NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous College under VTU, Belagavi)

A Mini Project Report

on

"Web Application Development on Temple Accommodation for Devotees"

submitted in partial fulfillment for the course 22ISP56 of the degree

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

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DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the mini project work entitled **"Web Application Development on Temple Accommodation For Devotees"** carried out by Nandini M bearing 1NC22IS038, Saurav Raj bearing 1NC22IS049, Shashidhar S B bearing 1NC22IS053. Bonafide students of Nagarjuna College of Engineering and Technology, an autonomous institution under Visvesvaraya Technological University, Belagavi in partial fulfillment for the course Mini Project (22ISP56) of Bachelor of Engineering in **Information Science and Engineering** during the academic year 2024-2025 It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report.

Name & Signature of the Guide	**Name & Signature of the HOD**	**Name & Signature of the Principal**
Mr. Subramanya V.O	Dr. Sanjeevakumar M Hatture	Dr. B V Ravishankar
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ABSTRACT

The main goal of this project is to provide a comprehensive online application for overseeing temple lodgings for worshippers.

Enhancing accessibility, expediting the reservation procedure, and guaranteeing effective administration of lodging facilities related to temples are the objectives of the suggested approach.

The way that religious organizations interact with their followers has been profoundly altered by the digital revolution, which has also created fresh chances to update long-standing customs. The administration of pilgrims' accommodations at temples is one such sector. The creation of a web application to expedite the lodging procedure for pilgrims visiting temples is investigated in this study. With real-time occupancy changes, the application's centralized platform dynamically displays availability of rooms. Bookings can be tailored by devotees according to their requirements, including accessibility, facilities, cost, and proximity to the temple. Multiple payment methods are supported by a secure payment gateway, guaranteeing smooth transactions, and multilingual support serves the varied needs of devotees. User planning and engagement are improved by integrated features including festival timetables, event alerts, and check-in/check-out reminders.

Ensures user confidence, security protocols like data encryption, two-factor authentication, and adherence to data protection laws are implemented. Agile development strategies and usability assessments with target demographics have been utilized to ensure the application meets real-world needs. By combining temple management with innovative technology, this web application connects tradition with modernity, delivering a spiritual yet effective experience for devotees. Upcoming improvements include mobile app integration, predictive analytics for managing crowds, and partnerships with local tourism agencies to further enhance the ecosystem. This project represents a significant advancement in empowering devotees and temple officials through digital progress, facilitating more convenient, memorable, and satisfying spiritual journeys.

Important features including real-time availability tracking, intuitive booking interfaces, tailored suggestions, safe payment methods, and administrative tools for effective facility management are all included into the application

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CHAPTER 1

INTRODUCTION

Places of worship have consistently played a vital role in the spiritual and cultural experiences of countless individuals, acting as heavens for prayer, reflection, and community gatherings. Journeys to these sacred locations often involve extensive travel, as devotees seek tranquility and divine favor. Nonetheless, the growing interest in temples, particularly during festivals and special events, has resulted in a notable increase in visitor numbers. This surge presents logistical difficulties for temple management, especially concerning the accommodation of guests. Effective accommodation management is crucial for ensuring a serene and rewarding pilgrimage experience.

Traditionally, accommodations at temples have been handled through manual booking processes, which frequently lead to long waits, a lack of transparency, and an inability to meet the needs of a varied audience. Visitors traveling from far often encounter challenges in finding lodgings due to insufficient information about room availability or ineffective booking systems. Furthermore, during peak times, the demand for rooms often exceeds supply, adding to the complexity of the situation. Such issues typically result in dissatisfaction for devotees and operational inefficiencies for temple management.

In the current digital era, where online platforms are prevalent in areas like travel, hospitality, and commerce, there is an urgent need to modernize the management of temple accommodations. A web-based solution designed specifically for temple stays presents a viable response to these issues. By utilizing modern technology, such as real-time data updates, cloud technology, and secure payment systems, this platform can overcome the shortcomings of conventional methods. Additionally, a thoughtfully designed application can improve user experience with user-friendly interfaces, support for multiple languages, and accessibility features for those with disabilities.

