms, requiring constant innovation to retain market share.
- <u>Internet Dependency:</u> Full functionality is dependent on a stable internet connection, limiting access in areas with poor connectivity.
- <u>Scalability Issues:</u> High traffic during popular events can overwhelm the system, causing delays or performance issues.

3. Environment Specification

3.1 Hardware and Software Requirements

Hardware Requirements:

Microprocessor	Intel Core 11 th Generation
Memory	16GB
Hard disk	100MB Minimum

Software Requirements:

Operating System	Microsoft Windows
Web Browser	Google Chrome, Edge

3.2 Development Description

The development of the BookYourShow System begins with requirements gathering to understand the needs of users, event organizers, and administrators. The design phase focuses on creating an intuitive and responsive interface for both web and mobile platforms, ensuring users can easily browse and book tickets. The back-end system is designed to handle user authentication, event management, and secure payment processing. During the development phase, front-end and back-end coding is carried out using ASP.NET and MYSQL. Rigorous testing is performed, including functional, security, and load testing, to address potential performance issues during high traffic. After deployment, training is provided for event organizers and administrators to use the platform efficiently. Ongoing maintenance and updates are performed to improve system performance, add new features, and maintain security post-launch

4. System Planning

4.1 Feasibility Study

- <u>Technical Feasibility:</u> Assess the technical capabilities required to build and maintain the BookYourShow platform. This includes evaluating the infrastructure needed to support high traffic volumes, integrating payment gateways, and ensuring system security. Review the availability of technologies like ASP.NET for backend development and MSSQL for database management, along with expertise needed to ensure smooth system performance and reliability.
- <u>Financial Feasibility</u>: Determine the initial investment required for software development, cloud hosting infrastructure, and third-party integrations. Calculate expected revenue streams, such as service fees from ticket bookings, partnerships with event organizers, and potential premium features for users.
- Operational Feasibility: Analyse how the BookYourShow system will operate, including managing event listings, ticket inventory, and user support. Consider the resources needed to maintain the platform, including customer service teams, admin staff, and event organizer support.
- <u>Risk Assessment:</u> Identify potential risks such as competition from other ticketing platforms, changes in consumer behaviour, technical issues like system downtime during peak periods, and external factors such as changes in event regulations or market conditions.

4.2 Software Engineering Model

For an online food ordering system, the Agile software development model is often preferred due to its iterative and flexible nature, allowing for frequent updates and adaptations to meet evolving customer needs and market trends. Within Agile, specific methodologies like Scrum might be utilized, depending on the project requirements and team preferences.

Agile methodology enables close collaboration between development teams and stakeholders, facilitating rapid development cycles known as sprints. This iterative approach allows for early and continuous delivery of valuable software increments, ensuring that the online ordering system can be quickly developed, tested, and refined based on user feedback.

Additionally, Agile methodologies promote cross-functional teams, where developers, designers, product managers, and other stakeholders work closely together to deliver high-quality software efficiently. This collaborative approach is well-suited for complex projects like online food ordering systems, where multiple functionalities such as order processing and payment integration.

Overall, the Agile software development model offers the flexibility, adaptability, and collaborative framework necessary for the successful development and deployment of an online food ordering system.

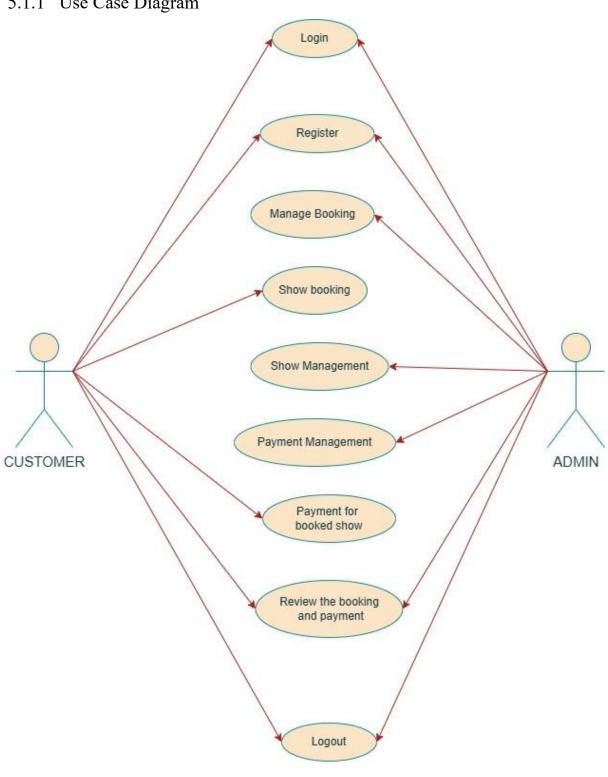
4.3 Risk Analysis

- <u>Competition Risk:</u> The online ticketing market is highly competitive, with established players like Ticketmaster and Eventbrite. New entrants may face challenges in gaining market share, and existing competitors may enhance their offerings, potentially reducing BookYourShow's visibility and user base.
- <u>Payment and Security Risks:</u> Handling sensitive payment and personal data creates security challenges. Breaches or data theft could harm the platform's reputation and result in legal and financial penalties.
- System Downtime and Performance Issues: The platform could experience technical difficulties during peak usage times, such as major events or movie releases, leading to downtime or degraded user experience. Ensuring robust infrastructure, cloud scalability, and stress testing is vital to minimize these risks.
- Market Demand Risk: Changes in consumer behaviour, such as a shift to in-person event purchases or a preference for other forms of entertainment, could impact demand for online ticketing services. Market research and flexibility in offerings are essential to adapt to changing trends.
- <u>Economic Factors:</u> External economic factors, such as recessions or increased event cancellation rates due to global crises (e.g., pandemics), may reduce consumer spending on entertainment, affecting ticket sales and overall revenue.

