

Project Design Phase
Proposed Solution

Date	15 June 2025
Team ID	LTVIP2025TMID60279
Project Name	FlightFinder: Navigating Your Air Travel Options
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Users face difficulty in booking flights conveniently with real-time availability, personalization, and a user-friendly interface, especially across different roles like admins and travelers.
2.	Idea / Solution description	The solution is a full-stack MERN-based flight booking app that provides real-time search and filtering, secure user registration/login, seat booking, admin control over flights, and booking history with confirmation.
3.	Novelty / Uniqueness	Combines real-time flight listings, role-based dashboards, booking overview, RESTful API support, and future-ready enhancements like payment integration and predictive search—all in one lightweight and scalable web platform.
4.	Social Impact / Customer Satisfaction	Enables travelers to book and manage flights easily, improving convenience and confidence in digital travel. Admins benefit from improved operational control and transparency.
5.	Business Model (Revenue Model)	Revenue can be generated through commission on bookings, airline partnerships, targeted ads, premium user services (e.g., seat selection, early access), and payment gateway integrations like Stripe/Razorpay.
6.	Scalability of the Solution	The application is built on scalable technologies (MERN stack), with REST APIs and modular design, allowing easy addition of features like multi-city bookings, analytics dashboards, and international flight support.

SB Flights is a next-generation flight booking web application designed to simplify and enhance the experience for travelers and flight administrators alike. It addresses common pain points in the travel booking ecosystem by introducing a seamless, intuitive, and highly efficient digital solution. Users can search, filter, and book flights based on various criteria such as destination, departure time, and class. Each listing is paired with detailed information, including available amenities and seating. Upon booking, users receive instant confirmations and can manage their trips via a personal dashboard that shows current and past bookings.

For administrators, SB Flights offers a dedicated admin dashboard that facilitates comprehensive control over flight listings, booking management, and user monitoring. Admins can add or edit flights, view booking trends, and maintain system integrity through role-based access controls. Built using the MERN stack—MongoDB, Express, React, and Node.js—the platform is robust, secure, and scalable.

The system is structured around clear frontend/backend responsibilities, API endpoints, and a well-designed database schema to support users, bookings, and flight data. It also offers ER-diagram-based architecture for better data management. With real-time booking, personalized user flows, and scalable microservice-ready design, SB Flights is ideal for modern travel operators looking to digitalize their services and deliver an exceptional customer experience.