Project Design Phase-II Solution Requirements (Functional & Non-functional)

Date	26th June 2025
Team ID	LTVIP2025TMID59290
Project Name	FlightFinder
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form
		Registration through Gmail
		Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email
		Confirmation via OTP
FR-3	Flight Browsing & Search	Browse Flights by Date & Route
		Search by Airline or Flight No.
		Filter by Price, Time, or Duration
FR-4	Booking & Checkout	Select Flight & Seat
		Add Passenger Details
		Make Payment (e.g., Razorpay/Stripe)
		Receive Booking Confirmation Email
FR-5	Wishlist (Optional/Future Scope)	Add Flight to Wishlist
		View Wishlist
		Remove Flight from Wishlist

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The platform will offer a responsive and intuitive
		interface using React-Bootstrap for both desktop
		and mobile devices to maximize ease of use and
		user satisfaction.
NFR-2	Security	Authentication will be managed using JWT tokens;
		passwords are secured with bcrypt. HTTPS will be
		enforced, and API endpoints protected. File uploads
		(e.g., ID proofs) will be secured with Multer.
NFR-3	Reliability	The system will provide stable performance with
		error handling, request retries, and MongoDB
		replica sets/backups to ensure data availability and
		durability.

NFR-4	Performance	The application will support at least 500 concurrent users with response times under 2 seconds, leveraging backend optimizations, caching (Redis), and potential CDN for static assets.
NFR-5	Availability	99.9% uptime is ensured through proper server monitoring, health checks, and deployment across multiple availability zones.
NFR-6	Scalability	The backend is built on a scalable Node.js + Express architecture, with MongoDB designed for horizontal scaling and service modularization.