

Voyage

PROJECT PROPOSAL GUIDELINES

SITUATION

Organisation booking platform or system for airline clients is VOYAGE. One of the frontend application that facilitates the interaction with the voyage platform is voyage web and voyage mobile application which can be available on playstore and application store. This intuitive will help organisation to increase the client base which are embedded with sabre(airlines heart).

Every airline uses the common sabre backend and our organisation has sabre integration ready with us. With organisation APIs frontend application can be easily get developed for any airline client which are on sabre. This will give the seamless booking experience to user start from searching the flights to adding ancillaries and performing the payment.

All the value adds will be provided to the user on the same platform. Web and mobile view design will be provided by the organisation and development will be done on approved GUI.

This will be a frontend application enabling the online booking and booking management. Using JSON services (voyage api) web communication will be done with the voyage backend systems to enable users to make online booking, add ancillaries, select seats, add insurance and purchase an itenary. Voyage will also enables users to view and edit the existing booking.

PROBLEMS

There is no platform in airline industry which provides the all the value adds and variety of services on the same platform.

Some organisation provide only flight booking and not the ancillary addition as they have to integrate with third party services.

No other organisation supports variety of insurance provides which are already integrated in our voyage backend systems and easy to handle.

Easy to customise the GUI design as organisation already have the voyage backend systems available

No one in the market has a capability to provide the integrated payment solution for booking flow.

Data privacy and security is crucial as users sensitive data get used.

OPPORTUNITIES

- Users need all required facilities in the same booking engine.
- Tremendous user base which will convert into more revenue.
- Can provide latest technology applications and user experience which helps to stand organisation at top level as no one is providing it.
- By integrating dynamic pricing, upselling, and cross-selling features, airlines can increase revenue opportunities
- User will get multiple payment methods in booking journey.

PURPOSE STATEMENT

The purpose of developing an airline web and mobile app is to provide a seamless and convenient platform for travelers to book flights, manage their itineraries, and access boarding passes anytime, anywhere. It enhances customer engagement by offering personalized promotions, loyalty programs, and real-time updates, ensuring a smooth travel experience. Additionally, the app improves operational efficiency by streamlining processes such as check-ins, cancellations, and rebookings, thereby reducing manual workload and operational costs. It also boosts the airline's digital presence, helping it stay competitive in the dynamic travel industry. Furthermore, the app enables the collection of valuable customer data, allowing the airline to optimize services and implement targeted marketing strategies effectively.

PROJECT OBJECTIVES

- Offer real-time flight updates, notifications, and travel alerts to keep passengers informed and reduce disruptions.
- Provide a seamless and intuitive interface for booking, managing reservations, and accessing travel information to ensure customer satisfaction and retention.
- Streamline airline processes such as check-ins, seat selection, cancellations, and notifications, reducing reliance on manual intervention and improving operational productivity
- Enable personalized offers, upselling of services like seat upgrades and additional baggage, and integration with loyalty programs to drive revenue growth.
- Strengthen the airline's digital presence and competitive positioning by offering a modern, responsive, and scalable app that reflects the brand's values and commitment to customer service
- Collect and analyze user data to gain insights into customer behavior, preferences, and trends, enabling data-driven decision-making and targeted marketing campaigns

SUCCESS CRITERIA

- High user adoption rates and positive feedback, reflected in customer reviews, ratings, and surveys, indicating a seamless and satisfying user experience.
- More downloads
- Increased percentage of visitors completing bookings through the app, demonstrating the platform's effectiveness in driving sales.
- Reduction in manual processes, shorter check-in times, and streamlined booking management, leading to improved operational metrics.
- High uptime (e.g., 99.9%) and fast loading times for both web and mobile apps, ensuring consistent and efficient user access.
- Increased revenue from ticket sales, ancillary services (e.g., seat upgrades, baggage), and loyalty program engagement, demonstrating financial benefits from the app.
- Full compliance with data protection regulations (e.g., GDPR, PCI DSS) and zero data breaches, ensuring user privacy and security.
- Ability to handle increased user traffic and support additional features or services without compromising performance.
- Positive feedback from key stakeholders, including airline management, operational teams, and partners, ensuring alignment with business goals.

