

Waterfall-Business Requirement Document

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Waterfall Methodology -Business Requirement Documentation

Cosmetic Trial Booking System

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Role: Business Analyst

Project Type: Academic / Portfolio Demonstration

Methodology: Waterfall Methodology

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 *Deliverable:* Business Requirements Document (BRD)

Business Requirements Document (BRD)

ShadeSync: Mobile Booking and Engagement Platform

1. Document Control

Date	Version	Author	Description / Change Summary	Reviewed / Comments
10-Oct-2025	1.0	sankeerthana (Business Analyst)	Initial draft of the Business Requirements Document	—
14-Oct-2025	1.1	sankeerthana (Business Analyst)	Enhanced document to include business team inputs and stakeholder feedback	—
(Future Updates)	—	—	—	—

2. Approvals

Approver Name	Department / Role	Signature	Date
[Project Sponsor Name]	Executive Leadership		
[Business Manager Name]	Business Operations		
[Technical Lead Name]	Development / IT		
[QA / UAT Lead Name]	Quality Assurance		
Yogi	Business Analyst		

3. Executive Summary

- The ShadeSync project represents a strategic initiative aimed at revolutionizing cosmetics retail engagement by offering **personalized, expert-guided trial sessions** through a mobile booking and engagement platform. Customers will be able to conveniently schedule in-store cosmetic trials at certified partner locations, where trained agents perform tailored product demonstrations and provide personalized beauty guidance.
- This project addresses existing challenges such as low in-store engagement, limited product personalization, and fragmented customer experiences between online and offline channels. By digitizing the trial booking process and integrating loyalty features, ShadeSync seeks to **enhance customer satisfaction, increase store revenue, and strengthen brand loyalty**.
- The BRD outlines the high-level business needs, functional expectations, and operational considerations that will guide the design, development, and implementation of this initiative.

4. Glossary

Term / Acronym	Definition
BRD	Business Requirements Document — a formal record of business needs and project scope.
PRD	Product Requirements Document — details the functional and technical specifications.
SDLC	Software Development Life Cycle — the framework defining stages of software delivery.
CX	Customer Experience — the overall perception and satisfaction of users interacting with the product or service.
TAT	Turnaround Time — the total time taken to complete a process or respond to a request.

UAT	User Acceptance Testing — final testing phase to validate functionality against requirements.
Stakeholder	Any individual or group with a vested interest in the project's outcome.
Certified Agent	Store-based professional conducting personalized makeup trials for customers.
Loyalty Program	Reward-based feature encouraging repeat engagement and customer retention.

5. Business Goals

The **primary business goal** of the ShadeSync initiative is to establish a **digitally enabled customer engagement platform** that bridges online convenience with personalized, in-store cosmetic experiences.

Key Business Goals include:

- Enhance customer engagement and satisfaction through seamless booking and personalized consultations.
- Increase store revenue via trial session bookings, product conversions, and subscription-based loyalty programs.
- Strengthen brand awareness and customer retention through a unified digital experience.
- Provide actionable business insights through session analytics and customer feedback data.

6. Project Overview and Objectives

Project Overview

- The **ShadeSync Mobile Application** is a customer-facing digital platform designed to streamline the in-store cosmetic trial experience. It enables customers (CX) to **browse available beauty trial sessions**, **book appointments with certified agents**, and **make secure payments** — all within a single, user-friendly interface.
- This initiative complements the retailer's in-store service delivery by enhancing convenience and engagement while ensuring a consistent, data-driven experience. Through this application, the brand aims to **digitally transform customer interaction**, providing transparency in booking, feedback, and session management.

Project Objectives

The key objectives of the ShadeSync mobile application are to:

- Provide customers with a seamless platform to book and manage cosmetic trial sessions at partner stores.
- Enable integration with certified agents for session updates, recommendations, and feedback tracking.
- Offer secure, convenient in-app payment options for trials and product purchases.
- Enhance brand engagement through push notifications, personalized offers, and loyalty rewards.
- Collect customer insights to support marketing and product strategy decisions.