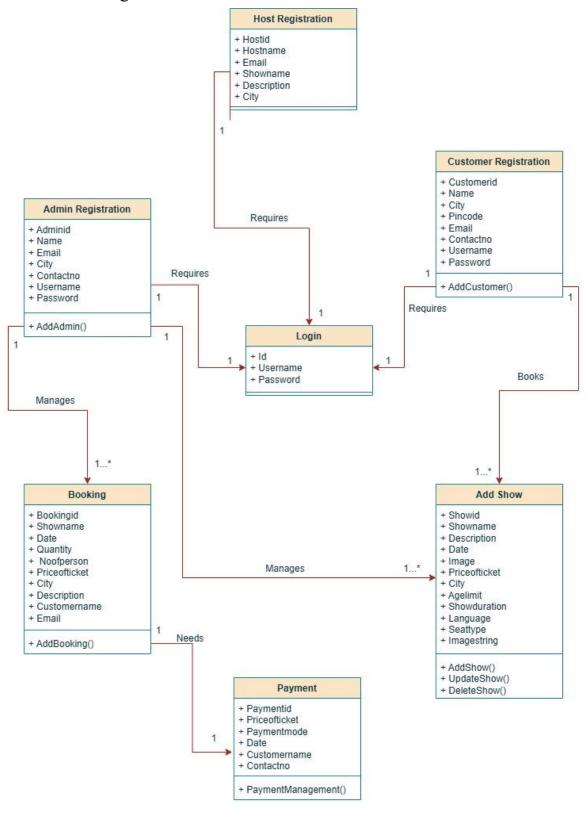
5. System Analysis

5.1 UML Diagrams.

5.1.1 Use Case Diagram

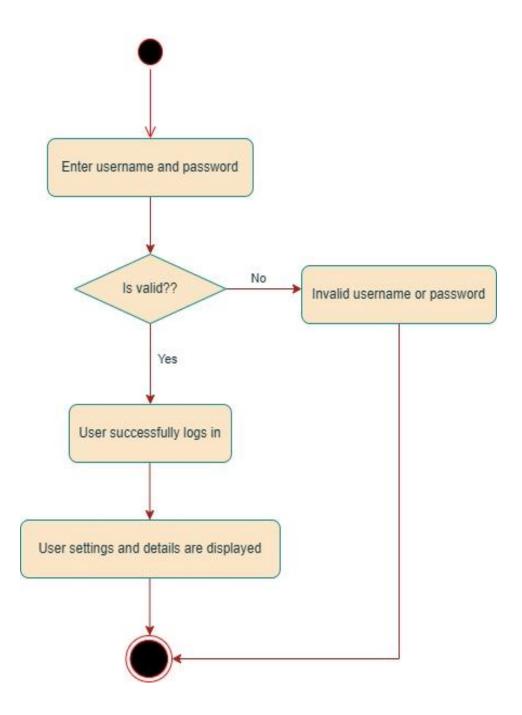


5.1.2 Class Diagram

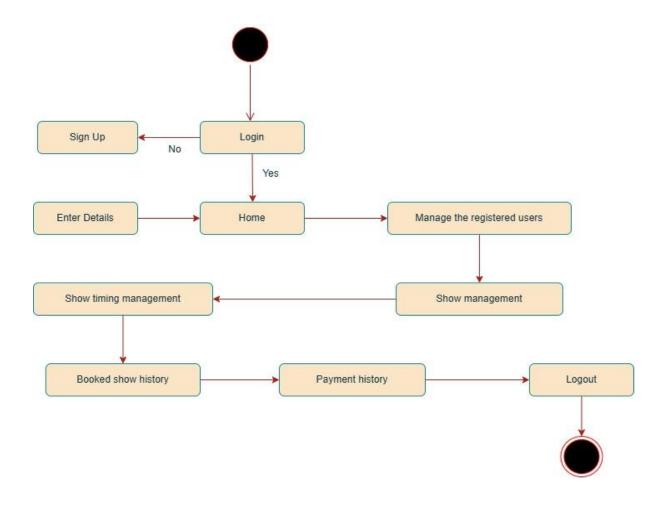


5.1.3 Activity Diagram

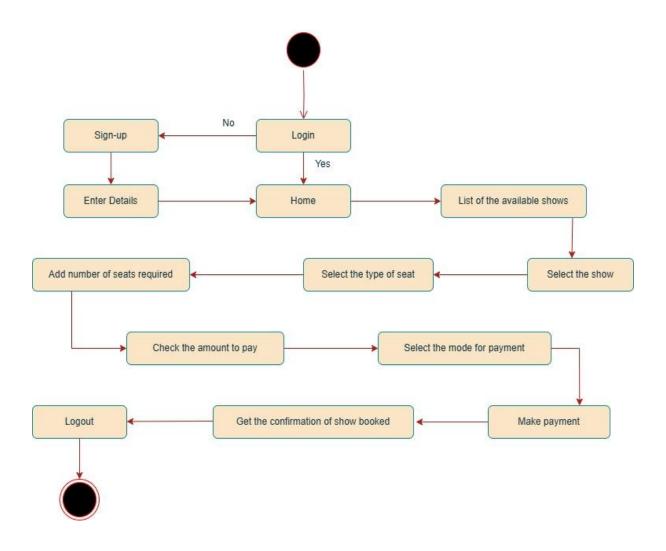
5.1.3(a) Login



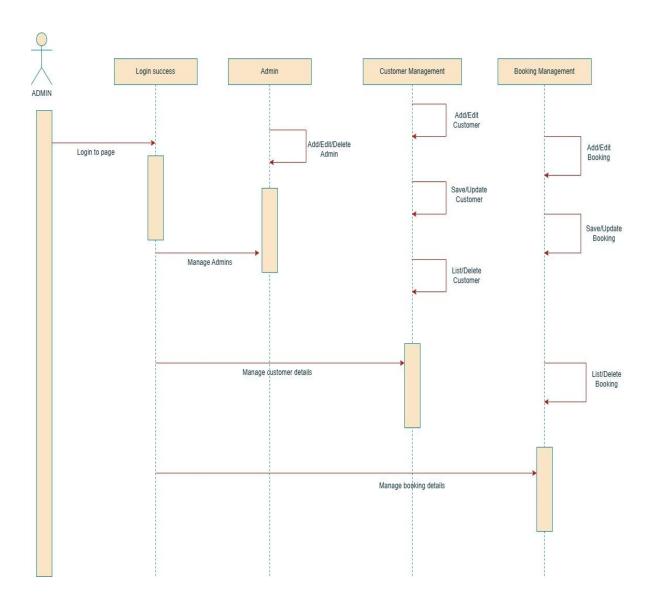
5.1.3(b) Admin



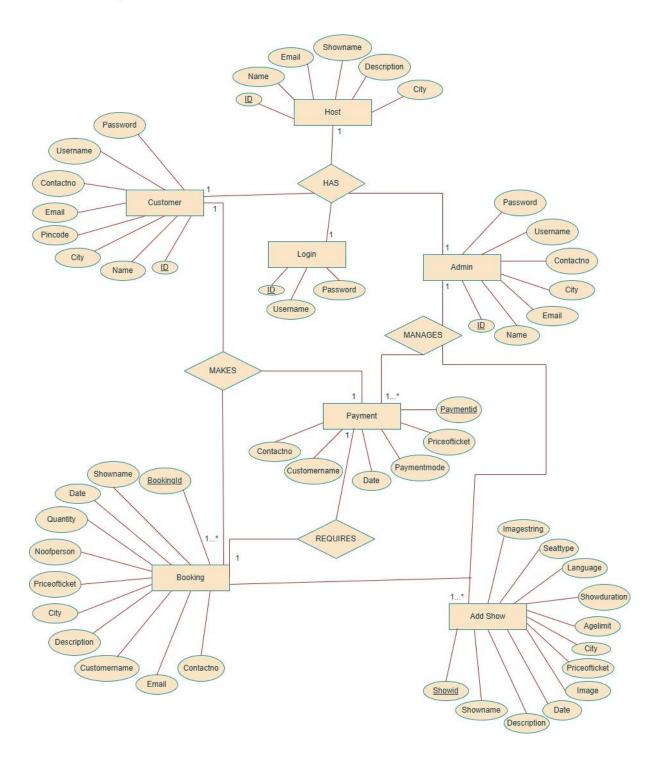
5.1.3(c) Customer



5.1.4 Sequence Diagram



5.2 ER Diagram



6. Designing

6.1 Database Designing

Customer Login Table

	Column Name	Data Type	Allow Nulls
₽¥	Id	int	
	Customerid	int	$\overline{\checkmark}$
	Username	varchar(50)	$\overline{\mathbf{v}}$
	Password	varchar(50)	$\overline{\checkmark}$

Customer Registration Table

	Column Name	Data Type	Allow Nulls
₽Ÿ	Customerid	int	
	Name	varchar(50)	lacksquare
	City	varchar(50)	lacksquare
	Pincode	varchar(50)	$\overline{\smile}$
	Email	varchar(50)	$\overline{\smile}$
	Contactno	varchar(50)	$\overline{\smile}$
	Username	varchar(50)	lacksquare
	Password	varchar(50)	$\overline{\mathbf{v}}$

Admin Login Table

	Column Name	Data Type	Allow Nulls
▶ 8	ld	int	
	Adminid	int	$\overline{\smile}$
	Username	varchar(50)	$\overline{\checkmark}$
	Password	varchar(50)	$\overline{\smile}$

Admin Registration Table

	Column Name	Data Type	Allow Nulls
