# Project Requirement Document

## 1. Overview

This document outlines the functional and technical requirements for a web application designed to encourage individuals to use services more in their daily lives. The application aims to solve a societal problem where people are hesitant to purchase services due to social stigma and a lack of trust, which can lead to increased stress and burnout. The requirements are structured to guide the development of a hybrid platform that makes everyday services easy to access, socially normalized, and trust-driven.

**Vision**: The long-term vision of this project is to foster a habit of using services among middle-aged individuals, ensuring they have a trusted network of service providers as they age. This will alleviate future burdens on individuals and the broader social care system.

## 2. Prioritization Model

Requirements are classified into priority levels to manage the implementation process effectively.

| **Priority** | **Level** | **Description** |
| --- | --- | --- |
| P0 | Must Have / Highest | Essential for the application's core functionality. |
| P1 | Should Have / Medium | Important features that significantly enhance the user experience. |
| P2 | Nice to Have / Low | Features that add value but are not critical for the initial release. |
| P3 | Future Consideration / Optional | Features planned for later development phases. |

## 3. User Stories & Requirements

### 3.1 Consumer-Facing Features: Trust-Building & Social Normalization

**User Stories**

| **User Story ID** | **User Story Description** |
| --- | --- |
| US01 | "As a busy professional, I want to see how my peers use services and get their recommendations, so I can feel confident outsourcing tasks and reduce guilt." |
| US02 | "As a young adult, I want to easily book and manage services for my aging parents, so they can live more comfortably without having to learn a new app." |
| US03 | "As a busy parent, I want to clearly see the benefits of using services, so I can view it as an investment in my family and well-being, not a sign of laziness." |
| US04 | "As a first-time user, I want to feel safe and confident about the service provider, so I can overcome my hesitation about letting a stranger into my home or family life." |
| US05 | "As a time-crunched professional, I want the booking process to be as simple and quick as possible, so I don't feel overwhelmed by the task of finding a service." |
| US08 | "As a new user, I want to easily create an account and start using the service without a lengthy process." |
| US09 | "As an existing user, I want to be able to log in quickly and securely to manage my services and bookings." |
| US10 | "If I forget my password, I want a simple process to reset it so I can regain access to my account." |
| US11 | "As a user, I want to be able to conveniently search and filter services, to quickly find a provider that meets my needs." |
| US12 | "As a user, I want to be able to rate and review completed services, to provide feedback to other users and help improve service quality." |
| US13 | "As a user, I want to manage all my orders in one place, including viewing my history and canceling/modifying future orders." |
| US14 | "As a user, I want to receive notifications about my order status and important updates, to stay informed about the service progress." |
| US15 | "As a user, I want to easily get help and support if I run into issues while using the app." |
| US19 | "As a user, I want to receive small rewards and achievements to motivate me to continue using the service and build a habit." |
| US20 | "As a user, I want the app to remind me when I might need a service, rather than having to remember myself." |
| US21 | "As a user, I want the app to act like a 'life coach' by recommending the tasks I should outsource based on a personalized diagnosis, and showing how much time that would free up." |
| US22 | "As a user, I want to gain social recognition by sharing my accomplishments from using services (e.g., hours spent with my children), so I can feel proud." |

**Functional Requirements**

| **Requirement ID** | **Requirement** | **Priority** |
| --- | --- | --- |
| FR01.1 | The platform shall allow users to share their positive service experiences and "accomplishments" on a community "story wall". | P0 |
| FR01.2 | The platform shall display aggregated data (e.g., "80% of families in your area use a cleaning service") to provide social proof. | P1 |
| FR01.3 | The platform shall allow users to invite friends and family to join and share services via a "family account" or a referral system. | P2 |
| FR01.4 | The platform shall include a loyalty or rewards program to encourage repeat use and habit formation, including "first task" rewards, "streak challenges," and **"identity badges"** and **"lifestyle tiers"**. | P1 |
| FR01.5 | The system shall provide an option to "book for someone else," allowing users to book services for family members and set a separate profile for the service recipient. | P1 |
| FR02.1 | The system shall display a "value dashboard" that quantifies time saved and stress reduced, and provide immediate reward feedback upon service completion. | P0 |
| FR02.2 | The dashboard shall visualize time saved by translating it into relatable activities (e.g., "3 hours saved = one family dinner and a bedtime story"). | P1 |
| FR02.3 | The system shall generate weekly or monthly summaries of a user's accumulated gains. | P1 |
| FR03.1 | The platform shall implement a strict screening and verification process for all service providers. | P0 |
| FR03.2 | Each service provider's profile shall include verified credentials, public background check status, and authentic user reviews. | P0 |
| FR03.3 | The platform shall offer a clear "satisfaction guarantee" or service insurance policy. | P1 |
| FR03.4 | The platform shall include real-time location tracking for on-site services. | P1 |
| FR04.1 | The user interface shall be designed to be simple, intuitive, and mobile-first. | P0 |
| FR04.2 | The booking process shall be streamlined to a maximum of three steps from service selection to payment, and include a "one-click rebook" feature. | P1 |
| FR04.3 | Transparent pricing and a clear breakdown of service costs shall be displayed before booking confirmation. | P0 |
| FR06.1 | The platform shall provide an intuitive sign-up interface that supports email/phone number registration with validation. | P0 |
| FR06.2 | The platform shall provide a login interface that supports username/email and password, with an integrated password recovery function. | P0 |
| FR06.3 | Upon login, the system shall redirect users to different homepages based on their role (consumer or provider). | P0 |
| FR07.1 | The platform shall provide a service search function that allows users to search by service category, location, date, and price. | P0 |
| FR07.2 | The platform shall provide advanced filtering options, allowing users to filter by provider ratings, certification status, and reviews. | P1 |
| FR08.1 | Users shall be able to rate and write a review for a service provider after a service is completed. | P0 |
| FR08.2 | Reviews shall be moderated to ensure authenticity and relevance. | P1 |
| FR09.1 | Users shall be able to view all their historical and upcoming orders on a "My Orders" page. | P0 |
| FR09.2 | Users shall be able to cancel or modify upcoming orders, subject to a refund policy. | P1 |
| FR10.1 | The platform shall provide a notification center for users, displaying order status updates, chat messages, and important reminders, and shall be able to provide "habit-based smart reminders" based on user booking patterns. | P1 |
| FR11.1 | The platform shall provide a help center or a FAQ section. | P2 |
| FR11.2 | The platform shall provide an online live chat feature to address user issues. | P2 |

