Voyage Business Case Document

Buisness Case Document:
Project Name: Voyage
Owner: Rohan Deo
Date: 10 Jan 2025

Why is this project initiated?

The airline industry is vast and encompasses a wide range of businesses. Air travel is the preferred mode of transportation for those seeking to minimize travel time. However, travelers face several challenges, such as:

1. **Flight Search Complexity**: Users spend considerable time searching for flights.
2. **Lengthy Queues**: Long waiting times for ticketing and check-in.
3. **High Costs**: Additional expenses incurred through travel agents.
4. **Language Barriers**: Difficulty booking flights in different languages.
5. **Limited Payment Options**: Lack of preferred payment methods during booking.

To address these issues, **Voyage**, an online booking engine, is being developed to provide a seamless user experience. The platform will:

- Simplify the flight booking process.
- Offer multilingual support to resolve language barriers.
- Include various payment options for user convenience.
- Reduce check-in wait times through online services.

The airline industry represents a significant revenue opportunity, and this platform will allow the organization to capitalize on it. With integrations like Sabre and Amadeus already in place, rapid development is feasible. Once the framework is established, new client applications can be launched within three months—far quicker than competitors—positioning the organization as an industry leader and enhancing its brand.

Current Problems in the Airline Industry

The airline industry faces several key issues that affect both travelers and service providers:

- **High Fares Due to Middlemen**: Intermediary bookings lead to extra costs.
- **Unresponsive Applications**: Current platforms are not user-friendly.
- **Delayed Flight Updates**: Passengers often miss timely status changes.

- **Lack of Fare Insights**: Users can’t compare fares for nearby dates.
- **No Timely Notifications**: Important flight updates are often missed.
- **Language Barriers**: Limited multilingual support increases reliance on others.
- **Restricted Payment Options**: Preferred payment methods are unavailable.
- **Rescheduling Issues**: Rescheduling or cancellations are cumbersome.
- **Dependency on Agents**: Adds unnecessary costs and inefficiencies.

What Problems can b solve with this project

The *Voyage* project addresses key airline industry challenges to enhance user experience and streamline booking:

- **Lower Costs**: Direct online bookings eliminate middlemen.
- **User-Friendly App**: Fast and responsive for smooth navigation.
- **Real-Time Updates**: Timely flight status notifications.
- **Fare Insights**: View fare trends for better decisions.
- **Automated Alerts**: Receive reminders and schedule updates.
- **Multilingual Support**: Simplifies booking for all users.
- **Flexible Payments**: Offers diverse payment options.
- **Easy Rescheduling**: Simplified flight changes or cancellations.
- **Online Check-In**: Reduces airport queue times.
- **Brand Growth**: Establishes leadership through efficient solutions.

what are the resources required?
PEOPLE:
Project Manager: To oversee project timelines, budgets, and deliverables.
Business Analyst: To gather requirements and ensure the platform meets business and user needs.
UI/UX Designer: To design an intuitive, user-friendly interface.
Software Developers:
Frontend Developers (e.g., React, Angular,)
Backend Developers (e.g., Java, Python, Node.js)
Mobile App Developers: For iOS and Android app development.
QA Engineers: To test the platform and ensure bug-free performance.
DevOps Engineers: To manage deployment, CI/CD pipelines, and server infrastructure.
Customer Support Team: To assist users post-launch.

Technology

- **Frontend**: React, Angular, or Vue.js.
- **Backend**: Java (Spring Boot), Python (Django/Flask), or Node.js.
- **Mobile Development**: Flutter, React Native, or Swift/Kotlin.
- **Database**: MySQL, PostgreSQL, or MongoDB.

- **Cloud Infrastructure**: AWS, Microsoft Azure, or Google Cloud Platform.
- **APIs and Integrations**: Sabre, Amadeus, and payment gateways (e.g., PayPal, Stripe, Razorpay).
- **Notification Services**: Firebase, Twilio, or OneSignal for alerts and reminders.
- Servers for hosting the platform (on-premises or cloud-based).
- Devices for testing (smartphones, tablets, desktops, etc.).
- **Third-Party Services**: Payment gateways, language translation APIs, and analytics tools.

what is the time frame to recover the ROI

Assuming operational profitability begins within **6–12 months of launch**, the platform can potentially recover the initial investment within **1.5 to 3 years**.

Total Initial Investment: Approximately **800,000 to 1,500,000**.

Estimated Annual Revenue: **2,500,000**.

How to identify the stakeholders
Identifying the stakeholders is crucial to ensure the project's success, as they can influence or be affected by the project's outcome. Stakeholders can be divided into the following categories and this will be managed with the help of RACI metric throughout the life cycle of the project.

