

# TOURS & TRAVELS PROJECT

## Objective

The objective of this project is to develop a comprehensive **Tours & Travels Management System** that streamlines the operational management of travel services and enhances the customer experience. The system provides a centralized platform where administrators can efficiently manage destinations, lodging, transport, and bookings, while customers can seamlessly explore and book tour packages. The platform ensures secure data handling, role-based access control, and real-time updates to support scalable and efficient travel operations.

## Scope and Functional Overview

The system is divided into modular components to address the needs of both administrators and customers, while ensuring robust security, data management, and user experience.

### 1. User Modules

#### Administrator Module

- Role-based access for authenticated admins only.
- **Location Management:** Add/update/delete travel destinations.
- **Lodging Management:** Manage accommodation options (name, type, address, rating).
- **Transport Management:** Maintain and assign transport methods to tours.
- **Tour Management:** Combine locations, lodging, and transport into customizable tour plans.
- **Booking Overview:** Track customer bookings, monitor ticket sales, and analyze booking patterns.

#### Customer Module

- **Registration/Login:** User authentication for accessing booking features.
- **Tour Exploration:** Browse available tours with filters (location, lodging, price, transport).
- **Tour Booking:** Book tours with ticket availability checks, payment integration, and booking confirmation.

## 2. Functional Modules

### Authentication & Role Management

- OAuth2 with Spring Security for secure authentication.
- JWT-based session management for admins and customers.

### Location, Lodging, Transport, and Tour Modules

- CRUD operations for managing entities involved in tour planning.
- Seamless integration between modules for end-to-end tour creation.

### Tour Booking Workflow

- User Registration/Login
- Tour Browsing with Filters
- Tour Selection and Ticket Availability Check
- Secure Payment Processing (Stripe Integration)
- Booking Confirmation and Admin Monitoring

### Technology Stack

<b>Backend</b>	Spring Boot, Spring MVC, Spring Security, OAuth2, Spring JPA, Hibernate, Lombok
<b>Frontend</b>	React.js, Redux, React Router, Tailwind CSS, JavaScript
<b>Database</b>	PostgreSQL
<b>Cloud &amp; Media</b>	Cloudinary
<b>Payment Gateway</b>	Stripe
<b>Version Control</b>	Git, GitHub
<b>API &amp; Testing Tools</b>	Swagger, Postman