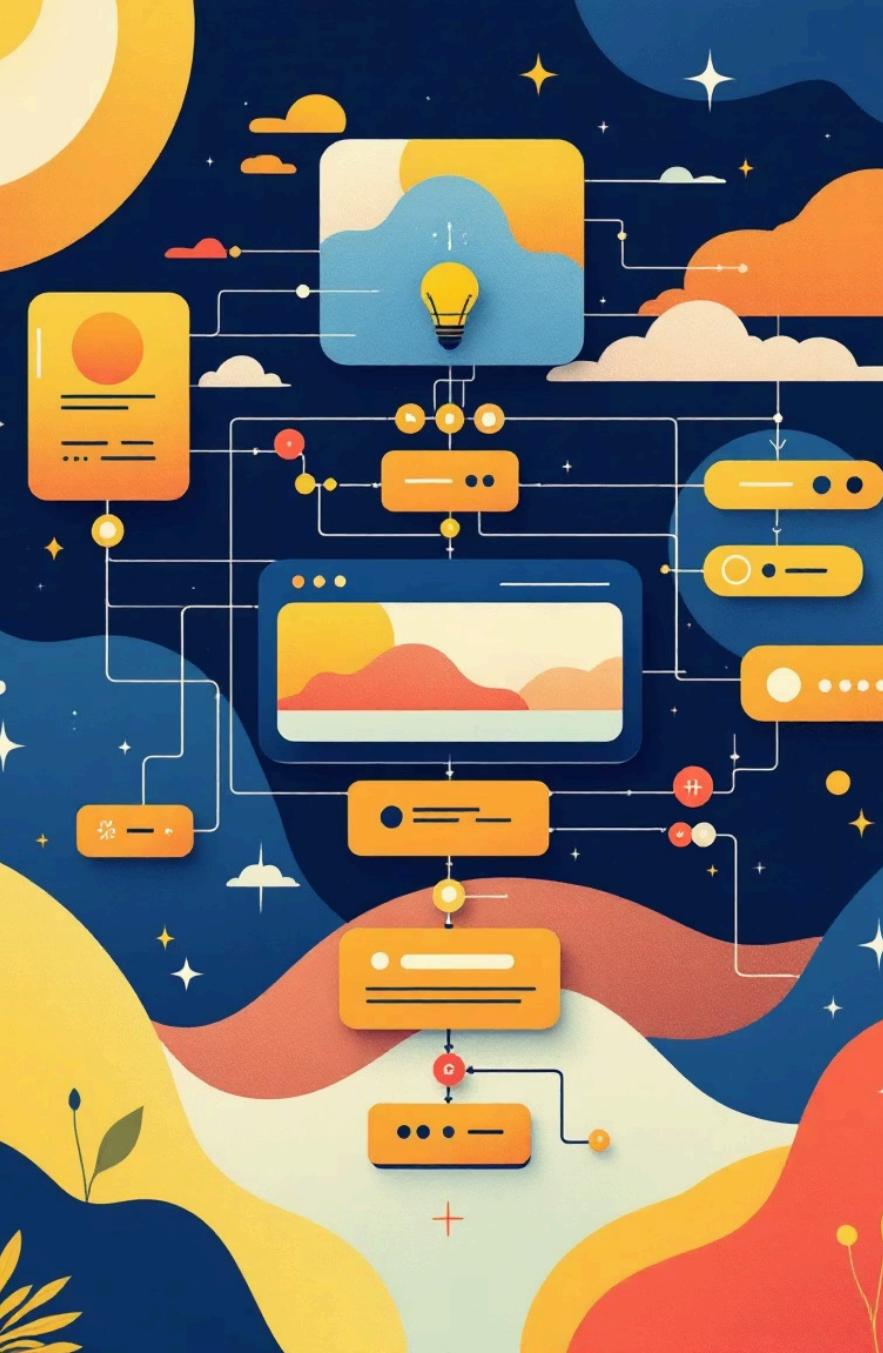




TravelNest Hotel Booking Platform

A comprehensive digital solution connecting travellers, hotel owners, and administrators through seamless booking experiences

Group Number: 49 | **Team Leader:** Aadesh Phadake



Project Vision & Architecture

Platform Goals

TravelNest delivers a robust, scalable hotel booking ecosystem that streamlines the entire hospitality journey. From initial search to final payment, our platform ensures reliability, security, and user satisfaction across all stakeholder groups.

Technical Foundation

Built on modern web technologies including Express.js for backend services, Mongoose for database management, and role-based authentication systems. RESTful API architecture enables seamless communication between modules whilst maintaining security and performance.

Core Platform Modules



Traveller Experience

Browse hotels, search listings, book rooms, manage reservations, and access membership benefits



Hotel Owner Portal

Dashboard for property management, listing creation, booking oversight, and notification systems



Admin Dashboard

Listing approvals, user management, analytics monitoring, and platform oversight capabilities



Payment System

Secure transaction processing, payment dashboard, and comprehensive financial tracking

Team Leadership & Backend Architecture



Aadesh Ashok Phadake

S20230010185 | Group Leader

Aadesh spearheaded the backend integration, establishing the technical foundation for TravelNest. His leadership ensured cohesive development across all modules whilst maintaining code quality and architectural consistency.