The envisioned web application for temple accommodations seeks to establish a smooth connection between devotees and temple management. It offers real-time details regarding room availability, booking options, and payment methods. Guests can tailor their stay based on preferences like distance to the temple, accommodation type, and their budget. Moreover, the platform provides notifications regarding booking confirmations, festival dates, and event information, ensuring that users stay informed throughout their spiritual voyage.

By adopting digital advancements, this web application not only streamlines accommodation management but also upholds the integrity of the pilgrimage experience. It enables devotees to organize their visits with assurance and ease while allowing temple management to effectively oversee resources and meet the demands of an increasing number of visitors. Developing such a system represents a move toward merging technology with tradition, guaranteeing that spiritual journeys remain enriching, accessible, and unforgettable for each of them.

CHAPTER 2

LITERATURE SURVEY

S.No.	Paper Title	Research Gap	Methodology	Issues/Challenges	Future Scope	Highlights
1.	Design of an Innovative Campus Remote Seat Booking System for Smart Learning Environment	absence of methods for monitoring and booking seats in real time for university settings	IoT-based system for tracking and booking seats remotely.	Untested is scalability for larger or multi-campus systems.	Extend to many campuses and incorporate external platforms	IoT-based real-time booking and monitoring.
2.	Empirical and Comparative Analysis of Various Platforms for PG and Its Customization	Inadequate evaluation of platform adaptation and usability.	comparative study and empirical assessment of platforms.	lacks dynamic scenario testing and has a limited focus on specific platforms.	Add customisation powered by AI and expand analysis to international platforms.	comparative analysis of the usability and efficiency of PG platforms.

3.	Web-based Personalized Hybrid Book Recommendation System	Algorithms for recommending books are not sufficiently personalized	hybrid strategy that blends content-based and collaborative algorithms.	reliance on user data; absence of integration for real-time feedback.	For improved recommendations, include real-time data and machine learning.	Personalization is enhanced via hybrid recommendation systems.
4.	Online Book Recommendation System	Recommendation systems' datasets lack diversity.	methods for collaborative filtering.	There is no linguistic support and little diversity in the dataset.	Expand the diversity of the dataset and include linguistic elements.	Collaborative filtering is used effectively to propose books.
6.	System to Optimize the Process of Booking Medical Appointments for People with Upper Extremity Disabilities	insufficient accessibility-specific solutions for those with upper extremity impairments.	medical appointment systems with an intuitive and easily accessible UI.	ignores wider accessibility in favor of concentrating on particular limitations.	Include cognitive impairments and incorporate telehealth.	improved accessibility for people with certain disabilities.

7	Leveraging Web Application to Enhance Transport Mobility: Optimize Bus Sched ules and Ride-Share in Fiji's Central Division	restricted regional transportation system optimization.	application of optimization techniques and geospatial data. lacks	scalability validation and concentrates on a single region.	Apply sophisticate d traffic prediction and extend to larger areas.	Transport ation mobility is improved by optimized schedulin g.
8	Enhanced Efficiency and Customer Engagemen t Through the Online Shopping Arcade with Vendor Recommen dation and Pre-Booking System	Vendor and user demographic testing lacked diversity.	algorithms based on data for pre-booking and vendor recommendati ons.	Limited vendor representati on and user diversity in the tests.	Increase vendor options and incorporat e AI for user-specific customizat ion.	enhanced client interaction through recommenda tions based on data.
9	E-commerce Application Using PHP and Web Development : A Review	limited assessment of contemporary web technologies other than PHP.	Evaluation and analysis of e-commerce web development using PHP.	ignores other frameworks such as Angular or React.	Extend the focus to incorporat e analogies with contempor ary framework s.	information about the advantages and disadvantag es of PHP for e-commerce.

10	Development of Web Application for Accessing & Managing E-Resources	Limited e-resource management platform and format support.	contemporary web technologies for access control and resource classification.	lacks multimedia resource and mobile platform optimization.	Improve compatibility with multimedia resources and add support for mobile platforms.	efficient use of web-based solutions for e-resource management.

CHAPTER 3

SYSTEM REQUIREMENT AND SPECIFICATIONS

The System Requirements Specification (SRS) gives or helps devotees to navigate through functionalities, performance, constraint. Moreover, its acts as a guide.

