

Software Requirements Specification Document

Skysail - Air Travel website

Group - 10

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1. Project Summary

1.1. Project Overview

The Skysail - air travel website is a web application designed to provide a seamless flight booking experience. Built using React 18, Vite, styled-components, and Framer Motion, it offers a premium airline aesthetic with smooth animations and a responsive design. The system enables passengers to search for flights, select flights, enter passenger details, choose seats, and receive digital boarding passes. Administrators can manage airports, airplanes, flights, crew, and passenger bookings through a secure dashboard with dedicated sections. The application includes informational pages (About Us, Baggage Allowance, Privacy Policy, Terms and Conditions) accessible via the footer, enhancing user trust and transparency. The application uses a database for development, ensuring scalability and ease of maintenance.

1.2. Project Scope

The Skysail web application provides a secure, user-friendly platform for passengers and administrators with the following features:

- **Passenger Features:** A 5-step booking flow to search flights, select flights, enter passenger details, choose seats, and view digital boarding passes along with an option to download their ticket.
- **Admin Features:** Manage airports, airplanes, flight schedules, crew assignments, and passenger bookings with list, add, edit, and delete functionalities.

- **UI/UX:** Mobile-first responsive design with Aviation Blue (#1A365D), Sky Blue (#0A66C2), and white/grey shades, featuring smooth gradients, modern shadows, and Framer Motion animations.
- **Constraints:** The system does not include payment gateway or real-time flight tracking .

2. General Description

1. Product Functions Overview

The Skysail Flight Booking System supports the following key functionalities:

- **Home Page:** Displays a hero banner, popular destinations, and service cards.
- **Flight Booking Flow:**
 - **Step 1:** Flight search form with trip type, airports, dates, class, and passenger count.
 - **Step 2:** Search results with sortable flight cards and skeleton loading.
 - **Step 3:** Passenger details form(s) for name, gender, mobile number, email , nationality and Passport number(Optional) .
 - **Step 4:** Interactive seat map for selecting window, middle, or aisle seats.
 - **Step 5:** Digital boarding pass with flight details, and download option for the ticket.
- **Contact Page:** Contact form and support information (toll-free number, email) along with a few common FAQ's .
- **Admin Dashboard:** Admin can login to the dashboard . Dashboard has dedicated sections for managing airports, airplanes, flight schedules, crew, and passengers with a home dashboard. CRUD operations are validated to access the Database.
- **Reusable Components:** Navbar with hamburger menu and Footer