Key Contributions

- Set up Express routes and designed RESTful API architecture
- Managed database connectivity and ensured data integrity
- Updated core controllers for listings and user management
- Integrated admin and payment modules seamlessly
- Contributed to admin and payment view development



Backend Logic & Admin Systems

Aku Rishita

S20230010008

Aku developed critical backend controllers implementing business logic, robust data validation, and comprehensive error handling. Her expertise in role-based access control strengthened platform security across all user types.

Technical Achievements

- Co-developed admin dashboard for listing approvals and user management
- Implemented role-based access control systems
- Designed user and hotel management interfaces
- Integrated AJAX functionality for dynamic admin operations
- Enhanced Hotel Owner Dashboard with notification features

Traveller Module & Payment Integration

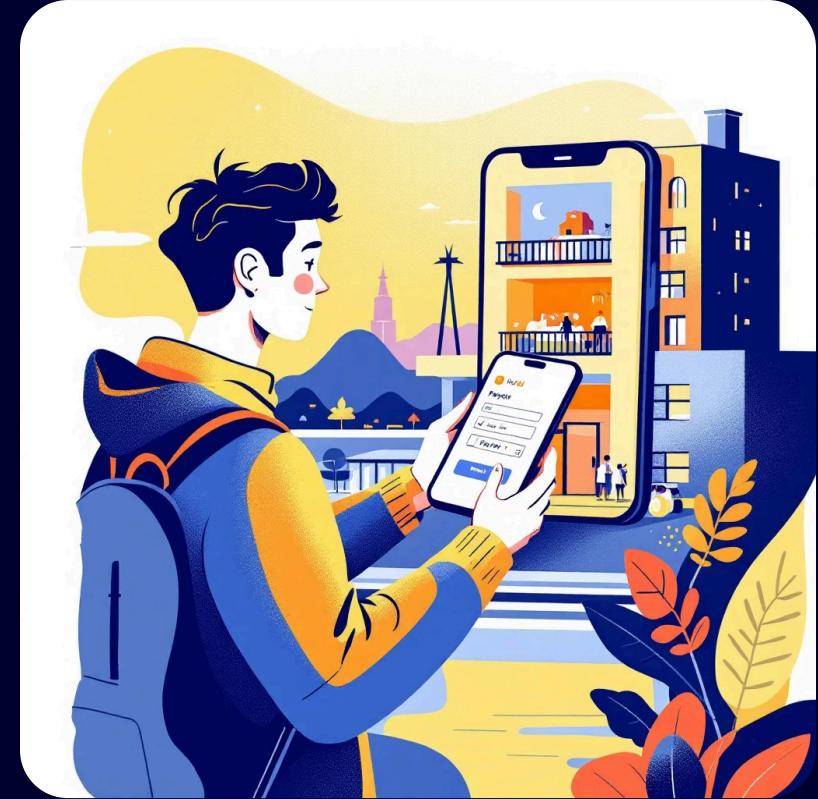
Jalla Venkata Sai Ganesh Reddy

S20230010107

Ganesh crafted the complete traveller experience, from initial hotel discovery through to payment completion. His work on the payment systems ensures secure, efficient transaction processing whilst the membership system adds value for returning customers.

Module Responsibilities

- Developed browsing, search, and booking functionalities
- Built comprehensive payment page and dashboard
- Implemented transaction handling and payment tracking
- Created membership system with profile management
- Integrated AJAX for dynamic profile updates



Database Architecture & User Experience

Kondapalli Hemanth

S20230010119

Hemanth designed the foundational database schemas, creating and maintaining Mongoose models for users, rooms, bookings, and related entities. His structured approach ensures data consistency and optimal query performance.

User Dashboard Development

Built intuitive traveller dashboard enabling booking management, profile updates, and reservation tracking with seamless user experience