3.1 Functional Requirements

- Devotee management- Enables users to create account and ensures secure login.

- Accommodation management- It provides real time availability , room preferences and which type of room has been booked.

- Booking system- Allow users to confirm reservations. Offer a variety of payment methods including online transactions.

- Feedback System-Permits devotee to provide reviews and comments on their accommodations. Give administrators the ability to see, reply to, and act upon feedback.

- Administrative Capabilities -Enable administrators to add, modify, or delete rooms and services. Offer analytics on booking patterns, income, and occupancy statistics.

  Predict room availability and recommend strategies for peak season management.

3.2 Non-Functional Requirements

- Usability-Provide a user interface that is easy to use and navigate. Make that the platform complies with WCAG (Web Content Accessibility Guidelines) and is usable by individuals with impairments. Support languages to accommodate a wide range of users.

- Performance The system needs to support a minimum of 10,000 concurrent users during high-demand periods. The response time for page loads or transaction processing should not exceed 3 seconds.

- Reliability Ensure 99.9% availability by utilizing a dependable cloud infrastructure for hosting the application. Implement automated backups to prevent data loss.

- Scalability The application must have the capacity to scale in order to accommodate more users and features when necessary, particularly during peak seasons such as festivals.

The system requirements specification details the essential functional and non-functional elements needed to create a reliable web application for temple lodging.

This solution intends to overcome the shortcomings of conventional systems and utilize contemporary technology to deliver an effective, safe, and user-centric experience for both devotees and temple management.

CHAPTER 4
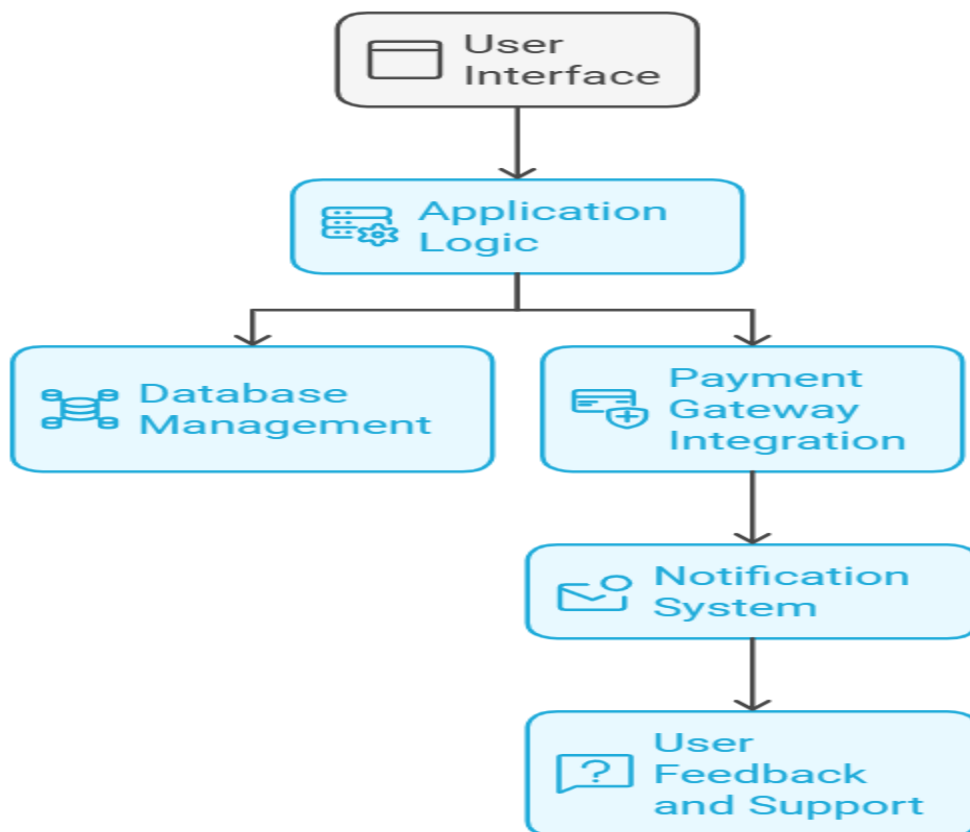
PROPOSED SYSTEM METHODOLOGY

4.1 Proposed system

Fig 1: Block Diagram

4.2 Methodology Used

> ➢ **Specifications Gathering:** To determine key features (such as reservations, payments, and alerts) and record project requirements, interview and survey temple employees and devotees.

