
Solution Requirements

****Team ID:**** LTVIP2025TMID49881

****Project Name:**** *Flight Finder: Navigating Your Air Travel Options*

****Maximum Marks:**** 4 Marks

Functional Requirements

These are the core features the system ****must**** provide to meet user needs:

1. ****Flight Search & Filtering****

- * Users can search for flights based on ****source, destination, date, and number of passengers****.

- * Support for ****one-way, round-trip, and multi-city flights****.

- * Filter results by ****price, airline, duration, number of stops, and departure time****.

2. ****Real-Time Flight Data Integration****

- * Fetch live flight availability and pricing through airline APIs or third-party providers.

- * Automatic updates for ****price changes, delays, and cancellations****.

3. ****User Authentication & Profile Management****

- * Secure ****user registration & login**** (email or social login).

- * Save ****preferences, past searches, and booking history****.

4. ****Booking & Payment Integration****

- * Redirect or integrate with airlines for ****ticket booking****.

- * Provide ****secure payment gateways**** (UPI, credit/debit card, net banking).

5. ****Price Alerts & Notifications****

- * Allow users to set ****price alerts**** for specific routes.

- * Send ****email/app notifications**** about deals, discounts, or flight changes.

6. ****Multi-Language & Currency Support****

- * Show flight details in **different currencies & languages**.

7. **Support & Help Center**

- * Provide **FAQs, chatbot assistance, or customer support**.

2 Non-Functional Requirements

These define **quality attributes** of the system:

1. **Performance & Scalability**

- * The system should handle **high traffic** during peak booking times.
- * Flight search results should load **within 2–3 seconds**.

2. **Security & Privacy**

- * Follow **secure authentication protocols (OAuth 2.0)**.
- * Encrypt sensitive data like **payment & user details (SSL/TLS)**.
- * Ensure **GDPR compliance** for data privacy.

3. **Availability & Reliability**

- * **99.9% uptime guarantee** with **automatic failover**.
- * Regular **data backups** for recovery in case of system failure.

4. **Usability & Accessibility**

- * Simple, **user-friendly interface** with responsive design for mobile & desktop.
- * Support **WCAG accessibility standards** for all users.

5. **Maintainability & Extensibility**

- * Modular architecture to easily add **new airlines, routes, or features**.
- * Well-documented **API integration & codebase**.

6. **Compatibility**

- * Cross-platform support for **web, Android, and iOS**.
- * Works with major browsers (**Chrome, Safari, Firefox, Edge**).