₽¥	Adminid	int	
	Name	varchar(50)	$\overline{\mathbf{v}}$
	Email	varchar(50)	
	City	varchar(50)	$\overline{\mathbf{v}}$
	Contactno	varchar(50)	$\overline{\mathbf{v}}$
	Username	varchar(50)	$\overline{\mathbf{v}}$
	Password	varchar(50)	$\overline{\mathbf{v}}$

Booking Table

	Column Name	Data Type	Allow Nulls
₽₽	Bookingid	int	
	Showid	int	
	Showname	varchar(50)	
	Date	datetime	$\overline{\mathbf{C}}$
	Quantity	int	
	Noofperson	int	lacksquare
	Priceofticket	int	
	City	varchar(50)	
	Description	varchar(50)	
	Customerid	int	
	Name	varchar(50)	
	Email	varchar(50)	lacksquare
	Contactno	varchar(50)	lacksquare

Add Show Table

	Column Name	Data Type	Allow Nulls
₽¥	Showid	int	
	Showname	varchar(50)	$\overline{\mathbf{v}}$
	Description	varchar(50)	
	Date	date	$\overline{\mathbf{v}}$
	Image	varbinary(MAX)	$\overline{\mathbf{v}}$
	Priceofticket	int	
	City	varchar(50)	$\overline{\mathbf{v}}$
	Agelimit	varchar(50)	$\overline{\mathbf{v}}$
	Showduration	varchar(50)	$\overline{\mathbf{v}}$
	Language	varchar(50)	
	Seattype	varchar(50)	$\overline{\mathbf{v}}$
	Imagestring	varchar(MAX)	$\overline{\mathbf{v}}$

Host Login Table

	Column Name	Data Type	Allow Nulls
▶ 8	ld	int	
	Hostid	int	$\overline{\smile}$
	Username	varchar(50)	$\overline{\smile}$
	Password	varchar(50)	$\overline{\smile}$