METHODS AND APPROACHES

- This is 1 year project and initially this will be developed for 1 client only as a MVP waterfall method is to be follow.
- The Waterfall Methodology is a sequential software development model where each phase must be completed before the next begins. This approach ensures clarity in requirements and thorough testing at each stage
- Requirements Gathering and Analysis - Stakeholders airline management, IT teams, and customers will be consulted to define clear goals for the app, such as real-time flight updates, smooth booking workflows, and secure payment integration. All business ideas will be discussed and BRD will be created.
- System Design - This phase involves creating the technical architecture, UI/UX wireframes, and data flow diagrams. High-level design will specify the overall system structure, while detailed design will define specific components, such as booking engines, payment gateways, and APIs for real-time data updates. SRS document will get created and from that functional and non functional requirement document will get generate.
- Implementation - Developers will build the web and mobile app based on the design specifications. Separate modules flight search, booking, user profiles, payments will be developed and integrated to form the complete system.
- Integration and Testing - All developed components are integrated, and end-to-end testing is conducted to ensure the app functions as intended. Testing will include unit testing, system testing, user acceptance testing (UAT), and performance testing to guarantee reliability and scalability.
- Deployment - The application will be deployed to production environments, with separate rollouts for web and mobile platforms. A phased deployment strategy may be used to ensure a smooth transition and immediate resolution of any minor post-launch issues. Live web and mobile app accessible to users.
- Maintenance and Support - After deployment, the app will undergo routine maintenance to address bugs, implement updates, and improve features based on user feedback. This phase ensures the system remains reliable and aligned with evolving business needs.

APPROACHES

Stakeholder analysis will be conducted during this phase to identify and document stakeholder expectations. For MVP (Minimum Viable Product) requirements, prioritization will be performed using MOSCOW or 100-dollar method. A detailed Requirements Specification Document will be prepared and reviewed with stakeholders.

All project documentation, including requirements, system designs, and meeting notes, will be stored on SharePoint for easy access and version control.

Minutes of Meeting (MoM) will be generated for every meeting to ensure clear communication and follow-ups. A comprehensive Project Plan and Gantt Chart will be created to outline timelines, dependencies, and milestones. Weekly status reporting will be mandatory to track progress and address potential roadblocks.

Risks will be identified at the outset and continuously monitored throughout the project lifecycle. Risk mitigation strategies will be developed and regularly updated to handle any emerging risks effectively.

Development will proceed based on the finalized system designs, with clear checkpoints for code reviews and integration testing. Testing artifacts, such as test cases, test results, and defect logs, will be maintained to ensure system reliability and traceability.

A Query Log will be maintained throughout the project to document and resolve queries raised by stakeholders, developers, or testers promptly.

Upon successful completion of development and testing, the system will be deployed as per the plan. Post-deployment support will be provided, and any system issues will be documented for future reference.

Change request documentation and approver has to be maintained.

RESOURCES

PEOPLE: The project will need a cross-functional team, including a project manager, business analyst, developers, UI/UX designers, QA testers, and a system administrator. Subject matter experts and stakeholders will also be involved during requirement gathering and review phases. Each team member will have clearly defined roles and responsibilities to ensure smooth execution.

TIME: The project will follow a sequential timeline with each phase (Requirement Gathering, Design, Development, Testing, and Deployment) estimated at 4-6 weeks depending on scope. The total project duration is expected to span 6-8 months, with weekly milestones and regular status updates to monitor progress.

BUDGET: The budget will cover personnel costs (salaries, contractor fees), software licenses, hardware procurement, and contingency funds. Additionally, expenses for SharePoint storage, testing tools, and travel for stakeholder meetings will be included.

RISK AND DEPENDENCIES

- Server outages or system failures may disrupt booking services.
- Issues in integrating third-party APIs like Amadeus or payment gateways.
- Risks of unauthorized access, data breaches, fraud.
- DDOS attack
- Misunderstandings during requirement gathering could lead to incomplete features.
- Change in project scope may delay timelines and increase costs.
- Potential delays due to unforeseen technical challenges or resource unavailability.
- Higher-than-expected costs for technology, licenses, or cloud infrastructure.
- Failure to comply with GDPR, PCI DSS, or aviation industry regulations may lead to fines.
- Reliance on APIs like Amadeus, Sabre, or Google Maps for real-time flight and location data.
- Skilled developers, testers, and designers must be consistently available throughout the project lifecycle.
- Timely feedback from stakeholders, including airline partners and regulatory bodies, is essential for feature validation.
- Adequate time and tools for rigorous testing to identify and resolve issues before deployment.