Internal Stakeholders:

1. **Internal Stakeholders**:
   Individuals or groups within the organization.
   - **Project Sponsor**: Provides funding and strategic direction.
   - **Project Team Members**: Developers, testers, designers.
   - **Management**: Department heads or executives overseeing the project.
   - **Operations Team**: Responsible for maintaining the platform post-launch.
2. **External Stakeholders**:
   Individuals or entities outside the organization.
   - **End Users**: Travelers using the application to book flights.
   - **Airlines and Partners**: Businesses providing flight data and ticketing services.
   - **Government and Regulatory Bodies**: Ensuring compliance with aviation and data protection laws.
   - **Vendors and Service Providers**: Offering integrations (e.g., payment gateways, Sabre, Amadeus).

3. **Key Influencers**:
   Those who can influence the project's success indirectly.
   - **Investors**: Interested in financial returns.
   - **Industry Experts**: Offering insights into market trends and customer needs.
   - **Competitors**: Their actions may indirectly affect project decisions.

R - Responsible Responsible for creating this document.
A - Accountable Accountable for the accuracy of this document
C Consulted Provides input (such as an interviewee).
I - Informed Must be informed of any changes.

RACI MATRIX - To show in which state which stakeholder is responsible or accountable or consulted or informed.

Steps	Sponsor	Users	Finacial Advisor	Project Coordinator	Delivery Head	Developers	Network admin	DBadmin	tester	BA	project manager
Buisness initiation	R	C	C	-	C	-	-	-	-	-	-
Requirement gathering	A	C	I	C	I	I	I	I	I	R	C
Requirement analysis	C	C	I	I	I	I	I	I	I	R	C
Requirement Documentaion	I	I	I	I	I	I	I	I	I	R	I
Project plan	C	I	C	A	I	I	I	I	I	A	R
Developmnet	I	I	A	I	I	R	R	R	I	C	A
Testing	I	C	I	I	I	C	C	C	R	C	A
Deployment	A	I	I	I	I	R	R	R	R	C	A
maintainace	I	C	I	I	I	R	R	R	C	C	A

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Business Analyst Strategy for the Voyage Project

Buisness Case Document:
Project Name: Voyage
Owner: Rohan Deo
Date: 10 Jan 2025

Understand the Project Scope and Objectives

- **Goal**: To develop an online booking platform for the airline industry that offers seamless booking, multilingual support, multiple payment options, and real-time flight updates.
- **Scope**: Includes booking tickets, fare comparisons, rescheduling, cancellations, notifications, and reducing dependency on middlemen.

Understand the stakeholders for projects

- Identify stakeholders: Project sponsor, end users, airlines, travel agents, regulatory bodies, and development team.
- Conduct stakeholder interviews, surveys, and workshops to gather requirements.
- Establish a clear communication plan to keep stakeholders informed throughout the project lifecycle.

What elicitation techniques to apply

- Use techniques like:
    - **Interviews**: With airlines and end users to understand pain points.
    - **Workshops**: To brainstorm features and priorities.
    - **Prototyping**: Once we understand the flow we will create the mockups to validate the requirement
    - **Use case specification**: We will understand the flow and from that create the use case diagram and create the use case specification which will outline the description, basic flow, and assumptions of the requirement.
    - **JAD session**: Stakeholders will come together and discuss on design and work on the development.

What Documents to write:

Requirement Analysis and Prioritization

- Create the **BRD**
- Use techniques like MoSCoW (Must have, Should have, Could have, Won't have) to prioritize requirements.
- Add the Use cases and activity diagrams to understand the flow.
- Identify dependencies, risks, and conflicts in requirements.
- Create a Requirement Traceability Matrix (RTM) to ensure all requirements are met during development.

Solution Design Collaboration

- Work closely with UI/UX designers for mock-ups and prototyping and collaborate with developers to understand the challenges. Create the System requirement specification document.
- Develop wireframes and prototypes to visualize the platform.
- Conduct stakeholder reviews to gather feedback and ensure alignment.
- Perform usability testing with end users to validate the design and flow.

Development

- Before development make sure developers understand the requirement and for that give the walkthrough to the team.
- Create the query log and resolve all the doubts regarding the requirement
- Create the Functional and Non-functional documents

Testing

- Assist the QA team in developing test cases based on requirements.
- Conduct User Acceptance Testing (UAT) to ensure the platform meets business and user expectations.
- Validate the test results
- Provide the review of test cases
- Triage the bugs and provide priority

How to Handle Change Requests

- Ensure all changes are evaluated for impact, documented, and approved by stakeholders. Update requirements and traceability matrix as necessary.

How to update the progress of the project to the Stakeholder

- Provide regular updates to stakeholders through reports and review meetings.
- Use dashboards to track project progress, milestones, and risks.

What process to follow to Sign off on the Documents, Howtotake Approvals from the Client, What Communication Channels to establish n implement

Once we create these documents this is important to get these documents reviewed and signed off by the client by email.