<u>Host Registration Table</u>

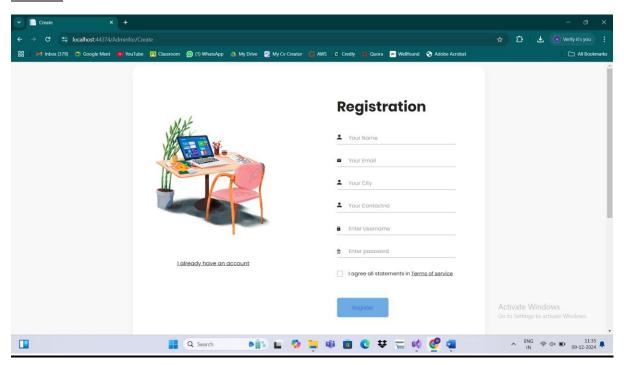
	Column Name	Data Type	Allow Nulls
▶ 8	Hostid	int	
	Hostname	varchar(50)	$\overline{\mathbf{Z}}$
	Email	varchar(50)	$\overline{\mathbf{Z}}$
	Showname	varchar(50)	$\overline{\mathbf{Z}}$
	Description	varchar(50)	$\overline{\mathbf{Z}}$
	City	varchar(50)	$\overline{\mathbf{Z}}$

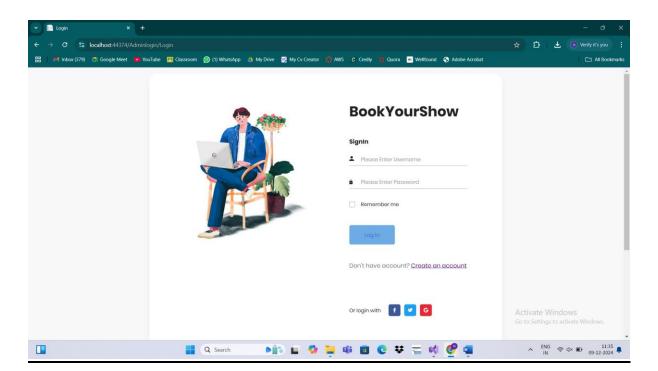
Payment Table

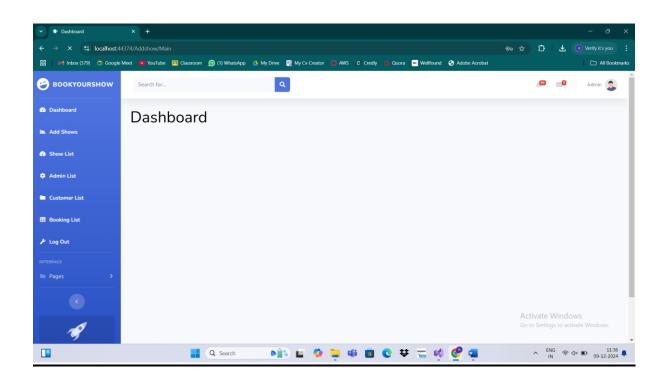
	Column Name	Data Type	Allow Nulls
₽¥	Paymentid	int	
	Customerid	int	lacksquare
	Bookingid	int	
	Priceofticket	int	$\overline{\mathbf{v}}$
	Payment_mode	varchar(50)	$\overline{\mathbf{v}}$
	Date	datetime	lacksquare
	Name	varchar(50)	$\overline{\mathbf{v}}$
	Contactno	varchar(50)	$\overline{\mathbf{v}}$