➤ **System Design:** Plan the main modules (e.g., booking, user management), specify the database schema, and create a modular architecture using the selected tech stack (e.g., React, Node.js, or Django).

➤ **User-Centered Interface Design:** Provide a simple, easy-to-use interface that puts accessibility and usability first while taking language support into account.

➤ **Development:** Focus on essential features like reservations, payments, and user profiles while employing the Agile technique for incremental development. Perform testing and sprints on a regular basis.

➤ **Testing and Quality Assurance:** To guarantee functioning, security, and a seamless user experience, do unit, integration, and usability testing.

4.3 Objectives

➤ **Simplify Reservations:** Provide a user-friendly website that enables followers to make reservations online with real-time availability and immediate confirmations.

➤ **Improve User Experience:** Offer a smooth, intuitive interface with search, filtering, and safe online payment choices that streamlines the reservation process. Boost accessibility by allowing followers to discover available lodging options, make bookings in advance, and use the system from any location.

➤ **Optimize Resource Management:** Help temple officials effectively handle reservations for lodging, avoiding overbooking and underuse of rooms.

➤ **Provide Flexible Payment Options:** Include safe payment gateways so that reservations can be made online and donations to the temple may be made.

➤ **Provide Transparency:** Make sure devotees are given precise and understandable information about available facilities, costs, and booking status.

➢ **Facilitate Event Information:** To keep devotees informed during their visit, provide information regarding temple events, important occasions, and services.

CHAPTER 5

IMPLEMENTATION AND SYSTEM TESTING

5.1 Development Stages:

Stage 1: Create the fundamental user interface and establish a connection to the database.

Stage 2: Integrate secure payment methods and set up notification systems.

Stage 3: Introduce enhanced features such as AI-generated recommendations and support for multiple languages.

5.2 Testing Methods:

Unit Testing: Evaluates individual components, such as the booking module or payment processor.

Integration Testing: Verifies seamless interaction among the frontend, backend, and database.

Load Testing: Mimics peak traffic conditions to assess system performance.

Security Testing: Detects vulnerabilities and confirms adherence to data protection standards.

1.3 Steps to purchase hosting from Hostinger and create a website:

Step 1: Choose a Hosting Plan

1. *Visit Hostinger's Website*: Go to [Hostinger](https://www.hostinger.com/).

2. *Select a Plan*:

   - Choose a hosting type based on your needs: *Shared Hosting, **Cloud Hosting, or **VPS Hosting*.

   - For beginners, *Shared Hosting* (e.g., Single, Premium, or Business) is a good start.

3. *Add to Cart*: Click on the "Add to Cart" button for your selected plan.

Step 2: Register a Domain

1. *Free Domain (if included)*: Some plans include a free domain for the first year.

2. *Search for a Domain*: Enter your desired domain name and check its availability.

3. *Add Domain to Cart*: If it's available, add it to your cart. If not, modify the name or choose another.

Step 3: Complete the Purchase

1. *Choose Billing Cycle*: Select the duration (e.g., 12 months, 24 months, etc.). Longer durations often offer discounts.

2. *Create an Account*: Sign up with your email or log in with Google.

3. *Apply Coupon (Optional)*: Use any available promo codes for discounts.

4. *Payment*: Choose a payment method (credit card, PayPal, etc.) and complete the payment.

Step 4: Set Up Your Hosting

1. *Access Hosting Dashboard: Log in to your Hostinger account and navigate to the **hPanel* (Hostinger Panel).

2. *Set Up Your Domain*: Link your purchased domain to the hosting plan.

3. *Install SSL Certificate*: Install the free SSL certificate (often included in plans) for secure HTTPS.

Step 5: Install a CMS (e.g., WordPress)

1. *One-Click Installer: In the hPanel, go to **Website* > *Auto Installer*.

2. *Select CMS: Choose **WordPress* (or any other CMS).