To get the approvals from clients formal meetings at regular intervals have to be scheduled with clients for progress and feedback. This can be done via email, slack, zoom, Meet, agreed communication channels

Post-Implementation Support and Analysis

- Monitor the platform's performance post-launch to ensure it meets business goals.
- Collect user feedback for continuous improvement.
- Conduct a benefits realization analysis to evaluate ROI and project success.

Tools and Techniques

- **Tools**: JIRA, Confluence, Trello, Figma, MS Office Suite.
- **Techniques**: SWOT analysis, Stakeholder Analysis, MoSCoW prioritization, RTM, Wireframing, UAT.

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Voyage Functional Specifications

Buisness Case Document:
Project Name: Voyage
Owner: Rohan Deo
Date: 10 Jan 2025

Project name	Voyage
Customer name	PAL
Project Version	1.0
Project Sponsor	Kristian Gerald
Project Manager	Mrunal Thaware
Project Initiation date	10-Jan-2025

Functional Requirement specifications:

Req ID	Req Name	Req Description	Priority

FR-001	User Registration and Login	The system shall allow users to register and log in securely using email, phone, or social media.	High
FR-002	Flight Search	The system shall allow users to search for flights based on origin, destination, and travel dates.	High
FR-003	Flight Booking	The system shall enable users to book flights and receive booking confirmation.	High
FR-004	Fare Comparison	The system shall display fare trends for the next and previous five days for cost-effective booking.	Medium
FR-005	Real-Time Flight Updates	The system shall provide real-time flight status updates, including delays or cancellations.	High
FR-006	Notifications	The system shall send notifications for booking confirmation, flight updates, and reminders.	High
FR-007	Multilingual Support	The system shall support multiple languages to cater to diverse users globally.	High
FR-008	Payment Integration	The system shall support various payment methods, including credit cards, wallets, and UPI.	High
FR-009	Rescheduling Flights	The system shall allow users to reschedule their flights directly through the application.	Medium
FR-010	Flight Cancellation	The system shall allow users to cancel booked flights and receive applicable refunds.	Medium
FR-011	User Profile Management	The system shall enable users to manage their personal and travel preferences in their profile.	Medium
FR-012	Customer Support	The system shall provide in-app customer support for resolving user queries and issues.	Medium

FR-013	Online Check-In	The system shall allow users to check in online and download their boarding passes.	High
FR-014	Rewards and Loyalty Program	The system shall provide a rewards program for frequent users to earn points and discounts.	Low
FR-015	Feedback and Ratings	The system shall allow users to provide feedback and rate their booking experience.	Low
FR-016	Multiple Currency Support	The system shall support transactions in multiple currencies to accommodate users from different countries.	High
FR-017	Save Payment Methods	The system shall allow users to save preferred payment methods for quicker transactions.	Medium
FR-018	Split Payment Option	The system shall allow users to split payments across multiple payment methods (e.g., card + wallet).	Low
FR-019	EMI Payment Option	The system shall provide an EMI (Equated Monthly Installment) option for eligible credit card users.	Medium
FR-020	Secure Payment Gateway	The system shall ensure all payments are processed through a secure and PCI-compliant payment gateway.	High
FR-021	Payment Failure Retry	The system shall allow users to retry a failed payment without restarting the booking process.	High
FR-022	Payment Confirmation	The system shall send a confirmation message and receipt to the user after a successful payment.	High
FR-023	Refund Processing	The system shall automatically process refunds for canceled bookings as per the applicable policies.	Medium

FR-024	Discounts and Promo Codes	The system shall allow users to apply promo codes or discounts during the payment process.	Medium
FR-025	Invoice Generation	The system shall generate and send an electronic invoice for every completed transaction.	Medium

Voyage Requirement Traceability Matrix

Requirement Traceability Matrix

Project Name: Voyage
Owner: Rohan Deo
Date: 10 Jan 2025
Version: 1.0

Req ID	Req Name	Design	D1	T1	D2	T2	UAT
FR-001	User Registration and Login	Yes	Pending	No	Yes	Yes	YES
FR-002	Flight Search	Yes	Pending	No	Yes	Yes	YES
FR-003	Flight Booking	Yes	Pending	No	Yes	Yes	YES
FR-004	Fare Comparison	Yes	Pending	No	Yes	Yes	YES
FR-005	Real-Time Flight Updates	Yes	Pending	No	Yes	Yes	YES
FR-006	Notifications	Yes	Pending	No	Yes	Yes	YES
FR-007	Multilingual Support	Yes	Pending	No	Yes	Yes	YES