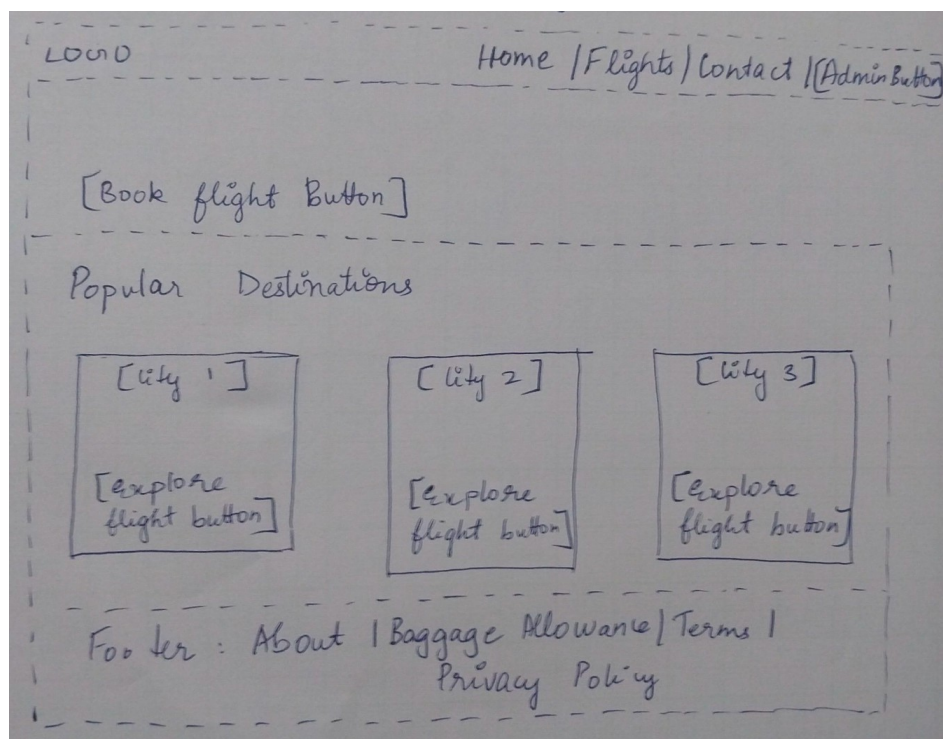
2. Types of Users/Actors

1. **Passenger:**
 - Searches and books flights through the 5-step flow.
2. **Admin:**
 - Logs in with static credentials and has access to manage airports, airplanes, flights, crew, and passenger data.

3. Technical Requirements

- **Frontend:** React 18, Vite, React Router v6, styled-components & Framer Motion.
- **Backend :** PostgreSQL + Node.js
- **Tools Used:** Express.js, PostgreSQL, VS Code
- **Architecture:** Component-based with reusable Navbar and Footer components.
- **Design:** Mobile-first, responsive design with Aviation Blue (#1A365D), Sky Blue (#0A66C2), and white/grey shades.
- **Animations:** Framer Motion for page transitions, hover effects, and card interactions.
- **Data:** A relational database for production.
- **Browser Compatibility:** Chrome, Firefox, Safari, Edge (latest versions).

4. User Interface (visual layout of the elements)



Home Page UI

10000 Home | Flights | Contacts | Admin

[① Search] [② Select flight] [③ Passenger Details] [④ Seat selection]
[⑤ Confirmation]

Find Your Perfect flight
[One Way Button] [Round Trip button]

From

To

Departure Date

Passengers

Class

Footer : About Us | Baggage Allowance | Terms and conditions |
Privacy Policy

BookingFlow UI (has 5 steps)

Logo Home / Flights / Contact / Admin

[We are here to assist you with any inquiries. Please reach out to us using the information below or fill out the contact form.]

Contact Information.

[Phone]

[Email]

[Address]

Contact form

[Name]

[Email]

[Subject]

[Message]

FAQ.

[]

[]

[]

ContactPage UI

Logo

[Dashboard]

[Airports]

[Airplane]

[Flights]

[Crew]

[Passengers]

[Total airports]

[Airplanes]

[Flights today]

[Crew members]

[Tickets sold]

AdminDashboard UI

The Skysail Flight Booking System features a premium, modern UI with the following key screens:

- **Home Page:** Hero banner with aviation-themed visuals, popular destinations grid and service cards.
- **Flight Search Form:** Choosing trip type, Entering Airport names, dropdowns for passengers, calendar for dates, and class selector.
- **Search Results:** Card-based flight listings based on details entered in search form.
- **Select Flight:** Accordion-style forms for passenger details.
- **Seat Map:** Interactive layout with seat type indicators, featuring a gradient overlay.
- **Confirmation Page:** Digital boarding pass with flight details, and PDF download button.
- **Contact Page:** Includes Contact information, Contact form and common FAQ's.
- **Admin Login:** Minimal form with username and password fields.(static)
- **HomeDashboard:** Displays homepage analytics and key metrics.
- **AirportManager:** Manages airport information.
- **AirplaneManager:** Manages airplane details.
- **FlightScheduleManager:** Handles flight schedules.
- **CrewManager:** Manages crew information.
- **PassengerManager:** Oversees passenger records.
- **Navbar:** Logo on left, links (Home, Flights, Contact, Admin[button]) on right.
- **Footer:** Quick links , support links (About Us, Baggage Allowance, Terms, Privacy), and social media icons.

Team members and their Contribution:

Team Member	Frontend	Backend
Ashrith Reddy	Homepage, Navbar & Footer	Database design & Authorization
Meera Eugil	UI Design & Animations	Seat Map API & UI Configuration Support
Sandhiya Kennedy	Contact Page & Support Pages	Database Connectivity & Admin API(CRUD)
Akshay Reddy	Booking Flow & Admin Dashboard	Flight Booking APIs & Booking Logic