7. Project Scope

In Scope

The project will focus on the **design, development, and deployment** of a customer-facing mobile application that enables users to discover, book, and manage personalized cosmetic trial sessions at certified partner stores. The scope includes:

- **Customer Mobile Application (CX App):**
Development of a user-friendly mobile platform (iOS/Android) that allows customers to browse available trial sessions, select preferred slots, and confirm bookings.
- **Session Discovery and Booking Management:**
Customers can explore available trial sessions by category, product type, or skin concern, and make instant bookings with real-time slot availability.
- **Payment and Subscription Integration:**
Enable secure payment processing for session bookings and subscriptions through integrated payment gateways, supporting multiple methods (card, UPI, wallets, etc.).
- **Notification and Communication System:**
Automated push notifications and reminders for upcoming sessions, offers, and personalized recommendations to improve engagement and retention.
- **Feedback and Review Feature:**
Customers can share post-session feedback and rate their experience, enabling stores to monitor satisfaction and improve service quality.
- **Integration with Store Backend (Limited):**
The app will connect with store systems only for retrieving available slots and session details — no staff-side scheduling or resource management.
- **Data Analytics and Reporting (CX-focused):**
Capture customer booking data, feedback, and engagement metrics to support business decision-making and marketing analysis.

Out of Scope

The following components are **excluded** from the current phase of the project:

- **Staff or Agent Management Portal:**
The system will not include any separate interface or functionality for store staff or certified agents to view or manage bookings. These operations will continue to be handled manually at the store level.
- **Inventory or Product Stock Management:**
The application will not track product inventory, SKU details, or store stock levels.
- **External E-Commerce Integrations:**
No third-party e-commerce platform integration (e.g., Amazon, Nykaa) will be implemented in this phase.
- **Physical Store Operations:**
On-ground logistics, staff allocation, or store management processes remain outside the digital system's scope.
- **Customer Support Chatbot or AI Assistant:**
Advanced AI-based support systems or chatbots will not be part of this release.

8. Success Criteria

The success of the **ShadeSync Mobile Application** will be measured through clearly defined performance, operational, and customer experience metrics. These criteria ensure the project delivers tangible business value while meeting user expectations and process efficiency goals.

1. Business Success Metrics

- **Revenue Growth:** Achieve at least a **20–25% increase in partner store revenue** through cosmetic trial bookings and subsequent product sales within the first 6 months of launch.
- **Subscription Uptake:** Minimum **15% of total customers** opt for subscription-based loyalty programs within 3 months of introduction.
- **Customer Retention:** Improve customer return rate by **30%** compared to pre-launch in-store trial frequency.

2. Operational Efficiency Metrics

- **Average Booking Time:** Maintain an average **Turnaround Time (TAT)** of **less than 30 minutes** from booking confirmation to in-store session validation.
- **System Uptime:** Ensure **99% application availability** during business hours to support consistent customer access.
- **Payment Processing Time:** All in-app payment transactions should complete in **under 10 seconds** on average.
- **Error Rate:** System booking or payment failure rates to remain **below 2%** monthly.

3. Customer Experience Metrics

- **User Ratings:** Achieve an average **customer satisfaction rating of 4.5/5** or higher on in-app feedback within the first quarter post-launch.
- **Booking Abandonment Rate:** Maintain booking abandonment (uncompleted sessions) under **15%**.
- **Engagement Rate:** At least **40% of users** actively engage with app notifications, loyalty offers, or session feedback features.
- **Feedback Response Rate:** Over **60% of trial attendees** provide feedback within 24 hours of session completion.

4. Compliance and Security Metrics

- **Payment Security:** 100% compliance with **PCI-DSS** (Payment Card Industry Data Security Standard) guidelines.
- **Data Privacy:** Adherence to GDPR and local data protection standards with **zero data breaches reported**.

9. Current State and Target State

a. Current State

- i. At present, the partner cosmetic stores operate entirely through **offline, walk-in customer interactions**. Customers visit stores physically to explore cosmetic products, seek recommendations, and request makeup or skincare trials based on in-store agent availability.
- ii. The current business model is heavily dependent on **manual scheduling, verbal communication, and staff availability**, leading to limited scalability and inconsistent customer experiences.
- iii. Key challenges observed in the current process include:
 - 1) No centralized platform for customers to view available sessions or book appointments in advance.
 - 2) Store staff must manually manage bookings, customer preferences, and scheduling records.
 - 3) Limited visibility into customer behavior, product interests, and post-session feedback.
 - 4) Inconsistent turnaround times and customer wait periods during peak hours.
 - 5) Low digital engagement — marketing or loyalty activities are handled manually through flyers, calls, or in-store promotions.

