**Software Requirements Specification (SRS)**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to define the software requirements for the Smart School Platform. It outlines the functional and non-functional requirements, design constraints, and other system specifications.

**1.2 Scope**

The Smart School Platform aims to provide a seamless and efficient way for students, parents, and teachers to interact with the school system. The platform will include features for tracking exams, events, assignments, grades, attendance, and performance.

**1.3 Definitions, Acronyms, and Abbreviations**

* SRS: Software Requirements Specification
* UI: User Interface
* UX: User Experience

**1.4 References**

* User Requirements Document
* Project Plan Document

**2. Overall Description**

**2.1 Product Perspective**

The Smart School Platform is a web-based application that integrates with existing school management systems. It is designed to enhance communication and information sharing among students, parents, and teachers.

**2.2 Product Features**

* **Student Module**: Exam and event information, assignment tracking, grade and performance tracking, attendance tracking.
* **Parent Module**: Performance monitoring, communication with teachers, event and exam notifications.
* **Teacher Module**: Assignment and exam information, attendance management, performance feedback.

**2.3 User Classes and Characteristics**

* **Students**: Primary users who will access information about their exams, assignments, grades, and attendance.
* **Parents**: Users who will monitor their children's academic performance and communicate with teachers.
* **Teachers**: Users who will manage assignments, exams, and attendance, and provide feedback on student performance.

**2.4 Operating Environment**

* Web browsers: Chrome, Firefox, Safari, Edge
* Operating systems: Windows, macOS, Linux

**2.5 Design and Implementation Constraints**

* Must comply with school data privacy policies.
* Should be accessible on various devices, including desktops, tablets, and smartphones.

**2.6 User Documentation**

* User manual
* Online help and FAQs

**3. System Features**

**3.1 Student Module**

**3.1.1 Description and Priority**

High priority. Allows students to access critical academic information.

**3.1.2 Functional Requirements**

* **FR1**: The system shall allow students to view upcoming exams and events.
* **FR2**: The system shall enable students to track their assignments.
* **FR3**: The system shall display students' grades and performance metrics.
* **FR4**: The system shall provide attendance tracking for students.

**3.2 Parent Module**

**3.2.1 Description and Priority**

High priority. Enables parents to stay informed about their child's academic progress.

**3.2.2 Functional Requirements**

* **FR5**: The system shall allow parents to view their child's academic performance.
* **FR6**: The system shall facilitate communication between parents and teachers.
* **FR7**: The system shall send notifications about upcoming exams and events.

**3.3 Teacher Module**

**3.3.1 Description and Priority**

High priority. Supports teachers in managing academic tasks and student performance.

**3.3.2 Functional Requirements**

* **FR8**: The system shall allow teachers to post information about assignments and exams.
* **FR9**: The system shall enable teachers to manage and record student attendance.
* **FR10**: The system shall allow teachers to provide feedback on student performance.

**4. External Interface Requirements**

**4.1 User Interfaces**

* **Login Page**: A secure login interface for all users.
* **Dashboard**: Personalized dashboards for students, parents, and teachers.
* **Notifications**: Alert and notification system for important updates.

**4.2 Hardware Interfaces**

* No specific hardware interfaces required.

**4.3 Software Interfaces**

* **Database**: Integration with a database system for storing user data.
* **Email System**: For sending notifications and alerts.

**4.4 Communications Interfaces**

* **HTTP/HTTPS**: For secure web communication.

**5. Non-Functional Requirements**

**5.1 Performance Requirements**

* The system should handle up to 1000 concurrent users.
* The system should respond to user actions within 2 seconds.

**5.2 Security Requirements**

* User authentication via username and password.
* Data encryption for sensitive information.

**5.3 Usability Requirements**

* The system should be intuitive and easy to navigate.
* The system should be accessible to users with disabilities.

**5.4 Reliability Requirements**

* The system should have an uptime of 99.5%.
* The system should have backup and recovery mechanisms.

**6. Other Requirements**

**6.1 Data Privacy**

* The system must comply with local data privacy laws and regulations.
* User data should be protected and not shared without consent.

**6.2 Maintenance**

* Regular updates and maintenance should be scheduled to ensure the system remains functional and secure.