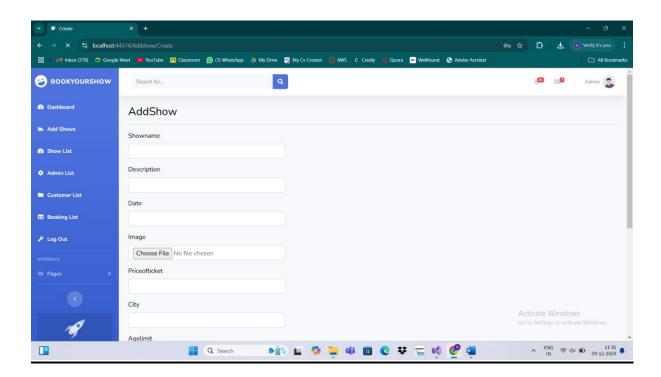
6.2 Interface Designing

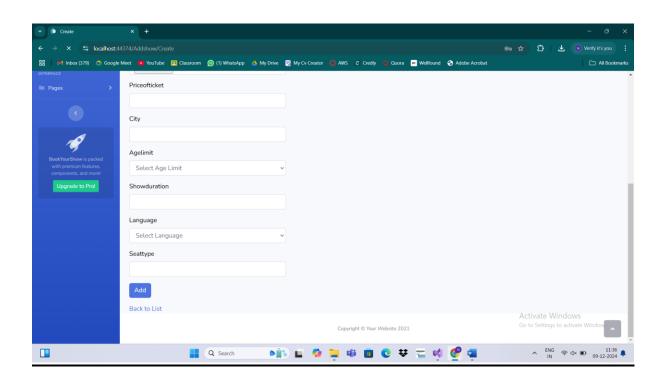
Admin

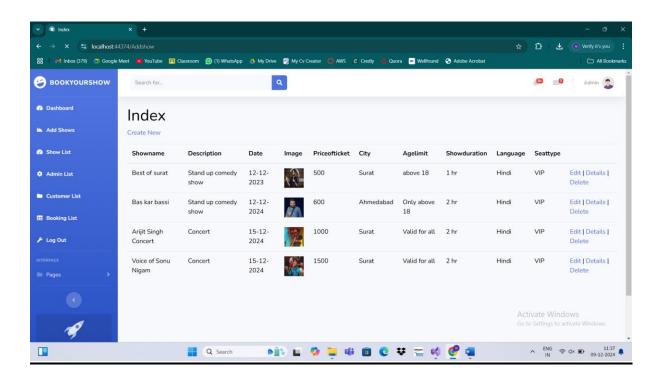


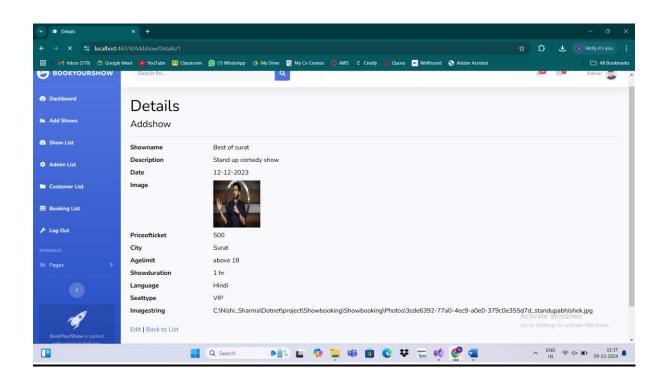


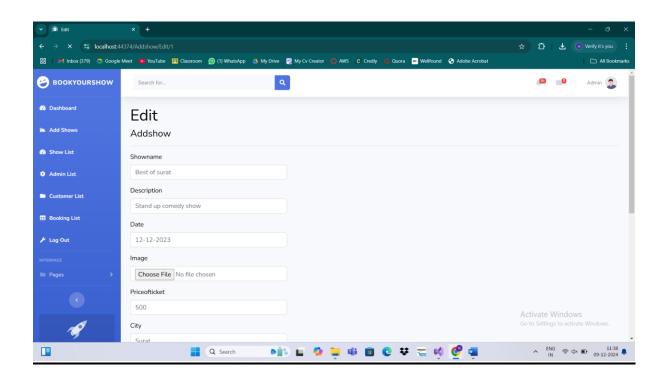


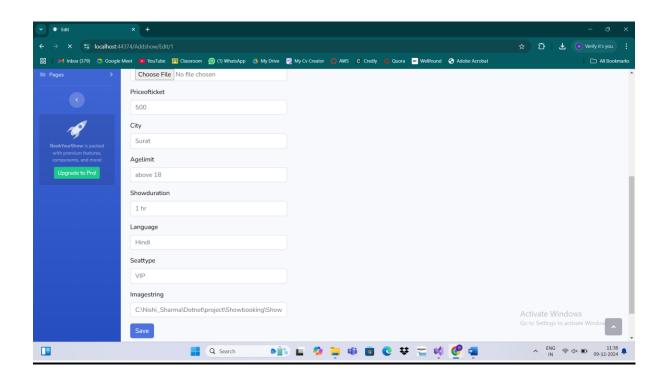


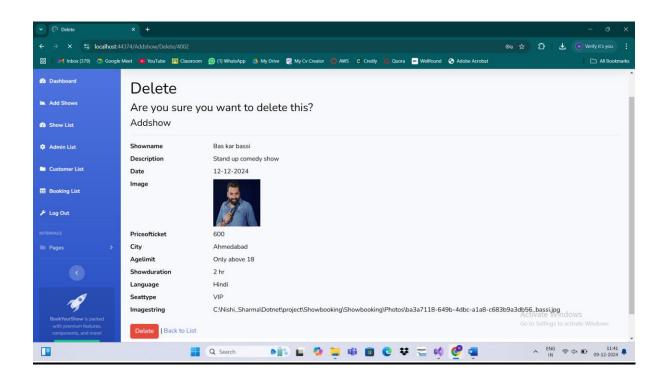


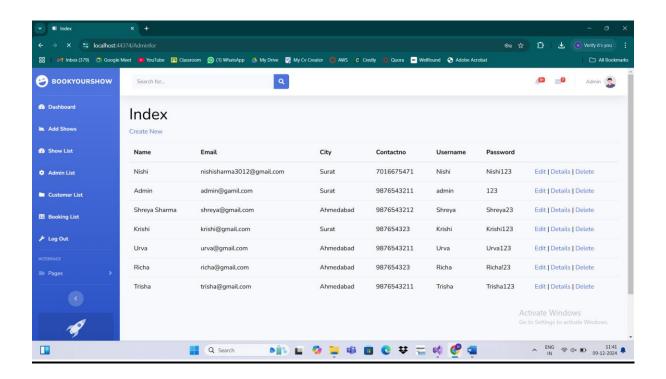


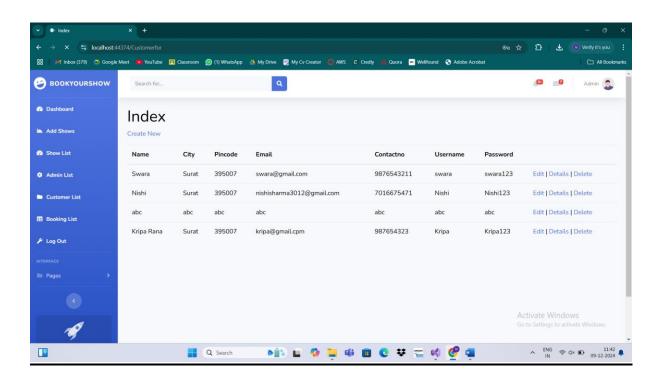


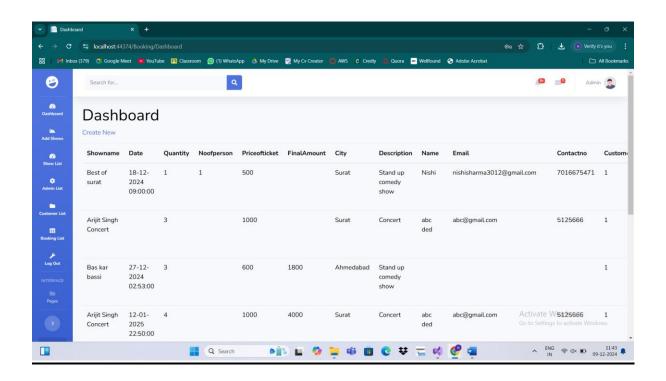


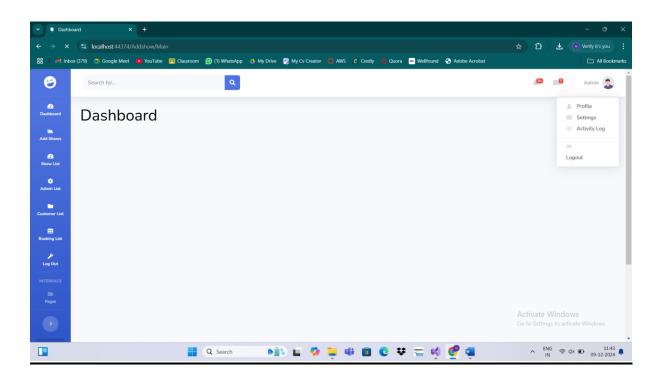




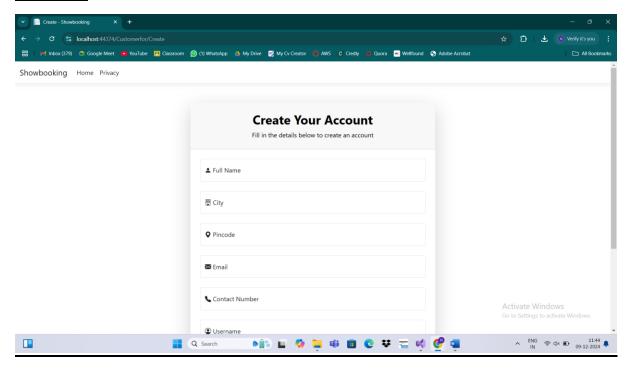


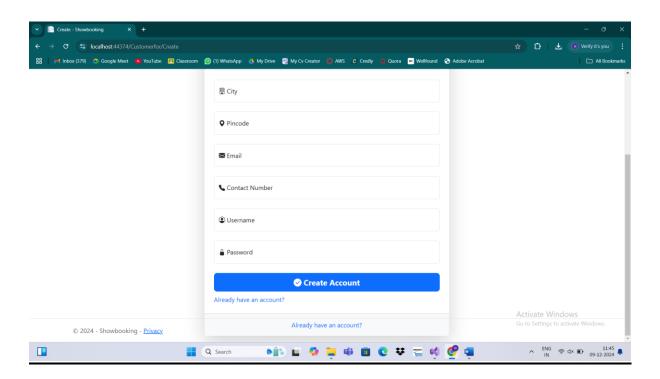


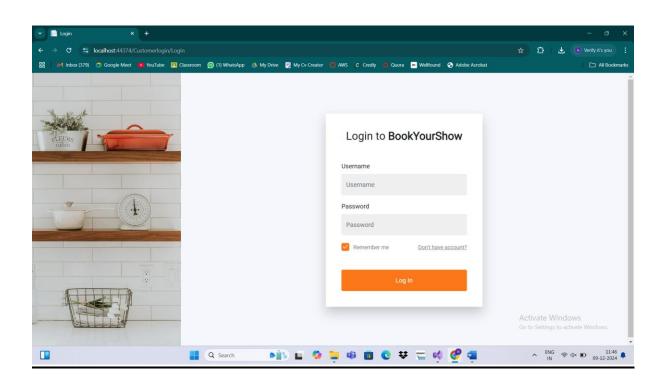


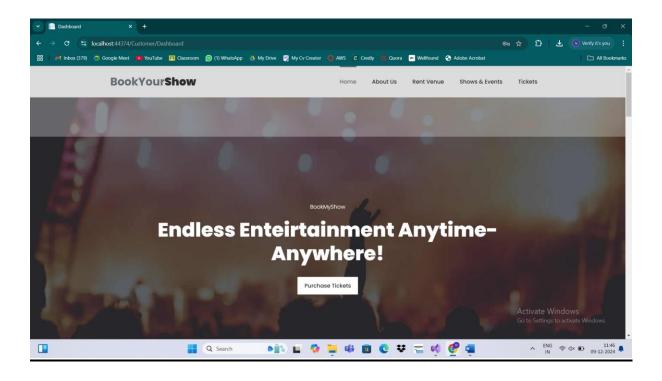


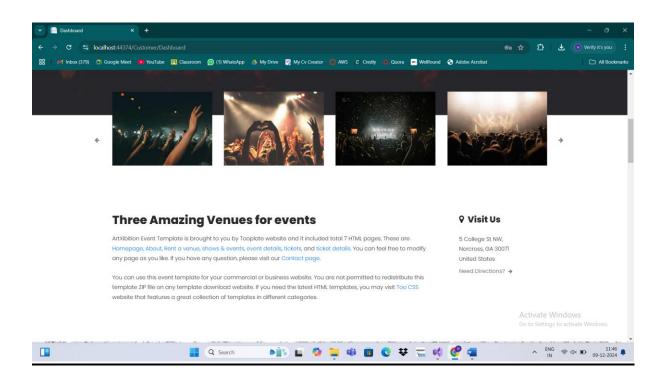
Customer

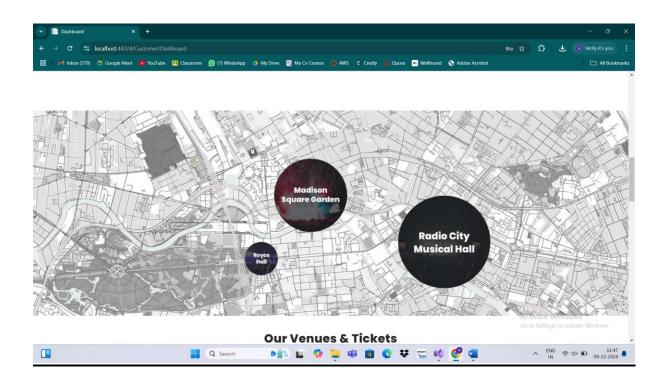


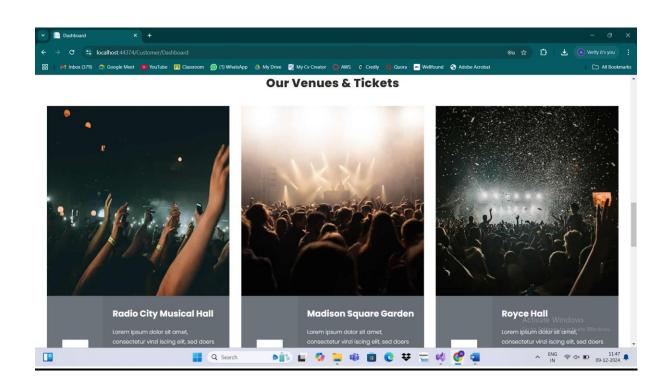


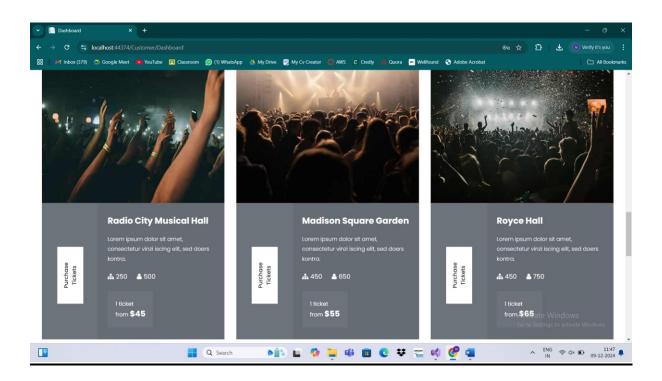


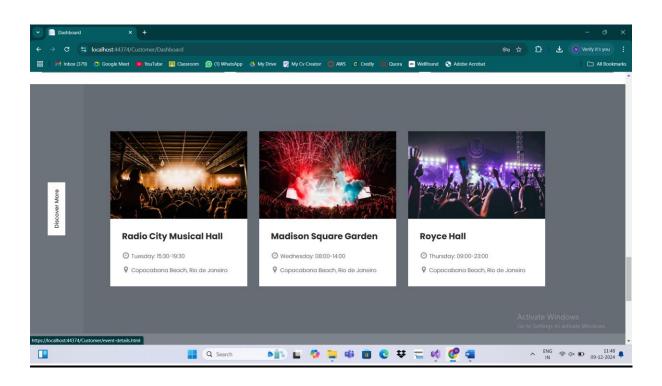