FR-008	Payment Integration	Yes	Pending	No	Yes	Yes	YES
FR-009	Rescheduling Flights	Yes	Pending	No	Yes	Yes	YES
FR-010	Flight Cancellation	Yes	Pending	No	Yes	Yes	YES
FR-011	User Profile Management	Yes	Pending	No	Yes	Yes	YES
FR-012	Customer Support	Yes	Pending	No	Yes	Yes	YES
FR-013	Online Check-In	Yes	Pending	No	Yes	Yes	YES
FR-014	Rewards and Loyalty Program	Yes	Pending	No	Yes	Yes	YES
FR-015	Feedback and Ratings	Yes	Pending	No	Yes	Yes	YES
FR-016	Multiple Currency Support	Yes	Pending	No	Yes	Yes	YES
FR-017	Save Payment Methods	Yes	Pending	No	Yes	Yes	YES
FR-018	Split Payment Option	Yes	Pending	No	Yes	Yes	YES
FR-019	EMI Payment Option	Yes	Pending	No	Yes	Yes	YES
FR-020	Secure Payment Gateway	Yes	Pending	No	Yes	Yes	YES
FR-021	Payment Failure Retry	Yes	Pending	No	Yes	Yes	YES
FR-022	Payment Confirmation	Yes	Pending	No	Yes	Yes	YES

FR-023	Refund Processing	Yes	Pending	No	Yes	Yes	YES
FR-024	Discounts and Promo Codes	Yes	Pending	No	Yes	Yes	YES
FR-025	Invoice Generation	Yes	Pending	No	Yes	Yes	YES

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Voyage Buisness Requirement Douemnt

Contents 1. Document

1. Document Revisions

Date	Version	Document Changes
10-jan-2025	1.0	Initial Draft

2. Approvals

Role Name	Title	Signature	Date
Project Sponsor	John Doe	[Signature]	10/01/2025
Business Owner	Jane Smith	[Signature]	10/01/2025
Project Manager	Michael Johnson	[Signature]	10/01/2025
System Architect	Sarah Williams	[Signature]	10/01/2025
Development Lead	David Brown	[Signature]	10/01/2025
User Experience Lead	Emily Clark	[Signature]	10/01/2025
Quality Lead	Daniel Harris	[Signature]	10/01/2025
Content Lead	Olivia Martinez	[Signature]	10/01/2025

3. RACI Chart for This Document

The RACI chart identifies the persons who need to be contacted whenever changes are made to this document. RACI stands for responsible, accountable, consulted, and informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project.(RACI Can be made for the IT side[Project stakeholder] as mentioned above, apart from that Can also Be made for the Client side[Business Stakeholder]). The following describes the full list of codes used in the table:

Codes Used in RACI Chart * Authorize Has ultimate signing authority for any changes to the document. R Responsible Responsible for creating this document. An Accountable Accountable for the accuracy of this document (for example, the project manager) S Supports Provides supporting services in the production of this document C Consulted Provides input (such as an interviewee). I Informed Must be informed of any changes.

Task/Deliverable	Project Sponsor	Business Owner	Project Manager	System Architect	Development Lead	UX Lead	Quality Lead	Content Lead
Project Planning & Scope Definition	A	C	R	C	C	C	I	I
Requirement Gathering	I	A	R	C	C	C	I	C
System Design & Architecture	I	C	A	R	C	C	I	I

Platform Development	I	C	A	C	R	C	C	I
UI/UX Design	I	C	A	C	C	R	C	I
Integration of Payment Gateways	I	C	A	R	R	C	C	I
Multilingual Support Integration	I	C	A	R	R	C	C	I
Testing and Quality Assurance	I	C	A	C	C	C	R	I
User Acceptance Testing (UAT)	I	A	R	C	C	C	C	C
Deployment & Go Live	I	C	A	C	R	C	C	I
Post-Launch Monitoring & Support	I	C	A	C	R	C	R	I
Marketing and User Communicatio n	I	A	C	C	I	C	I	R
Feedback Collection & Analysis	I	A	C	C	I	C	C	R
Documentation and User Manuals	I	C	C	C	C	C	I	R

4. Introduction

4.1. Business Goals

The primary goal of this project is to develop a comprehensive online booking platform for the airline industry, addressing key challenges faced by travelers and industry stakeholders. The **Voyage** platform will streamline the booking process, reduce dependency on intermediaries, and improve customer satisfaction by offering seamless travel services. Additionally, this project aims to enhance revenue generation for the organization by

providing a competitive edge in the market through fast, reliable, and customer-centric features.

Need:

- To minimize the costs associated with booking through middlemen and agents.
- To provide an efficient and user-friendly platform for flight search, booking, and management.
- To allow travelers to have more control over their booking experience, including rescheduling, cancellations, and payment options.
- To provide real-time updates and alerts regarding flight statuses and booking changes.
- To facilitate global accessibility by supporting multiple languages and payment methods.
- To cater to the growing demand for quick and easy bookings, thereby increasing customer retention and engagement.