3. *Enter Details*:

   - Set up an admin username, password, and email.

   - Choose a theme if prompted.

4. *Install*: Wait for the installation to complete.

Step 6: Design Your Website

1. *Access WordPress Admin*: Log in to your website's backend at yourdomain.com/wp-admin.

2. *Choose a Theme*:

   - Go to *Appearance > Themes* and install a free or premium theme.

   - For a temple or accommodation website, search for relevant themes.

3. *Install Plugins*:

   - Essential plugins like *Yoast SEO, **Elementor (for design), and **Contact Form

   - Add specific plugins for booking or temple management if needed.

4. *Customize*: Use the WordPress editor to add pages, content, and images.

 Step 7: Publish Your Website

1. *Preview*: Review your site to ensure everything is in place.

2. *Launch*: Make your website live by removing the "Under Construction" mode.

3. *Test*: Check all links, forms, and features.

Step 8: Maintain Your Website

1. *Regular Backups*: Enable automatic backups in the hPanel.

2. *Update Software*: Keep WordPress, themes, and plugins updated.

3. *Monitor Performance: Use tools like **Google Analytics* to track visitors.

CHAPTER 6

EXPERIMENTATION AND RESULT ANALYSIS

This section examines the practical implementation and effectiveness of the system during testing and initial deployment. Key performance indicators include:

I.   Reduction in Booking Time: The duration required for users to finalize bookings compared to conventional methods.

II.   System Efficiency: Response times and dependability under differing levels of demand.

III.   User Feedback: Input from pilot participants regarding usability and overall experience.

The findings illustrate the system's capacity to efficiently manage high traffic, deliver precise real-time information, and improve user satisfaction. Comparisons with current systems emphasize the proposed application's benefits in terms of usability, scalability, and reliability.
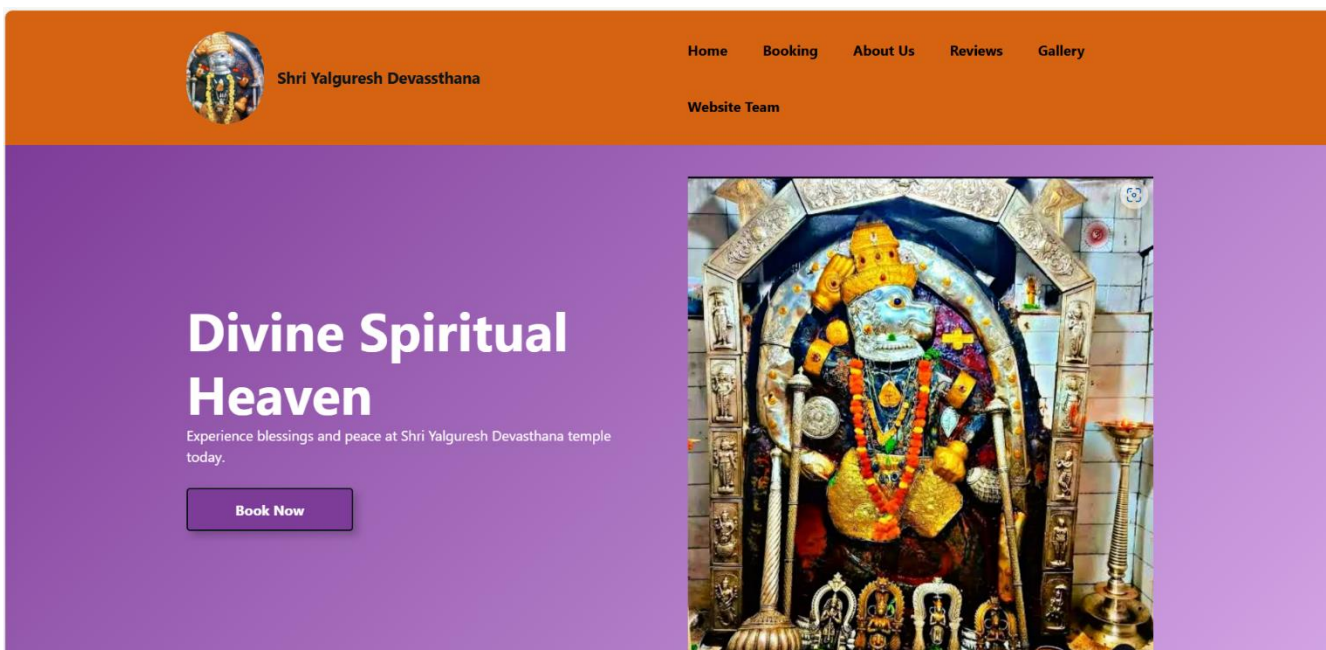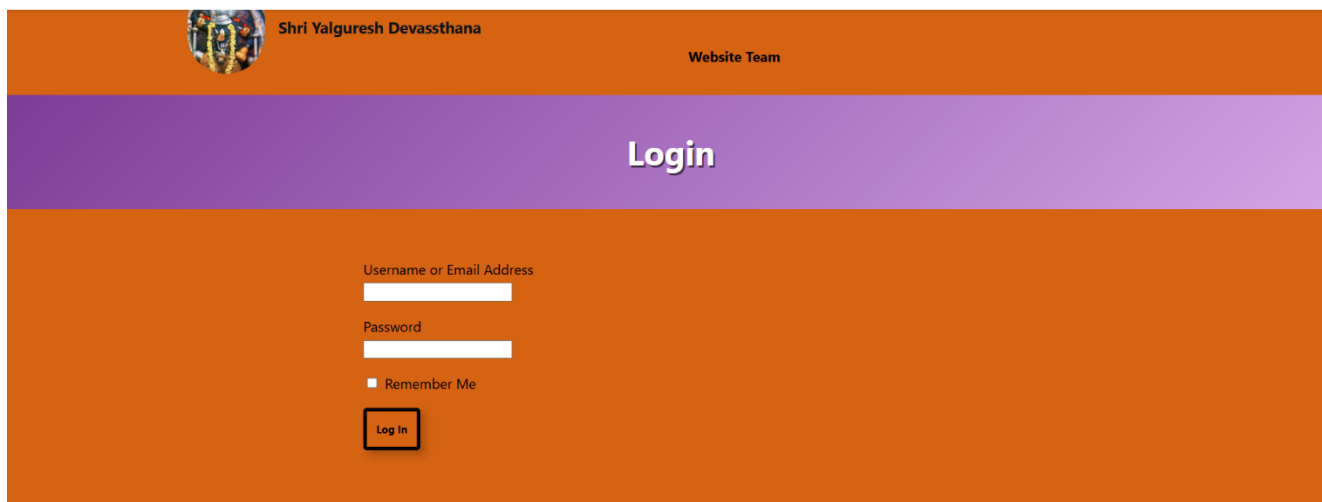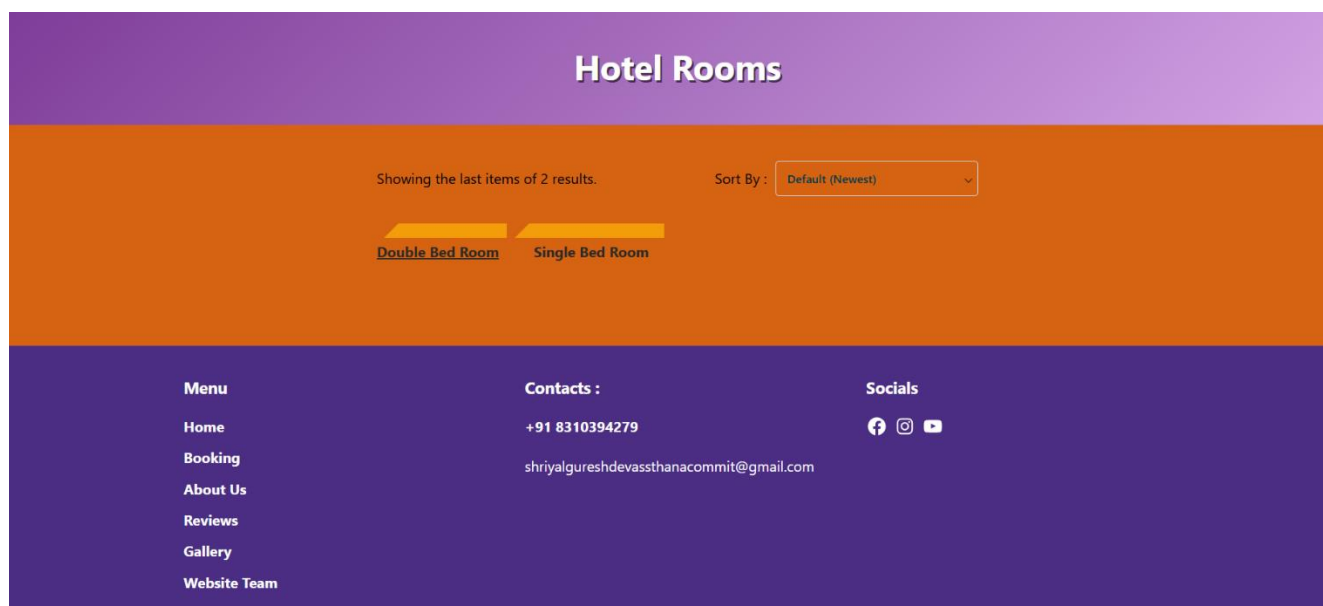
Fig 2: Developed website (This figure shows the user Interface)

