

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

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|---------------|----------------------------|
| Date | 28 th June 2025 |
| Team ID | LTVIP2025TMID49682 |
| 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 |
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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. |

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|-------|---------------------|---|
| 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. |