4.2. Business Objectives

The objective of this project is to create an integrated, feature-rich IT solution that enhances the travel booking experience and resolves current pain points for both consumers and industry players. The functionalities to be developed in the software are:

1. **User Registration and Login**: Secure user account management for personalized services and preferences.
2. **Flight Search and Booking**: A robust flight search engine that provides users with comprehensive options based on their origin, destination, and preferred travel dates.
3. **Fare Comparison**: A feature that allows users to compare fares for the next and last five days to choose the most cost-effective option.
4. **Real-Time Flight Status Updates**: Display live flight updates for accurate and timely information.
5. **Flight Rescheduling and Cancellations**: Allow users to reschedule or cancel their bookings as per their convenience and in accordance with airline policies.
6. **Multiple Payment Options**: Integration of various payment gateways to offer users flexibility in choosing their preferred payment method.
7. **Multilingual Support**: Cater to international travelers by providing the platform in multiple languages.
8. **Notifications and Alerts**: Send automated notifications to users regarding flight status, booking confirmations, and other important updates.
9. **Rewards and Loyalty Program**: Implement a system to reward frequent travelers with points or discounts to promote customer retention.
10. **User Feedback and Ratings**: Enable users to provide feedback and rate their booking experience for continuous improvement.

4.3. Business Rules [List Organization Policies, Procedures, and Rules& Regulation

The following business rules, policies, procedures, and regulations apply to the **Voyage** online booking platform to ensure compliance, consistency, and smooth operations within the organization and for end-users:

1. Booking and Payment Rules

- **Advance Booking**: Bookings must be made at least 24 hours before the scheduled departure to avoid last-minute disruptions.
- **Payment Confirmation**: The payment will only be considered complete once a confirmation receipt has been generated. No bookings are confirmed until payment is successfully processed.
- **Currency and Payment Methods**: Users are required to choose from the supported currencies and payment methods (credit cards, debit cards, wallets, UPI). Payments must be processed through PCI-DSS compliant payment gateways to ensure security.
- **Refunds and Cancellations**: Refunds are processed based on the airline's cancellation policy. If the flight is canceled by the airline, the user is eligible for a full refund. A cancellation fee may apply based on the time of request.
- **Payment Failure**: If a payment fails, users will be notified and given the opportunity to retry the payment or select another payment method

2. Flight Booking Rules

- **Flight Availability**: Only available flights based on user input (destination, dates, etc.) should be displayed. The platform should not allow booking for unavailable flights.
- **Booking Limits**: Each user is allowed to book up to a maximum of 10 tickets in a single transaction, with further restrictions on bulk bookings if necessary.
- **Booking Modifications**: Changes to bookings (e.g., flight rescheduling) can only be made within the terms of the airline's rules and are subject to an additional processing fee where applicable.

3. User Account Management Rules

- **User Data Privacy**: User data, including personal information and payment details, must be protected in compliance with GDPR or other relevant privacy regulations.
- **Account Lock**: Accounts will be temporarily locked after five failed login attempts to protect against unauthorized access.
- **Profile Updates**: Users can update personal details (name, email, phone number) but must verify any changes to sensitive information (such as payment methods).

4. Multilingual Support

- **Language Preferences**: Users must be able to select their preferred language during account registration or booking. The available languages are based on the regions served by the airline.
- **Accurate Translation**: All content provided in the platform must be accurately translated into all supported languages, ensuring clarity and consistency of information.

5. Notifications and Alerts

- **Booking Confirmation Notification**: Users will receive a booking confirmation via email/SMS once the payment is successfully processed.
- **Flight Status Notifications**: Users must be notified of any changes to flight statuses (delays, cancellations, etc.) 1 hour before departure.
- **Rescheduling and Cancellation Alerts**: Alerts will be sent for any changes made to the user's booking (e.g., rescheduled flight or cancellation).

7. Data Retention and Security

- **Data Retention**: All transactional data, booking details, and payment information must be stored for a minimum of 5 years for auditing and compliance purposes.
- **Data Encryption**: All sensitive data must be encrypted during transmission and storage to prevent unauthorized access or breaches.

8. Compliance with Legal and Regulatory Requirements

- **Consumer Protection**: The platform must comply with consumer protection laws applicable to flight bookings, including offering refunds for canceled flights and honoring promotional offers.
- **Local Regulations**: The platform must adhere to the legal regulations specific to the regions or countries where flights are operated, such as travel restrictions, visa requirements, and insurance coverage.

4.4. Background
[Provide a brief history of how the project came to be proposed and initiated, including the business issues/problems identified, and the expected benefit of implementing the project/developing the product.]

The **Voyage** project was initiated to address the challenges travelers and airlines face in the current booking process. High fares due to middlemen, lack of real-time updates, and limited functionality in existing platforms were key issues identified. Travelers also struggle with language barriers and limited payment options.

Key Issues:

- High fares due to middlemen
- Poor user experience and responsiveness in existing platforms
- Lack of real-time flight status updates
- Language barriers
- Limited payment options

Expected Benefits:

- Lower fares by eliminating middlemen
- Improved user experience with real-time updates and responsive design
- Global accessibility through multilingual support
- More payment options for users

- Increased revenue from better customer engagement

4.5. Project Objective
[These should describe the overall goal in developing the product, high-level descriptions of what the product will do, how they are aligned to business objectives, and the requirements for interaction with other systems]

The **Voyage** project aims to develop an online booking platform that simplifies the booking process, reduces costs, and improves user experience.