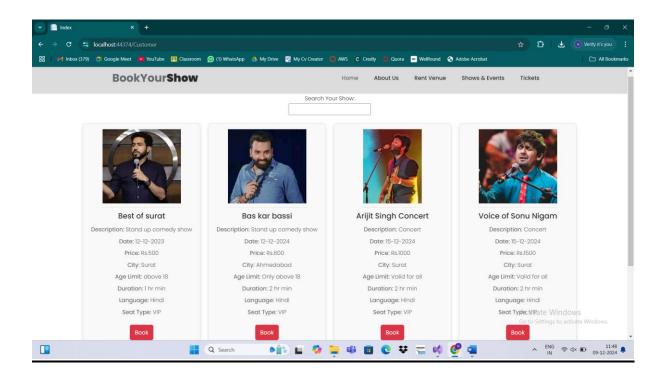


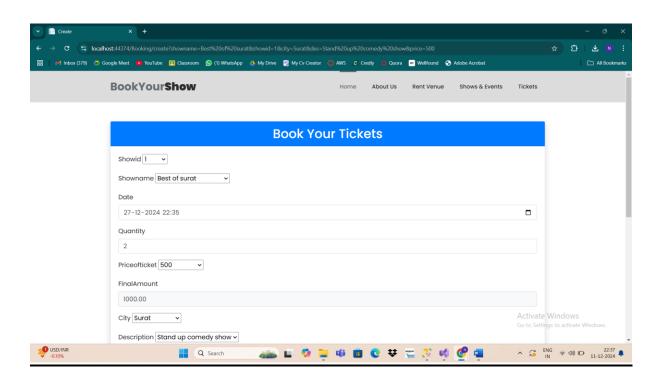


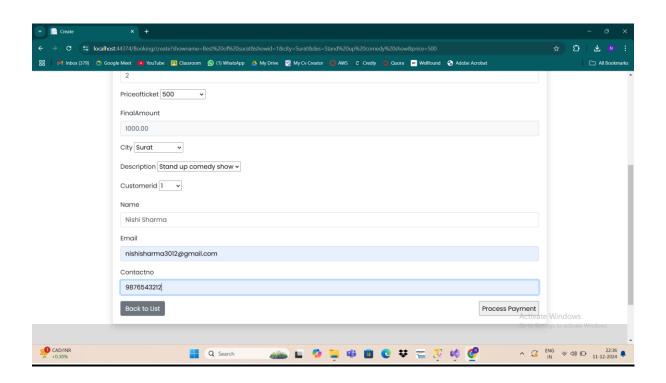


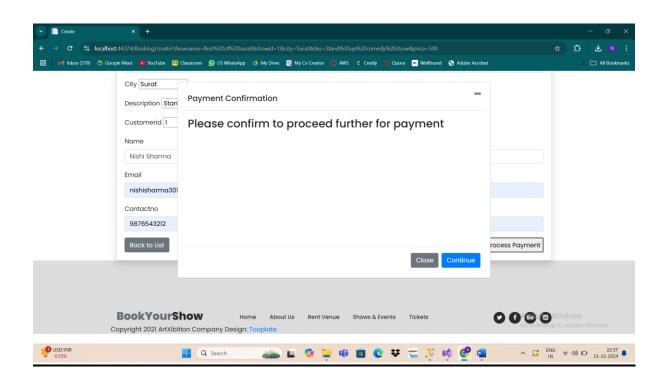


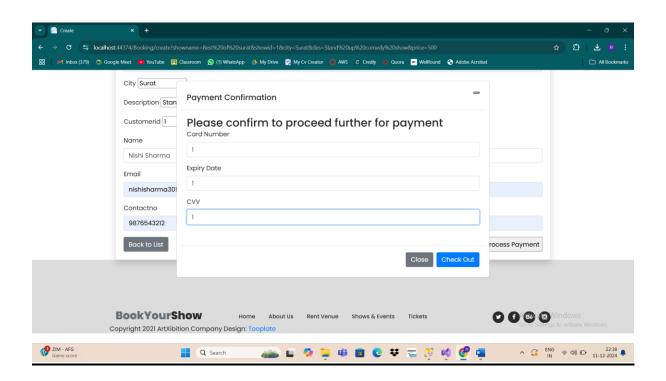


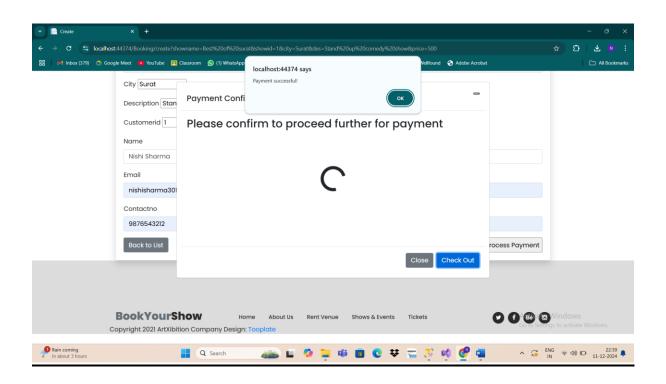


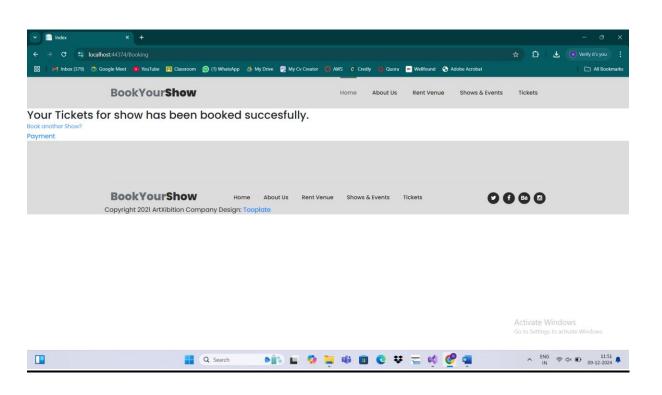


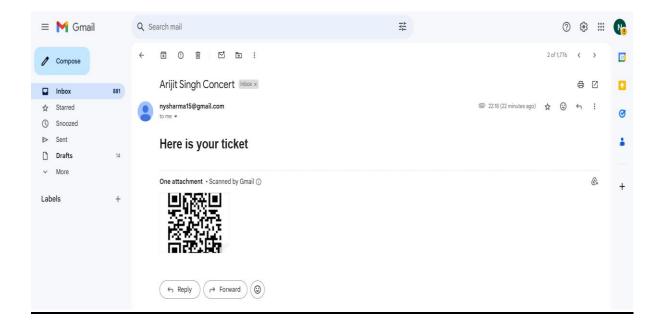












7. Testing

Module	Description	Test Cases	Expected Result	Status
Login	Test user authentication	- Login with valid credentials Login with invalid username/password Login with empty username/password.	 Logged in successfully. Invalid credentials error. Invalid credentials error. 	Passed Passed Passed
Customers	Manage customer profiles	- Get valid customer details.	- Display customer details.	Passed
Events	Manage event listings	Add event with all fields.If any field is missing.Add duplicate event.	Event inserted successfully.Error message.Error message.	Passed Passed Passed