Fig3: Login Page

Fig4: Room Booking page

Fig5: About the temple lodgings

CHAPTER 7
CONCLUSION AND FUTURE SCOPE

The conclusion encapsulates the project's successes in tackling the challenges of managing accommodations at temples. It highlights how the application has modernized the booking experience, improved user satisfaction, and assisted temple management.

The Future Scope discusses possible future enhancements, including:

❖ Creating a mobile app to increase accessibility for users.

❖ Implementing predictive analytics to better manage crowds during busy times.

❖ Partnering with local transportation and tourism providers to create a comprehensive pilgrimage planning experience.

❖ Utilizing IoT technologies for efficient room management.

This section underscores the application's potential for development and its broader implications in the field of spiritual tourism.

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PROJECT REVIEWS AND OUTCOMES

Dr Raghavendra Kulkarni

Senior ISRO scientist (website Launch)

SR.CIVIL JUDGE AND JMFC HUNGUND
SRI HANAMANTARAO R. KULKARNI

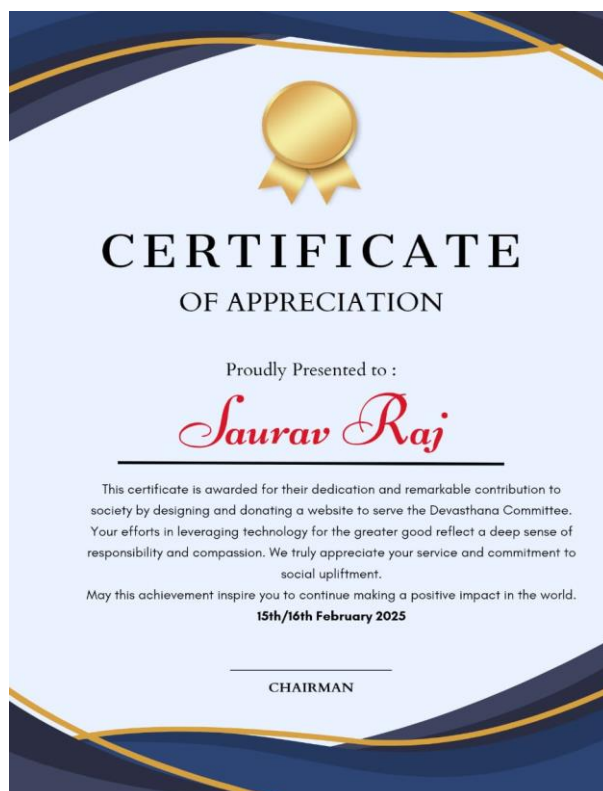RAGHAVENDRA B NAKOD LEAD CONSULTANT INFOSYS LIMITED

SHRL LAXMAN B NIMBARGI, IPS
SP VIJAYAPURA

SANGEETA KATTI KULKARNI, IS AN INDIAN PLAYBACK SINGER

CERTIFICATE OF APPRECIATION

Fund received by the temple coordinators