Key Features:

- **Flight Search and Booking**: Easy flight search and booking directly on the platform
- **Fare Comparison**: Compare fares for different dates
- **Real-Time Updates**: Live flight status and notifications
- **Multilingual Support**: Multiple language options for international users
- **Flexible Payments**: Multiple payment methods available
- **Booking Management**: Options to reschedule, cancel, and check in online

Alignment with Business Goals:

- **Cost Reduction**: Removing middlemen to lower fares
- **Customer Satisfaction**: Enhanced booking experience and flexibility
- **Global Reach**: Catering to a global audience with multilingual and multi-payment options

4.6. Project Scope
[What we are going to develop in the current project]

In the **Voyage** project, we will develop an online booking platform with:

1. **Flight Search and Booking**: Easy booking without middlemen.
2. **Fare Comparison**: Compare fares for the next and last 5 days.
3. **Real-Time Updates**: Live flight status and notifications.
4. **Multilingual Support**: Multiple languages for global users.
5. **Multiple Payment Options**: Various payment methods (credit cards, UPI, wallets).
6. **Booking Management**: Option to reschedule, cancel, or modify bookings.
7. **Self Check-In**: Online check-in to avoid long queues.
8. Payment integration

These features aim to simplify the booking process, reduce costs, and improve the user experience.

4.6.1. In Scope Functionality

Functionalities to Be Developed in the Project:

- **Flight Search and Booking**: Search and book flights directly on the platform.
- **Fare Comparison**: Compare fares for the next and last 5 days.
- **Real-Time Flight Status**: Provide live updates on flight status (delays, cancellations).
- **Multilingual Support**: Offer multiple languages for a global audience.
- **Multiple Payment Options**: Support credit cards, UPI, wallets, and other payment methods.
- **Payment Confirmation**: Ensure secure and successful payment processing.
- **Booking Management**: Allow users to reschedule, cancel, or modify bookings.
- **Self Check-In**: Enable online check-in to avoid airport queues.
- **Booking Notifications**: Send alerts for confirmations, cancellations, or changes.
- **Rewards and Loyalty Program**: Allow users to earn and redeem points.
- **User Account Management**: Provide secure registration and login for personalized services.

4.6.2. Out Scope Functionality

Functionalities Not Included in the Current Project:

- **In-Depth Customer Support**: No live chat or customer support features within the platform.
- **Third-Party Service Integration**: No integration with external services like hotel bookings, car rentals, or travel insurance.
- **Advanced Travel Packages**: No bundled offers or vacation packages involving flights, hotels, and tours.
- **Multi-Destination Booking**: The ability to book flights with multiple stopovers or complex itineraries.
- **Flight Upgrades**: No functionality for users to bid or request flight upgrades.
- **Advanced Analytics/Reporting for Admins**: No complex reporting or data analytics for tracking bookings or user behavior.
- **Customizable User Profiles**: No advanced profile personalization or customization beyond basic account management.
- **Group Booking**: No support for group bookings or corporate travel management.

5. Assumptions

Assumptions the Requirements Are Based On:

- **Stable Internet**: Users have a reliable internet connection.
- **Digital Payment Access**: Users can use payment methods like cards, UPI, and wallets.
- **Real-Time Data**: Flight data is provided in real-time by airlines.
- **Regulatory Compliance**: Adherence to travel and payment regulations (e.g., GDPR, PCI-DSS).
- **Third-Party Reliability**: Payment gateways and airline integrations are stable.
- **Tech Literacy**: Users have basic knowledge of online booking.

- **Mobile-Optimized**: Platform works well on both desktop and mobile.
- **Scalability**: Platform can handle high traffic, especially during peak seasons.
- **Data Security**: User data is encrypted and stored securely.
- **Multilingual Support**: Accurate translations for major languages.
- **Airline API Availability**: Airlines provide reliable APIs for data integration.
- **Account Ownership**: Users create accounts for bookings and management.

6. Constraints

Time: Must meet the project timeline, limiting initial features.
Budget: Restricted by the allocated budget, impacting technology and resources.
Integration: Dependence on third-party APIs may limit data or cause delays.
Regulations: Must comply with data protection laws (GDPR, PCI-DSS).
Language: Limited to languages supported at launch.
Technology: Technology stack may limit scalability and features.
User Access: Assumes users have necessary devices and digital payment methods.
Airline Partnerships: Dependent on agreements with airlines for flight data.
Adoption: Limited by user willingness to switch platforms.

