

## School ERP System - Detailed Feature Explanation and API List

### LOGIN (All Roles)

Features:

- Role-based login: Admin, Teacher, Accountant, Parent.
- Secure login using JWT/token.
- Password change and reset features.
- Parents login using student admission ID.

APIs:

- POST /auth/login
- POST /auth/reset-password
- POST /auth/change-password

### ADMIN FEATURES

#### Dashboard

Features:

- - View total number of students, teachers, and staff.
- - Graphical representation of fee collection, admission trends, and attendance.

APIs:

- - GET /admin/dashboard/counts
- - GET /admin/dashboard/graphs

#### Student Management

Features:

- - Add, update, view, and delete student records.
- - Assign students to specific class and division.
- - Generate admission ID and ID card.
- - Track student fee status, attendance, academic history.

APIs:

- - POST /students
- - GET /students
- - GET /students/:id
- - PUT /students/:id
- - DELETE /students/:id
- - PUT /students/:id/assign-class
- - GET /students/:id/id-card

## Teacher Management

Features:

- - Full CRUD for teachers.
- - Assign multiple subjects and classes.
- - Assign class teacher role.
- - View teacher timetable and subject list.

APIs:

- - POST /teachers
- - GET /teachers
- - GET /teachers/:id
- - PUT /teachers/:id
- - DELETE /teachers/:id
- - PUT /teachers/:id/assign-subject

## Staff Management

Features:

- - Manage non-teaching staff like peons, librarians, clerks.
- - Assign responsibilities and salary.

APIs:

- - POST /staff
- - GET /staff
- - PUT /staff/:id
- - DELETE /staff/:id

## Class Management

Features:

- - Create and manage classes with divisions.
- - Assign class teacher and students.
- - Manage timetable for each class.

APIs:

- - POST /classes
- - GET /classes
- - PUT /classes/:id
- - DELETE /classes/:id
- - PUT /classes/:id/assign-class-teacher

## Subject Management

Features:

- - Assign subjects to each class.
- - Assign subject teachers.

APIs:

- - PUT /classes/:id/assign-subject

## Admission Process

Features:

- - Manage end-to-end student admission workflow.
- - Auto-generate unique admission ID (e.g., 2025 + studentCount + date).
- - Generate ID cards.

APIs:

- - POST /students/admission
- - GET /students/:id/id-card

## Broadcast Notices

Features:

- - Admin can create broadcast messages visible to all users.
- - Categorize notices (e.g., Academic, Events, Urgent).

APIs:

- - POST /notices
- - GET /notices

## Fee Management

Features:

- - Set fee structure for classes and categories.
- - View and update individual student fee records.
- - Fee collection analytics and dues tracking.

APIs:

- - GET /fees
- - POST /fees
- - PUT /fees/:studentId

## View Shared Resources and Homework

Features:

- - View content shared by teachers.
- - View homework assigned by teachers per class and subject.

APIs:

- - GET /resources
- - GET /resources?classId=...&subjectId=...

### Password Management

Features:

- - Admin can reset password of any user.

APIs:

- - PUT /auth/reset-password

### Academic Calendar

Features:

- - Set holidays, exams, and important events.
- - Affects attendance system.

APIs:

- - GET /calendar
- - POST /calendar
- - PUT /calendar/:id
- - DELETE /calendar/:id

### Fee Payment Tracking

Features:

- - Track if a student has completed fee payment or not.

APIs:

- - GET /fees/:studentId

## TEACHER FEATURES

### Dashboard

Features:

- - Teacher's schedule overview.
- - Upcoming tasks, events, and notices.

APIs:

- - GET /teacher/dashboard

### View/Add Notices

Features:

- - View admin notices.
- - Class teachers can create notices for their class.

APIs:

- - GET /notices
- - POST /notices

### To-Do List

Features:

- - Teachers can create personal to-do lists.
- - Track completion of tasks like grading, meetings.

APIs:

- - POST /todo
- - GET /todo?teacherId=...
- - PUT /todo/:id
- - DELETE /todo/:id

### Attendance (Class Teacher Only)

Features:

- - Class teacher marks attendance (Present, Absent, Holiday).
- - Respects holidays set in academic calendar.

APIs:

- - POST /attendance
- - GET /attendance?classId=...&date=...

### View Student Profiles

Features:

- - Access profiles of students in their class or subject.

APIs:

- - GET /students/:id

### Homework & Resources

Features:

- - Upload homework assignments and study resources.
- - Target by class, subject, or both.

APIs:

- - POST /resources
- - GET /resources?teacherId=...
- - DELETE /resources/:id

## ACCOUNTANT FEATURES

### Fee Management

Features:

- - Manage fee structure per class.
- - Record fee payment by students.
- - Generate fee receipts.

APIs:

- - GET /fees
- - PUT /fees/:studentId
- - POST /fees/payment

### Staff & Teacher Salary

Features:

- - Record salary disbursement.
- - Update payment status.

APIs:

- - GET /salary?staffId=...
- - PUT /salary/:staffId

### Fee Discounts/Waivers

Features:

- - Apply discount codes or fee waivers to specific students.

APIs:

- - PUT /fees/:studentId/waiver

### Update Full Fee Details

Features:

- - Edit or update all fee details for students.

APIs:

- - PUT /fees/:studentId

## PARENT FEATURES

Features:

- - View student profile, academic history, and attendance.
- - Check fees paid and due.
- - View homework and resources shared by teachers.
- - Access school calendar and holidays.
- - Receive important notices from school.

APIs:

- GET /students/:id
- GET /fees/:studentId
- GET /attendance?studentId=...
- GET /resources?classId=...
- GET /notices
- GET /calendar