- iv. Overall, the current model restricts business growth, customer retention, and operational efficiency due to the absence of a unified digital system.

b. Target State

- i. The **ShadeSync Mobile Booking and Engagement Platform** will transform the offline experience into a **digitally enabled, data-driven ecosystem** that connects customers, stores, and certified agents seamlessly.
- ii. In the future state:
 - 1) Customers will **book personalized trial sessions** through the mobile application at their preferred partner stores.
 - 2) The system will **display real-time availability** of sessions and manage customer bookings automatically.
 - 3) **Payments, cancellations, and rescheduling** can be performed securely within the app.
 - 4) Customers will receive **personalized notifications**, reminders, and promotional offers based on preferences and booking history.
 - 5) **Post-session feedback** will be captured digitally, enabling the business to track satisfaction, improve offerings, and analyze engagement trends.
 - 6) The platform will generate **data insights** to support marketing strategies, customer segmentation, and revenue forecasting.
- iii. This digital transition will enhance operational efficiency, reduce manual dependencies, improve customer satisfaction, and create new revenue opportunities through subscriptions and loyalty programs.

Current Vs Target

Aspect	Current State (Offline Store Model)	Target State (Digital Booking Platform)
Customer Access	Walk-in only	Mobile app for booking anytime, anywhere
Booking Process	Manual by store staff	Automated real-time scheduling via app
Payment Mode	Cash or in-store POS	Secure digital payments via app
Feedback System	Verbal/in-store	Digital feedback & rating system
Data & Insights	Not tracked systematically	Centralized data analytics dashboard
Customer Engagement	Flyers, calls, word of mouth	In-app notifications, offers, and loyalty rewards

10. Risk, Issues, Assumptions, and Dependencies (RAID)

1. Risks

Risks represent potential future events that may adversely affect the success or timeline of the project if not mitigated.

Risk ID	Description	Impact	Likelihood	Mitigation Strategy
R-01	Low initial customer adoption due to limited awareness of digital booking system.	High	Medium	Implement digital marketing campaigns, influencer tie-ups, and store-based promotions to educate users.
R-02	Technical delays during app development or integration with payment gateway.	High	Medium	Adopt agile delivery with phased releases and early UAT (User Acceptance Testing) cycles.
R-03	Inconsistent internet connectivity affecting mobile app performance in-store.	Medium	Medium	Enable offline caching for session data and retry mechanisms for payments.
R-04	Data security and privacy risks in handling customer profiles and payment data.	High	Low	Enforce PCI-DSS compliance, encryption standards, and two-factor authentication.
R-05	Difficulty in synchronizing real-time store slot availability.	Medium	Medium	Define a simple integration layer or periodic sync mechanism between backend and store systems.

2. Issues

Issues are current problems that have already been identified and may impact the project if not resolved.

Issue ID	Description	Impact	Status / Action Plan
I-01	Store staff currently maintain bookings manually in registers with no digital record.	Medium	Evaluate simple sync process to update store slots daily through backend uploads.
I-02	No existing centralized customer database to migrate from offline operations.	Medium	Create a new lightweight customer profile module within the app ecosystem.

I-03	Variability in store working hours across locations.	Low	Implement configurable time-slot settings per store in Phase 2 enhancement.
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3. Assumptions

Assumptions are conditions expected to be true for project planning and execution.

Assumption ID	Description	Rationale
A-01	Partner stores have certified beauty agents available to conduct trial sessions.	Ensures service quality and brand trust.
A-02	Customers have smartphones with stable internet access.	Required for mobile app adoption and booking functionality.
A-03	Payment gateways are pre-approved and compliant with security standards.	Enables smooth digital payment integration.
A-04	Each store will allocate a point-of-contact to coordinate booking confirmation manually (since staff portal is out of scope).	Prevents coordination gaps during transition phase.

4. Dependencies

Dependencies represent factors, systems, or decisions outside the project's direct control that could affect its progress or delivery timeline.

Dependency ID	Description	Type	Impact if Delayed
D-01	Approval of branding, UI/UX design, and marketing content from corporate communications team.	Internal	Delay in go-live due to pending brand validation.
D-02	Integration with certified payment gateway (e.g., Razorpay, Paytm).	External	Payment processing features cannot be deployed.
D-03	Availability of backend API from partner stores for fetching trial session slots.	Technical	App will not reflect real-time availability.
D-04	Timely UAT feedback and sign-off from key business stakeholders.	Organization	May postpone deployment timeline.

11. Major Business Requirements

The following Business Requirements define the key outcomes and functionalities that the ShadeSync Mobile Booking and Engagement Platform must deliver to meet stakeholder and customer needs. Each requirement outlines a high-level business capability, supported by detailed Functional Requirements (FRs) in the Functional Requirements Document (FRD).