7. Risks

In this section of the BRD, you describe risks. A risk is something that could affect the success or failure of a project. Analyze risks regularly as the project progresses. While you may not be able to avoid every risk, you can limit each risk's impact on the project by preparing for it beforehand. For each risk, you'll note the likelihood of its occurrence, the cost to the project if it does occur, and the strategy for handling the risk. Strategies include the following: Avoid: Do something to eliminate the risk. Mitigate: Do something to reduce damage if risk materializes. Transfer: Pass the risk up or out to another entity. Accept: Do nothing about the risk. Accept the consequences.

Technological Risks:

- **Integration Issues**: Problems integrating third-party APIs may cause delays.
- **Scalability**: The platform may struggle to handle high traffic.
- **Security**: Potential data breaches could compromise user trust.
- **Compatibility**: The tech stack may not integrate smoothly with existing systems.
- **Data Accuracy**: Reliance on external data sources may lead to errors.

Skills Risks:

- **Skill Gaps**: Lack of expertise in key technologies may cause delays.
- **Team Availability**: Unavailability of critical team members could impact progress.
- **Training Needs**: Insufficient training may lead to inefficiencies or errors.
- **Knowledge Transfer**: Difficulty in transferring knowledge among team members may cause project disruptions.

Political Risks:

- **Regulatory Changes**: New travel or data protection laws could impact project requirements.
- **Government Policies**: Changes in policies may affect partnerships with airlines or payment gateways.
- **Political Instability**: Political unrest in key regions could disrupt operations or market entry.

Business Risks:

- **Market Competition**: Competitors may offer similar solutions, affecting market share.
- **User Adoption**: Low adoption rate could lead to underperformance.
- **Revenue Shortfall**: Insufficient revenue generation due to pricing or market dynamics.
- **Partnership Dependencies**: Reliance on airlines and third-party services may cause delays or issues.

Requirements Risks:

- **Changing Requirements**: Frequent changes in project requirements may lead to delays and scope creep.
- **Ambiguous Requirements**: Unclear or incomplete requirements could result in misalignment with user needs.
- **Miscommunication**: Lack of clear communication between stakeholders and development teams may cause misunderstandings.
- **Overlooked Features**: Key features may be missed or deprioritized, impacting the user experience.

Other Risks:

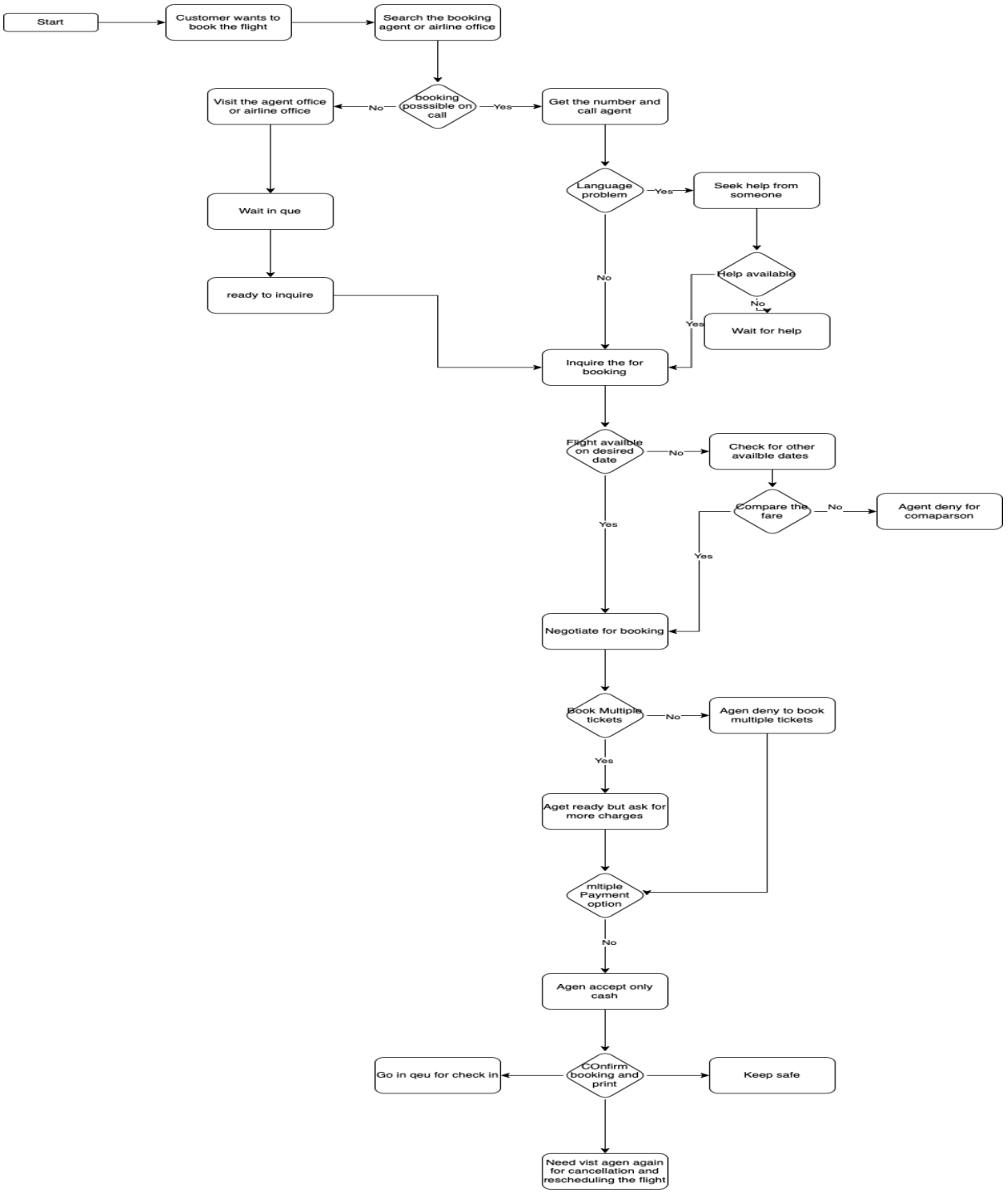
- **Resource Shortages**: Lack of key resources could delay progress.
- **External Dependencies**: Delays from third-party vendors may impact timelines.
- **Reputation**: Negative feedback could harm the platform's reputation.
- **Budget Overruns**: Unexpected costs may exceed the budget.

