

# **Web-based Tourism & Travel Management System**

## **Introduction**

This system will streamline tourism management by allowing customers to browse, book, and pay for tour packages online, while enabling staff, managers, and tour guides to manage bookings, packages, and customer interactions efficiently and let marketing management to track popular packages and how ads are performing.

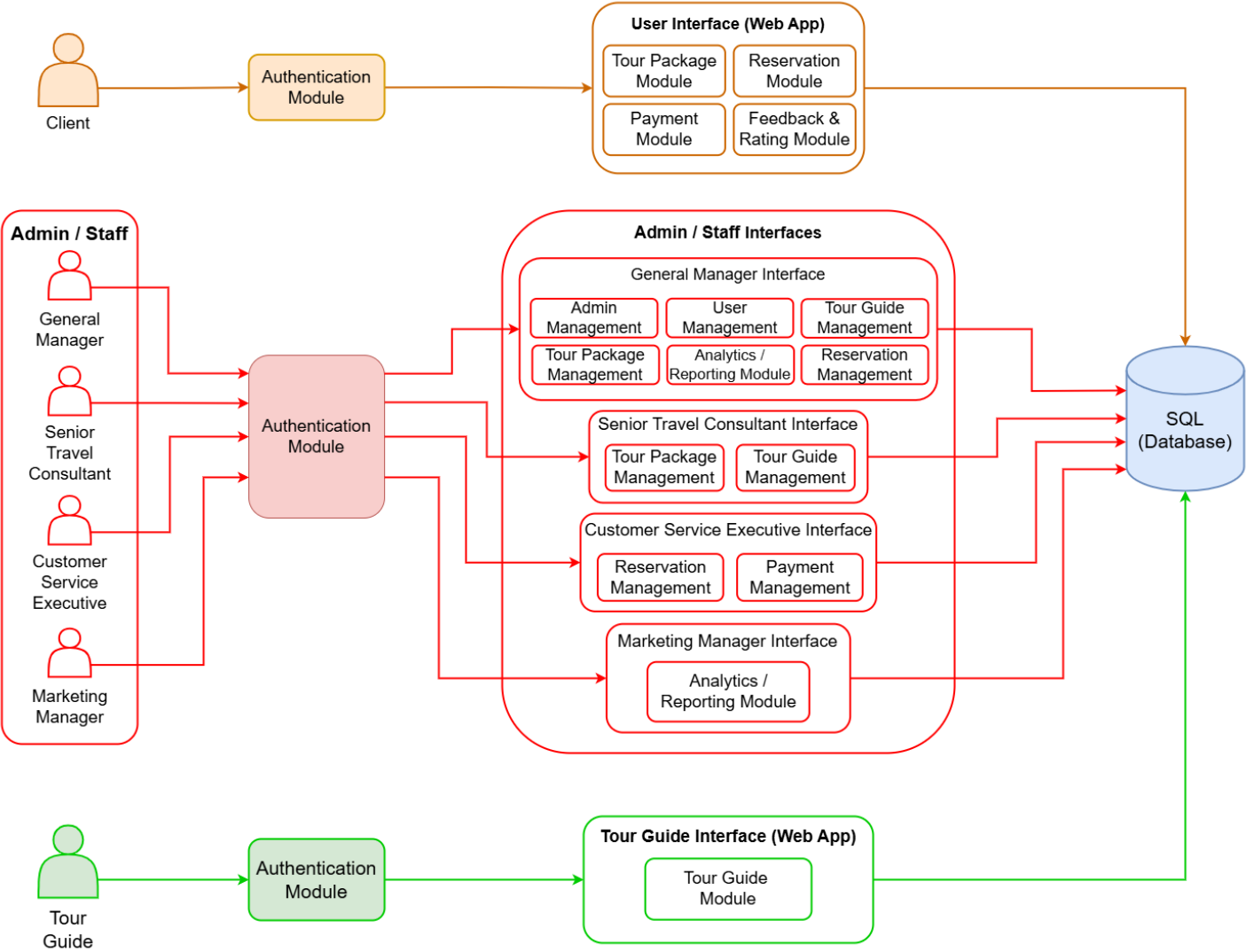
As objectives and goals this system will Provide user friendly platform for booking tours and managing travel arrangements. Improve efficiency of staff in handling bookings, payments, and customer support. It Enables real-time updates for customers and staff while centralize marketing and performance analytics for managers and let managers see all bookings, payments and download reports in same dashboard.

