**Software Requirements Specification (SRS)**

**for “Book Can Cook Your Brain”**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the functional and non-functional requirements of the “Book Can Cook Your Brain” mobile application. The app aims to encourage reading habits by providing monetary and social rewards to users who read books and refer others.

**1.2 Scope**

“Book Can Cook Your Brain” is a gamified book-reading and reward platform where:

* Users earn money and Trust Rating Points (TRP) by finishing books.
* Users can refer friends to earn additional rewards.
* A score is calculated based on the number of books completed.
* Users gain followers based on their reading achievements and activity.

The application will include features for registration, book tracking, TRP scoring, referrals, wallet management, and social engagement.

**1.3 Definitions, Acronyms, and Abbreviations**

* **TRP (Trust Rating Points):** Points earned each time a user finishes reading a book.
* **Score:** A numerical measure of the number of books a user has read relative to available books.
* **Referral Code:** A unique invite code for referring others to the app.

**1.4 References**

All concepts and requirements are based on the user-defined app description provided by the client.

**2. Overall Description**

**2.1 Product Perspective**

The system will function as a standalone mobile app with optional cloud synchronization to store user progress, TRP, and referral data. It may integrate with third-party eBook APIs or in-app book content management systems.

**2.2 Product Functions**

* Account creation and user authentication
* Digital reading dashboard
* Automatic book completion tracker
* TRP and monetary reward calculation
* Referral and reward management
* Leaderboard and follower engagement
* Wallet and payment withdrawal system

**2.3 User Characteristics**

* **Primary Users:** Book lovers, students, avid readers.
* **Secondary Users:** Publishers and content partners (optional).

**2.4 Constraints**

* Internet connection required for updates and verification.
* Copyright-compliant book content sources only.
* Payment processing follows standard digital wallet regulations.

**2.5 Assumptions and Dependencies**

* Users read books through the app’s built-in reader or connected sources.
* Reward calculations are server-side to maintain fairness.
* Integration with secure digital payment systems (e.g., PayPal, UPI).

**3. Specific Requirements**

**3.1 Functional Requirements**

* **FR1:** The system shall allow users to register/login using email or social accounts.
* **FR2:** The system shall display an available book list for reading.
* **FR3:** The system shall track reading completion and automatically update book progress.
* **FR4:** For every completed book, the user’s TRP shall increase by a fixed amount.
* **FR5:** If a user completes 9 out of 10 books, they shall earn $5.
* **FR6:** The system shall generate unique referral codes for every user.
* **FR7:** When a referred user registers, the referrer shall earn additional rewards.
* **FR8:** The system shall maintain a TRP-based leaderboard.
* **FR9:** The system shall allow users to follow others and display follower count.
* **FR10:** The system shall provide a wallet summary showing total earnings and redeemable balance.

**3.2 Non-Functional Requirements**

Performance

* Fast loading times
* Real-time score updates

Security

* Encrypted user data
* Secure payment and reward handling

Usability

* Intuitive UI/UX
* Accessible design for all age groups

Scalability

* Support for growing user base
*  Expandable book library

Maintainability

* Modular codebase
* Easy updates and bug fixes

**3.3 Performance Requirements**

* The app should handle up to 10,000 concurrent users.
* All book progress updates must reflect accurately within 5 seconds of completion.

**3.4 Security Requirements**

* Use encryption for TRP, wallet, and payment data.
* Implement two-factor authentication (2FA) for withdrawals.
* Validate book completion to prevent reward fraud.

**4. System Design (Conceptual Overview)**

* **Frontend:** Flutter/Dart based mobile app interface.
* **Backend:** Cloud server (Firebase / AWS) managing user, TRP, and reward data.
* **Database:** Firestore or MongoDB for scalability.
* **Payment Gateway:** Integration with PayPal, Razorpay, or Stripe APIs.

**5. Future Enhancements**

* AI-based reading time validation to detect genuine reading.
* Gamified badges and missions for reading themes.
* Community discussion boards for book reviews.
* Integration with audiobook platforms.