

Requirement Gathering and Analysis Phase

Solution Architecture

Date	2-7-24
Team ID	SWTID1720166168
Project Name	Journify
Maximum Marks	

Solution Architecture for Journify:

1. User Interface (UI) Layer

- **Web and Mobile Applications:**
 - Technologies: React Native (for mobile), React.js (for web), HTML, CSS.
 - Purpose: Provides user-friendly interfaces for searching flights, booking, and managing reservations.

2. API Layer

- **RESTful APIs:**
 - Technologies: Node.js, Express.js.
 - Purpose: Facilitates communication between the front-end and back-end, handles user requests, and returns responses.

3. Business Logic Layer

- **Components:**
 - **Search Service:** Handles flight searches based on user preferences.
 - **Booking Service:** Manages the booking process, seat selection, and payment processing.
 - **User Service:** Manages user accounts, authentication, and profile data.
 - **Admin Service:** Handles admin tasks like managing flights, services, and monitoring user activity.

4. Data Layer

- **Databases:**
 - Technologies: MongoDB (SQL for transactional data).
 - Purpose: Stores all data related to users, flights, bookings, payments, and admin activities.

5. Integration Layer

- **External API Integrations:**
 - Technologies: Context API
 - Purpose: Connects with external services such as airlines, payment gateways, and third-party travel services.

6. DevOps and Deployment

- **Continuous Integration/Continuous Deployment (CI/CD):**
 - Technologies: GitHub Actions.

- Purpose: Automates the build, testing, and deployment processes to ensure reliable updates and scaling.