The scope of this system is customers can book tours, online payments and give feedback. Manager can see performance and download relevant reports. User logins for customers, manager, staff and tour guides. Managing external hotel/transport booking systems directly is out of scope.

As limitation, customers can select only one package at one time and give one feedback one time. This system only shows listed tour packages within system only .travel consultant manager will assign a tour guide, and customers cannot ask for specific tour guides and the tour guide management part also will be doing by him as any tour guide can't register to the system . (senior travel consultant approval will be needed)

In conclusion, the Web-based Tourism & Travel Management System will act as a complete solution for managing tourism services digitally.

# System Overview Diagram



# Functional Requirements

- **Tour package browsing, booking, and availability checks**  
Customers can search and filter tour packages and the system checks availability and confirms bookings in real-time.
- **Secure online payments and refunds**  
Integration with secure payment gateways. (online payments) and Structured cancellation and refund management.
- **Dynamic tour package management**  
Staff (senior travel consult) can add, edit, or remove packages and he has the Ability to set discounts, promotions, and seasonal offers while marketing management analyzing the performance of packages and highlight popular and recommended packages.
- **Booking updates**  
Staff can view and update bookings in real-time.
- **Dedicated tour guide management board.**  
Tour guides can log in and see ongoing tours assigned to them and Guides can view details of customers who hired them.
- **Customer feedback and rating system.**  
Customers can rate and review completed tours. And see Average ratings are visible for packages. Managers can review feedback to improve service quality.
- **Performance tracking and reporting.**  
Managers can generate reports on bookings, payments, and package performance and Detailed analytics dashboards to support data-driven decisions.

# **Non-Functional Requirements**

## **Usability:**

Simple and modern UI, user friendly dashboard even in first use customer should understand how to make a booking without help.

## **Performance:**

Even if many users use it at the same time, it should still work smoothly.

## **Security:**

The system will protect user data. Only staff and customers can log for relevant interfaces by their emails. passwords must be safe and not easy to guess.

## **Scalability:**

The system should handle an increasing number of users and data without performance issues. It must be easy to expand by adding new features or upgrading resources. The design should support future growth in both user traffic and system functionality.

# Major Stakeholders

**General Manager** - View all bookings, payments, and download reports.

**Senior Travel Consultant** - Doing package management and tour guide management.

**Customer Service Executive** - Send confirmations and handle reserved packages from client side.

**Tour Guide** - View assigned tours and schedules and can see feedback.

**Marketing Manager** - Manage promotions and track package performance. Analyzing popular tour packages and suggestions.

**Customer** - Book tours and make payments online. Can a refund and give feedback.

# **Six Major Functions**

## **1. Manager Role**

- Who use it – General Manager
- What it does - Allow Users (manager, client, staff and tour guide) to log in their interfaces.
  - Allow to view system-wide summaries.
  - Allow managers to download relevant reports when necessary.
  - Admin management
  - Manage user accounts
- Outcomes – Quality Management.

## **2. Travel Consultant Role**

- Who use it – Senior Travel Consultant
- What it does - Allow manage tour packages(create, update, delete) packages
  - Allow to see what are available packages after customer book their chosen package
  - Allow to see tour guide availability
  - Allow to manage guide profiles.
- Outcomes - Updated schedules, Updated package listings, and show assigned guide to each tour .