Tickets	Manage ticket bookings	 Book tickets with valid inputs. Book tickets exceeding available seats. Book tickets with invalid event ID. 	- Booking confirmed Error: Seats unavailable Error: Event not found.	Passed Passed Passed
Payment	Manage payment process	 - Make payment with valid details. - Attempt payment with invalid card details. - Retry payment after failure. 	 Payment processed successfully. Error: Invalid payment details. Payment processed successfully on retry. 	Passed Passed Passed

8. Future Enhancement

- <u>Personalized Recommendations:</u> Use AI and machine learning algorithms to analyse user preferences and viewing history, offering personalized event suggestions and ticket deals.
- <u>Virtual Reality (VR) Previews:</u> Provide VR previews of event venues, allowing users to experience seating views and event ambiance before booking.
- <u>Dynamic Pricing Models:</u> Implement dynamic pricing based on demand, seat availability, and booking time, optimizing revenue and user satisfaction.
- <u>Social Media Integration:</u> Enable users to share event details, bookings, and reviews on social media platforms, increasing system visibility and user engagement.
- Offline Ticket Booking Support: Develop partnerships with offline retail outlets, allowing users to book tickets via QR codes or reservation codes.
- <u>Loyalty Programs</u>: Introduce a rewards system for frequent users, offering discounts, priority bookings, or exclusive access to premium events.
- <u>Multi-Language Support</u>: Expand the platform's accessibility by supporting multiple regional and global languages to cater to diverse audiences.

9. Reference

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