BR-01: Customer Registration and Authentication

The system must allow customers (CX) to **register securely** on the mobile application using essential details such as name, email, and password. Post-registration, customers should be able to **log in using authenticated credentials** and gain access to personalized features. Once logged in, the system should display available cosmetic trial sessions based on category and location, fetched dynamically from the database.

Business Intent:

To provide a **personalized, secure, and authenticated customer experience** while enabling users to easily discover available trial sessions suited to their needs.

BR-02: Session Selection and Slot Availability

The system should enable customers to **select preferred stores, session types, and date/time slots** from a list of available options. It must dynamically **display real-time slot availability**, ensuring that only open sessions can be booked.

Business Intent:

To ensure **efficient session scheduling** by providing customers with **up-to-date store availability**, minimizing booking conflicts and improving user satisfaction.

BR-03: Booking Management and Modifications

The system should allow customers to **review, edit, and modify booking details** before confirming a trial session. Slot details and booking summaries should be **automatically updated** in real-time based on the customer's selections.

Business Intent:

To enhance **booking flexibility and user control**, reducing errors and improving the overall convenience of the reservation process.

BR-04: Payment and Transaction Management

The system must support **secure online payments** for trial session bookings through integrated payment gateways. Upon successful payment, the customer should receive a **digital confirmation**, and the system should **store the transaction record** for audit and reporting purposes.

Business Intent:

To establish a **trusted, secure payment ecosystem** that ensures seamless booking completion and financial transparency for both customers and stores.

BR-05: Cancellation and Rescheduling

The system must enable customers to **cancel or reschedule** their confirmed trial sessions through the mobile application. The system should verify applicable **refund and cancellation policies** before confirming the action.

Business Intent:

To provide **flexibility and policy-based transparency**, improving user confidence while maintaining store scheduling efficiency.

BR-06: Refund Processing and Confirmation

Upon cancellation, the system should **initiate and confirm refunds** in accordance with payment gateway policies. Customers should receive a **refund confirmation notification**, and refund details must be securely fetched from the payment gateway for reference.

Business Intent:

To ensure **smooth post-cancellation handling** and maintain customer trust through prompt, accurate refund communications.

BR-07: Data Storage and Personalized Recommendations

The system should **store and retrieve session data** for each customer, enabling personalized recommendations based on previous trials and preferences. The system will display **product suggestions and suitable cosmetic matches** post-session, supported by agent recommendations.

Business Intent:

To enhance **customer engagement and loyalty** by leveraging session history and preferences to deliver **personalized, value-driven recommendations**.

12. Business Rules

- **Booking Requirements**

- A valid account (registered with email and password) is required to make a booking.
- Bookings cannot be completed without providing mandatory personal information (name, contact number, and email).
- Each booking requires a **booking fee** to be paid upfront to confirm the booking.
- Cx must be able to see the available slots only after the Successful Login

- **Payment Rules**

- Customers must cancel their booked trial session at least 24 hours before the scheduled start time to be eligible for a refund. If the cancellation occurs within 24 hours of the session, the refund will not be processed, as the late notice prevents reallocation of the slot to other potential customers and results in operational loss.
- Refunds are processed according to the system's cancellation policy.
- All payments must be completed through the authorized payment gateway integrated with the system.

- **Session Management**

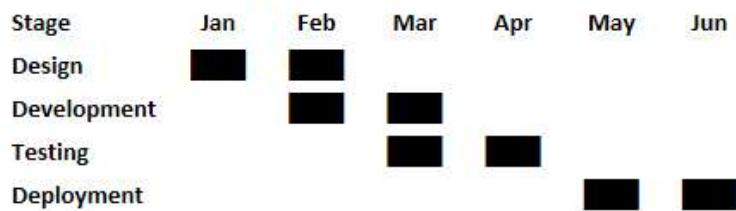
- Bookings are confirmed only if the selected session is available.
- Overlapping bookings for the same customer are not allowed.
- Maximum capacity per session must not be exceeded.

- **System Constraints**

- System must validate all mandatory fields before confirming a booking.
- Email confirmations are sent automatically upon successful booking, modification, or cancellation.
- System must enforce security standards for authentication and payment processing.

13. Project Schedule (January – June)

Project Schedule (January – June)



Legend:

- Each [■] block represents active work during that month.
- This schedule assumes a **6-month development window** focused on core booking functionality.
- You can adjust durations based on team size, scope expansion, or parallel workstreams.

14. Approval & Sign-Off

(Digital acknowledgment of completion or stakeholder sign-off)

⌚ [Add Placeholder: Signature or Approval Table]