## **3. Executive Role**

- Who use it - Customer Executive Manager
- What it does - Allow manage reserved tour booking (update the status from admin side).
  - Allow to see the booking history of client side.
  - Allow to see and assign tour guide.
- Outcomes – giving status to client about booking confirmation to client.

## **4. Marketing Role**

- Who use it - Marketing Manager
- What it does - It does both analyzing performance of packages and manage online payments.
  - Allow to analyze performance of each package.
  - Allow to manage internet payment.
- Outcomes - Confirmed payments or refunds and suggest and let customers see most popular packages.

## **5. Guide role**

- Who use it –Tour Guide
- What it does - Allow guide to see what tour he is assign to. allow to Logging as tour guide. And can update profile.
  - Feedback management and rating system allow to leave a feedback and rate complete tours.
- Outcomes – confirm assign tours and share customers details about tour.

## **6. Customer role**

- Who use it – Customer
- What it does - User authentication system for new and returning users
  - Allow to see Landing page with highlights, promotions, and popular packages, about.
  - Allow to create and edit their profile
  - Allow to see booking history, tour packages and do internet payments
  - Allow to ask for a refund and give feedback
- Outcomes – booking tour packages, online payments, feedback giving , assigned tour guide after confirmation of payment .

## Minor Functions

- User (staff, guide and client) login & role-based access control.
- Password reset.
- Notification email
- Search & filter features for tour packages.
- Profile management for customers and staff.
- Auto generated receipts
- Refund handling

## System Limitations / Constraints

### Platform Limitations

- The system is built as a **Java-based web application**, which requires hosting on a **Java-compatible web server** (e.g., Apache Tomcat).
- The system currently supports **web platforms only**; **no native mobile app** support is included in this phase.

### Device Compatibility

- The system is optimized for **desktop and laptop usage** with modern web browsers (Chrome, Firefox, Edge).

### Browser & Technology Assumptions

- Users are expected to have **JavaScript-enabled browsers** and **stable internet connectivity**.
- Some third-party services (e.g., **payment gateway APIs**) require reliable up time, which is **outside our control**.



## Scope Constraints

- The system does not include **real-time chat support** or **AI-based recommendation** features.
- Admin features are **limited to CRUD and analytics**; complex automation (e.g., predictive sales analysis) is not included.
- **Manual approval** may still be required for certain refund and guide assignment tasks.

## Simple Timeline (Week 03 to Week 14)

Week 03	Finalize project requirements and initial design approval with proposal presentation.
Week 04	Create system architecture and database design.
Week 05	Finalize system architecture. Set up development environment and GitHub repository
Week 06	Start individual module development (each member begins their major function). Begin Sprint 1.
Week 07	Continue backend and frontend development. Collaborate to integrate basic modules.
Week 08	Conduct internal testing of partial features. Update diagrams (Activity, Class). Begin Sprint 2.
Week 09	Prepare Progress Presentation materials. Finalize partial working prototype. (less project work because midterm examination)
Week 10	<b>Progress Presentation &amp; Demo.</b> Collect feedback from evaluators.
Week 11	Refine features based on feedback. Continue with full integration and final module polishing.
Week 12	Test complete flows. Implement payment gateway and reports. Conduct Sprint 3
Week 13	Prepare final presentation, report, and documentation. Perform bug fixing and UI refinement.
Week 14	<b>Final Evaluation:</b> Present fully working system and submit final report.

## **Conclusion**

The project Web-based Tourism & Travel Management System will act as a complete solution for managing tourism service digitally. allowing customers to browse, book and pay online while enabling staff, managers and tour guides to manage packages and customer interactions. The system will track popular packages based on reviews.

Our team is confident that this system is worth implementing as it will provide a customer friendly platform for booking tours even if it is their first time. This system will help them to sort packages as they need, and they will automatically be assigned to a tour guide too. This is a huge benefit for customers who do not have a good idea about tours.

In same time implementing this system will reduce manual process and minimize errors that can be happen with staff side. By following the defined timeline and dividing the six major functions among group members, it will help to complete this project successfully.