School Management System - Requirements Doc

This document outlines the key modules and functionalities for the proposed School Management System, designed to provide a comprehensive and intuitive platform for efficient school administration. The system aims to streamline operations for administrators, teachers, and students, enhancing communication and academic processes.

Project Overview

The School Management System will cater to the needs of various user roles: Admin, Teachers, and Students. The system will provide dedicated functionalities for each role, ensuring a tailored and efficient user experience.

Modules List and Description

1. User Roles & Access Control

- **Roles:**
  - **Admin** – Full control over all system modules and configurations.
  - **Teachers** – Manage classes, attendance, assignments, exams, and lesson plans.
  - **Students** – View assignments, attendance, schedules, results, and pay fees.
- **Common Portal** – Single login portal for all roles, with role-based dashboards and permissions.

2. Student Information Management

- Maintain complete student profiles including personal details, academic history, and contact information.
- Track student enrollment, class assignments, and optional services (e.g., bus transport).

3. Teacher Information Management

- Store and manage teacher profiles, subjects assigned, timetable, and qualifications.
- Manage attendance (via biometric integration).

4. Attendance Management

- **Teachers** – Biometric attendance system for automated tracking.
- **Students** – Attendance taken by teachers via web or mobile app.
- Attendance records accessible for both teachers and students.

5. Academic & Lesson Planning

- Define syllabus and curriculum per subject/class.
- Create and manage **lesson plans** and **school calendar**.
- Assign and manage **periods/schedules** for classes.

6. Assignment, Homework & Notes

- Teachers can create assignments, upload notes, and give homework.
- Students can view homework, notes, and submit assignments digitally.

7. Examination & Test Management

- Schedule exams and unit tests. For example,
  - **Unit Tests**: 1st, 2nd, and 3rd (20 marks each)
  - **Term Exams**: 1st & 2nd Term (50 marks each)
  - **Final Exam**: 100 marks
- Maintain question papers, marks entry, and result generation.
- Publish results for student dashboards.

8. Fee Management

- Manage fee structures, dues, and payment status.
- Generate printable **fee receipts**.
- **Payment Gateway Integration** for online fee payment.
- Automatic **SMS/WhatsApp reminders** for pending fees.
- One-click report of students with dues (name, class, phone number).

9. Admission Management

- Register and admit new students into the system.
- Assign classes and sections upon admission.
- Maintain historical admission records.

10. Dashboard & Reports

- **Admin Dashboard** – Statistics on students, teachers, attendance, and fee dues. Can post **notices** which will appear on teacher and student dashboards.
- **Teacher Dashboard** – Assigned classes, schedules, pending evaluations, and notices from admin.
- **Student Dashboard** – Personal performance statistics, attendance history, homework list, **previous results**, and newly published results. Also displays notices from admin.
- Generate reports for attendance, fees, academic performance, and enrollment.

11. Communication & Notifications

- **SMS & WhatsApp Integration** for announcements, reminders, and updates.
- Fee reminders, attendance alerts, and exam notifications sent automatically.
- Notices posted by admin displayed on dashboards of students and teachers.

12. Transportation Management *(Future Development Stage)*

- Track bus routes, assigned students, and drivers.
- Maintain vehicle information and schedules.
- Integrate with student profiles for bus enrollment.

Additional Basic Modules

These will make the system more complete without adding complexity:

- **Document Upload & Storage** – Upload certificates, ID proofs, and academic documents.

Module Summary Table

Module	Description
User Roles & Access Control	Admin, Teacher, and Student roles with a single portal and role-based dashboards.
Student Information Management	Store and manage student details, academic records, and service enrollments.
Teacher Information Management	Maintain teacher profiles, subjects, and attendance via biometrics.
Attendance Management	Biometric attendance for teachers; web/app attendance entry for students.
Academic & Lesson Planning	Manage syllabus, lesson plans, periods, and school calendar.
Assignments, Homework & Notes	Upload and assign homework/notes, students can view and submit.
Examination & Test Management	Schedule exams/tests, manage marks, and publish results.
Fee Management	Track fees, dues, online payment, and send automated reminders.
Admission Management	Student registration, class allocation, and record-keeping.
Dashboards & Reports	Role-specific dashboards with statistics, notices, and reports.
Communication & Notifications	SMS/WhatsApp alerts for fees, attendance, and announcements.
Transportation Management	(Future) Manage bus routes, student assignments, and vehicles.

Note: These modules reflect our current understanding of the system. Please provide any feedback or requested changes. Otherwise, we will proceed with development using these modules as outlined in this document.