### 3.2 Provider-Facing Features: Service Management & Client Communication

**User Stories**

| **User Story ID** | **User Story Description** |
| --- | --- |
| US06 | "As a service provider, I want a simple interface to manage my schedule, receive booking requests, and update my profile, so I can run my business efficiently." |
| US07 | "As a service provider, I want to have clear communication with both the person booking the service and the service recipient to ensure a smooth service and meet all needs." |

**Functional Requirements**

| **Requirement ID** | **Requirement** | **Priority** |
| --- | --- | --- |
| FR05.1 | The platform shall provide a separate "provider portal" for service providers to manage their orders, schedules, and profiles. | P0 |
| FR05.2 | The provider portal shall allow service providers to set their availability, service area, and pricing. | P1 |
| FR05.3 | Service providers shall be able to communicate with customers (both the booker and the recipient) through a "direct chat" feature. | P0 |
| FR05.4 | The system shall send push notifications to providers for new booking requests or chat messages. | P1 |
| FR05.5 | Service providers shall be able to submit a report after completing a service and request confirmation from the customer. | P1 |

### 3.3 Admin-Facing Features: Platform Operations & Data Monitoring

**User Stories**

| **User Story ID** | **User Story Description** |
| --- | --- |
| US16 | "As a site admin, I want to be able to manage and moderate user-submitted content and reviews to ensure the community remains healthy and trustworthy." |
| US17 | "As a site admin, I want to be able to view and handle issues or complaints submitted by users, to provide timely customer support." |
| US18 | "As a site admin, I want to be able to approve new service providers and verify their credentials to uphold the platform's safety standards." |

**Functional Requirements**

| **Requirement ID** | **Requirement** | **Priority** |
| --- | --- | --- |
| FR12.1 | The platform shall provide an admin backend to manage all user accounts (both consumers and providers). | P0 |
| FR12.2 | The platform shall provide content moderation features, allowing admins to approve, reject, or delete story wall posts and user reviews. | P0 |
| FR12.3 | The platform shall provide a dashboard displaying key business metrics (e.g., number of registered users, active bookings, etc.). | P1 |
| FR12.4 | The platform shall provide a ticketing or support system to track and handle user complaints and help requests. | P1 |
| FR12.5 | The platform shall provide tools to verify service provider credentials and background check status. | P0 |

## 4. Backend & Technology Architecture

**Technology Stack**

* **Front-end**: React
* **Core Backend**: Node.js (JavaScript)
* **Microservices**: FastAPI (Python)
* **Database**: PostgreSQL (with PostGIS extension)

**Technical Requirements**

| **Requirement ID** | **Requirement** | **Priority** |
| --- | --- | --- |
| TR01.1 | **Database Design**: Design and implement a scalable database architecture using **PostgreSQL** to store all data related to users, service providers, bookings, reviews, and community content. The database shall integrate the **PostGIS** extension to support geospatial data. | P0 |
| TR01.2 | **Core API Development**: Develop a set of RESTful APIs using **Node.js** to handle all core data communication, including user authentication, booking management, and interfaces with real-time and background services. | P0 |
| TR01.3 | **Microservice API Development**: Develop separate microservices using **FastAPI** for handling high-performance, specific tasks, such as: <br> • Geospatial services<br> • Complex data computations (e.g., value dashboard calculations)<br> • Future machine learning models. | P1 |
| TR01.4 | **Authentication & Authorization**: Implement a robust user authentication and authorization system to ensure only authorized users can access sensitive data. It shall support different user roles (e.g., booker vs. service recipient). | P0 |
| TR01.5 | **Payment Integration**: Integrate a third-party payment gateway (e.g., Stripe, Braintree) to process all transactions securely. | P0 |
| TR01.6 | **Geospatial Services**: Integrate geospatial APIs (e.g., Google Maps API) to support service search, real-time location tracking, and geofencing. | P1 |
| TR01.7 | **Real-time Communication**: Implement a WebSocket service to support real-time chat functionality between users and service providers. | P1 |
| TR01.8 | **Background Services**: Develop background services to handle data computation (e.g., value dashboard calculations), push notifications, and email sending. | P1 |
| TR01.9 | **Data Analytics**: Establish a data pipeline to collect user behavior and transaction data for analysis, reporting, and personalized recommendations. | P2 |
| TR01.10 | **Machine Learning**: Consider developing machine learning models in the future for smarter service provider matching, price prediction, and demand analysis. | P3 |