

Project Description: Flight Booking System

This is a travel booking web app developed in React.js.

It provides the user a clean, simple and hassle-free interface to search, compare and book flights from one destination to another.

Our project's primary objective is to ensure a seamless and user-friendly booking system that allows users to:

Select departure and arrival locations

Select travel dates and flight reservations type

See flight options with information like price, travel time and airline

Complete the booking process seamlessly

In future releases, the platform will integrate hotel booking as well, to become a centralized destination for users to book both flights and hotels – offering everything they need to plan their trip.

Team Members & Roles

The following table outlines the team members and their respective roles in the **Flight Booking System** project:

Member	Role	Responsibilities
1. Yousef Sabry Afify Elbehwashy	Team Leader / Project Coordinator	Responsible for task distribution, progress tracking, GitHub management, and final review of code and UI components.
2. Alaa Abdelkawy Farghaley Kroush	UI/UX Implementation Developer	Converts the Figma design into responsive React components (Navbar, Footer, Layouts, Home Page) using Tailwind CSS or Styled Components.
3. Nada Sherif Taboor	Flight Search & Filter Developer	Builds the flight search functionality (From – To – Dates – Passengers) and implements filtering options for results (price, airline, duration).
4. Abdallah Ayman Abdallah Refae	Booking & Form Developer	Develops the booking form and flight details page, handling data validation and user input logic.
5. Hussian Sami Abdelalem Mehels	State Management & Logic Developer	Manages global state using React Context or Redux, handles data flow between components, and ensures consistency across the app.
6. Mahmoud Salah Said Abdelrazek	Integration & Testing Developer	Integrates all project modules, performs unit and integration testing (Jest / React Testing Library), and ensures app performance and stability.

Team leader:

Yousef Sabry Afify Elbehwashy

Objectives:

The main goals of the **Flight Booking System** project are to:

1. **Provide a seamless user experience** by designing an intuitive and responsive interface for searching and booking flights easily.
2. **Enable efficient flight search** by allowing users to select departure and arrival destinations, travel dates, and reservation types.
3. **Offer detailed flight comparisons** including price, travel duration, and airline information to help users make informed decisions.
4. **Simplify the booking process** with a smooth, step-by-step workflow from search to confirmation.
5. **Ensure reliability and performance** by building a robust, fast, and secure React-based web application.
6. **Plan for scalability** by laying the foundation for future features such as hotel booking and trip package integration.

Category Tools / Technologies:

Frontend Framework React.js

Styling & UI CSS, Styled Components, bootstrap

Routing React Router DOM

State Management React Context API / Redux Toolkit

Design Tools Figma, Canva

Version Control Git, GitHub

APIs & Data Handling Axios / Fetch API

Testing Jest, React Testing Library

Milestones & Deadlines

The following milestones outline the key phases of the Flight Booking System project, along with their respective deadlines:

Milestone	Description	Deadline
1. Project Proposal Submission	Submit the project idea and implementation plan to DEPI for approval.	October 12, 2025
2. UI/UX Design	Design the main pages (Home, Search, Booking) using Figma to define the user flow and layout.	October 18, 2025
3. Frontend Development – Phase 1	Build the main React components and routing structure (Navbar, Home, Search Form).	October 30, 2025
4. Frontend Development – Phase 2	Complete the booking and results pages, handle flight data, and enhance interactivity.	November 10, 2025
5. Integration & Testing	Integrate all components, fix bugs, and perform functional and usability testing.	November 20, 2025
6. Final Review & Submission	Finalize UI, prepare documentation, and submit the completed project.	November 25, 2025

KPIs (Key Performance Indicators)

1. Code Quality & Development

Clean and organized code.

Components can be reused in different parts of the project.

The app runs without major bugs or errors.

2. Performance & Optimization

The website loads quickly.

Flight search results appear fast.

No lags or delays when navigating between pages.

3. User Experience (UX)

The design works well on phones, tablets, and computers.

Easy and clear navigation for users.

Simple, attractive, and responsive interface.

4. Deployment & Scalability

The app is successfully deployed online (e.g., Vercel or Netlify).

The website stays available (no downtime).

Can be updated later to add hotel booking or other features.

5. Business & Functional Impact

All main features (search, booking, etc.) work correctly.

Users can complete a full booking easily.

Bugs are fixed quickly when found.