**Software Requirements Specification (SRS) for Studious**

**1. Introduction**

**1.1 Purpose**

This Software Requirements Specification (SRS) document describes the software requirements for *Studious*, a study-themed mobile application designed to enhance productivity and engagement for students and self-learners. This document defines the functional and non-functional requirements for the *Studious v1.0* release.

The scope of this document includes the mobile application’s features, design constraints, intended users, and operating environments. It does not include server-side infrastructure, marketing components, or any external hardware integrations.

**1.2 Document Conventions**

This document follows standard SRS conventions as outlined in IEEE Std. 830-1998.

* **Headings:** Major sections are numbered (e.g., 1.0, 1.1).
* **Bold Text:** Indicates key terms and section titles.
* **Italics:** Used for emphasis or naming the application (e.g., *Studious*).
* **“Shall” statements:** Indicate mandatory requirements.
* **“Should” statements:** Indicate optional or recommended features.
* Priorities are **explicitly stated** for each major requirement; they are not inherited by default.

**1.3 Intended Audience and Reading Suggestions**

This document is intended for:

* **Developers:** To understand required features, user interfaces, and system behavior.
* **Project Managers:** To plan milestones, assign resources, and track progress.
* **Testers:** To develop test cases and ensure conformance with specifications.
* **End Users / Stakeholders:** To validate that requirements meet study-related needs.

The document is organized as follows:

* **Chapter 1:** Introduction and purpose of the system.
* **Chapter 2:** Overall system description.
* **Chapter 3:** External interface requirements.

Readers are encouraged to begin with Chapter 1 for context, followed by Chapter 2 for system overview, and then Chapter 3 for technical interface details.

**1.4 Product Scope**

*Studious* is a mobile productivity and study companion app that helps users plan, track, and enhance their learning sessions. It integrates focus timers, flashcards, progress analytics, and collaborative study rooms to create an engaging study experience.

**Objectives and Benefits:**

* Help students structure their study sessions with focus timers and goals.
* Provide personalized study recommendations based on usage analytics.
* Foster motivation through streaks, rewards, and peer collaboration.
* Integrate cloud sync to ensure progress is saved across devices.

**Scope Boundaries:**

* **Included:** User account management, task planning, study analytics, focus timers, flashcard generation, community study rooms.
* **Excluded:** Integration with external LMS (Learning Management Systems), third-party advertisements, and offline multiplayer features.

**1.5 References**

* IEEE Std. 830-1998: IEEE Recommended Practice for Software Requirements Specifications.
* Android Developer Documentation (https://developer.android.com/docs).
* Apple iOS Human Interface Guidelines (https://developer.apple.com/design/human-interface-guidelines).
* None other at this stage.

**2. Overall Description**

**2.1 Product Perspective**

*Studious* is a new, self-contained mobile application developed as an independent product. It does not replace any existing system but aims to provide a unified digital environment for students to manage study sessions efficiently.

The application will connect to a cloud-based backend for data synchronization, user authentication, and analytics tracking.  
Below is a high-level context diagram:

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| User Device |

| (Android/iOS App) |

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| | Studious Interface | |

| | - Dashboard | |

| | - Timer | |

| | - Flashcards | |

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| | HTTPS API |

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| Cloud Backend |

| - User Accounts |

| - Analytics Database |

| - Sync Services |

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**2.2 Product Functions**

The major functions of *Studious* include:

* **User Account Management:** Sign up, login, password reset, and profile customization.
* **Study Planner:** Create, edit, and track study tasks or goals.
* **Focus Timer:** Start Pomodoro-style sessions and track productivity.
* **Flashcard Builder:** Create or import flashcards for study review.
* **Analytics Dashboard:** View progress reports, streaks, and time spent studying.
* **Social Study Rooms:** Join or create virtual rooms for collaborative learning.
* **Notifications and Reminders:** Alert users for study sessions and deadlines.

**2.3 User Classes and Characteristics**

| **User Class** | **Description** | **Technical Expertise** | **Frequency of Use** |
| --- | --- | --- | --- |
| **Students** | Primary users who manage study sessions, tasks, and analytics. | Basic to moderate | Daily |
| **Educators/Tutors** | Use app features to monitor student progress or create shared study rooms. | Moderate | Weekly |
| **Guest Users** | Limited access without login; can use timers and demo features. | Basic | Occasional |
| **Administrators** | Manage database, handle reports, and maintain user data integrity. | High | As needed |

**2.4 Operating Environment**

*Studious* will operate in the following environments:

* **Mobile Platforms:**
  + Android 11 (API Level 30) and above
  + iOS 15 and above
* **Supported Browsers (Web Access):**
  + Chrome (v110+), Safari (v15+), Edge (v110+).
* **Internet Connection:** Required for account sync, analytics, and cloud storage.
* **Storage Requirements:** Minimum 200 MB free space on device.

**2.5 Design and Implementation Constraints**

* Must comply with Google Play and Apple App Store policies.
* Backend must use HTTPS for secure communication.
* The system must store user data following GDPR and FERPA compliance standards.
* The mobile application shall be built using Flutter for cross-platform compatibility.
* Database will utilize Firebase Firestore for real-time synchronization.
* System response time should not exceed 2 seconds under normal load.

**2.6 User Documentation**

The following documentation will accompany the software:

* **User Manual (PDF and in-app Help Section):** Explains app setup, navigation, and feature usage.
* **Quick Start Guide:** Provides simple onboarding steps for first-time users.
* **Online Help/FAQ Section:** Accessible from the app’s “Help” menu.
* **Video Tutorials:** Optional embedded videos for visual learners.

**2.7 Assumptions and Dependencies**

**Assumptions:**

* Users have basic knowledge of mobile applications.
* An active internet connection is available for synchronization.
* Devices meet minimum storage and OS requirements.

**Dependencies:**

* Reliable third-party services such as Firebase Authentication and Firestore Database.
* App distribution depends on Google Play and App Store approval processes.
* Future updates may depend on availability of AI-based APIs for adaptive learning features.