8. Business Process Overview

The **Voyage** platform simplifies flight booking by allowing users to search for flights, compare fares, and book tickets with multiple payment options. It enables users to manage their bookings, reschedule or cancel flights, and check-in online. The platform provides real-time flight updates, multilingual support, and automated notifications, ensuring a seamless and flexible experience. This solution aims to improve efficiency, reduce reliance on middlemen, and enhance customer satisfaction in the airline industry.

8.1. Legacy System (AS-IS):

The current legacy system for flight bookings is fragmented and heavily reliant on third-party intermediaries. Users must visit multiple platforms or contact agents to search, book, and manage flights. Flight information is often outdated, and booking details may require manual updates. The system lacks real-time updates, multilingual support, and flexible payment options. Customers face difficulty rescheduling, canceling, or modifying bookings, leading to poor user experience. The existing system also struggles with scalability and performance, particularly during high-traffic periods or peak seasons.



8.2. Proposed Recommendations (TO-BE):

The **Voyage** platform will replace the legacy system, offering a fully integrated, user-friendly solution. Key improvements include:

- **Real-Time Data**: Real-time flight status, availability, and booking updates.
- **Seamless Booking**: Direct booking without relying on third-party intermediaries.
- **Multilingual Support**: Cater to a global audience with multiple language options.
- **Flexible Payments**: Provide various payment methods (credit cards, UPI, wallets).
- **Booking Management**: Allow users to reschedule, cancel, or modify bookings online easily.
- **Self Check-In**: Enable online check-in to reduce airport wait times.
- **Enhanced User Experience**: A responsive, mobile-optimized interface for better accessibility and customer satisfaction.

These enhancements will streamline the booking process, improve customer engagement, and increase operational efficiency.

9. Business Requirements

The following business requirements have been elicited from stakeholders and are categorized by priority and area of functionality to ensure smooth tracking and execution:

For detailed requirements refer to the Functional requirement document, below are the requirements required for MVP.

1. Flight Search and Booking

2. Fare Comparison

3. Real-Time Flight Updates

4. Multilingual Support

5. Payment Options

6. Booking Management

7. Self Check-In

8. Notifications and Alert

9. Security and Data Privacy

10.Appendices

10.1. List of Acronyms

API – Application Programming Interface
GDPR – General Data Protection Regulation
PCI-DSS – Payment Card Industry Data Security Standard
UPI – Unified Payments Interface
QA – Quality Assurance
UI – User Interface
UX – User Experience
SaaS – Software as a Service

10.2. Glossary of Terms

Booking: Reserving a flight by selecting dates, times, and payment options.
Payment Gateway: A system that processes payments securely.
Flight Status: Real-time updates on flight schedules, delays, and cancellations.
Multilingual Support: Offering services in multiple languages.
Rescheduling: Changing the date or time of a flight.
Cancellation: The process of canceling a flight booking.
Self Check-In: Checking in online before arriving at the airport.
API: A set of tools for software systems to communicate with each other.
User Interface (UI): The visual layout of the platform.
User Experience (UX): The overall ease of use and functionality of the platform.
Real-Time Data: Continuously updated information.
GDPR: EU regulation for protecting personal data.
API Integration: Connecting external systems with the platform using APIs.
Notification System: Alerts for important events like bookings and flight updates.
Encryption: Securing data to prevent unauthorized access.
Scalability: The platform's ability to handle increased usage.
Payment Options: Methods for paying for bookings, like cards or wallets

10.3. Related Documents

SABRE
Amadeus
Airline
PCI