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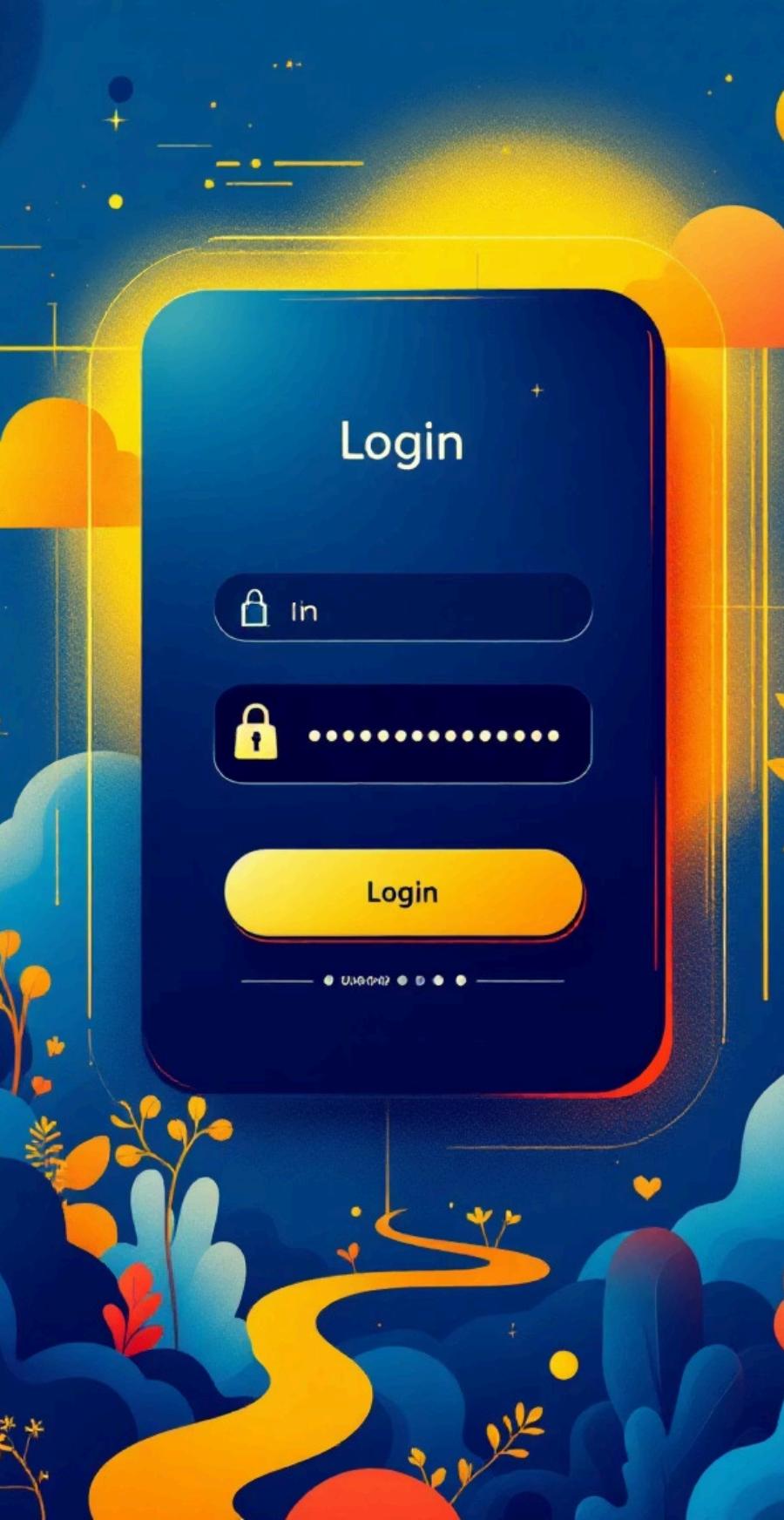
Database Design

Created comprehensive Mongoose models establishing relationships between users, properties, bookings, and transactions whilst ensuring scalability and data integrity

Additional Features

Integrated interactive maps for location services and designed taxi booking functionality, enhancing the complete travel experience

Authentication, Design & Hotel Owner Experience



Padavatan Simon Peter

S20230010171



Simon Peter established the security foundation through robust authentication systems whilst leading the visual design direction. His dual expertise in backend security and frontend aesthetics created a platform that's both secure and visually appealing.



Comprehensive Contributions

- Designed authentication system with role management and session handling
- Developed complete CSS architecture and styling framework
- Built main components of Hotel Owner Dashboard
- Implemented customer care support system
- Ensured consistent visual identity across platform

Technical Stack & Achievements



Backend Excellence

Express.js RESTful APIs, robust controller logic, comprehensive error handling, and seamless module integration



Database Design

Mongoose schemas, optimised data models, relationship management, and scalable architecture



Security Systems

Role-based access control, secure authentication, session management, and payment security



User Experience

Responsive design, intuitive dashboards, AJAX integration, and comprehensive styling



Payment Processing

Secure transactions, payment dashboards, membership systems, and financial tracking



Enhanced Services

Interactive maps, taxi booking, customer support, and notification systems

Project Success & Future Vision

Collaborative Achievement

Through dedicated teamwork and specialised expertise, Group 49 delivered a comprehensive hotel booking platform that addresses real-world hospitality challenges. Each team member's unique contributions created a cohesive, professional-grade solution.

Platform Impact

TravelNest demonstrates technical proficiency across full-stack development whilst delivering genuine value to travellers, hotel owners, and administrators through intuitive interfaces and reliable functionality.



- **Group 49 Team:** Aadesh Phadhake (Leader), Aku Rishita, Jalla Venkata Sai Ganesh Reddy, Kondapalli Hemanth, Padavatan Simon Peter