Functional Requirements

1. User Authentication and Access Control

1: The system shall allow users (Admin, Teacher, Student) to log in using a unique username and password.

2: The system shall verify user credentials before granting access.

3: The system should provide different access rights based on user roles:

- Admin: Full access to manage all modules.

- Teacher: Access to classes, attendance, and grades.

- Student: Access to personal grades, schedule, and announcements.

4: The system shall allow the admin to add, update, or remove user accounts.

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2. Student Management

1: The system shall allow the admin to add, view, edit, and delete student information (e.g., name, ID, class, contact details).

2: The system allows teachers to view student lists for their classes.

3: The system shall store all student data securely in a central database.

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3. Teacher Management

1: The system shall allow the admin to add, view, edit, and delete teacher profiles.

2: The system shall assign teachers to specific classes or subjects.

3: The system allows teachers to update their profile information (except roles or permissions).

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4. Attendance Management

1: The system allows teachers to record attendance for each class session.

2: The system shall allow the admin to view attendance records for all classes.

3: The system shall allow students to view their own attendance history.

4: The system shall generate attendance reports based on selected dates or classes.

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5. Grades Management

1: The system shall allow teachers to enter and update student grades for each subject.

2: The system shall calculate and display overall grades or averages automatically (if applicable).

3: The system shall allow students to view their grades securely.

4: The system shall allow admins to generate grade reports for review.

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6. Announcements and Communication

1: The system shall allow the admin to create and send announcements to all users or selected groups (e.g., teachers, students).

2: The system shall display announcements on the dashboard of each user.

3: The system shall allow teachers to post class-related notices viewable by their students.

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7. Reports and Data Management

1: The system shall generate simple reports on attendance, grades, and student performance.

2: The system should provide search and filter options to quickly find records.

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8. System Management and Security

1: The system shall automatically back up data periodically.

2: The system shall log on to user activities (e.g. login, data updates).

3: The system shall restrict unauthorized access to sensitive data.

4: The system should provide password reset functionality for users.

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9. System Accessibility

1: The system should be accessible through a standard web browser.

2: The system shall support multiple devices (desktop, laptop, tablet).

3: The system should require an active internet connection to function.