

# Module Name: Student Management

## 1. Problem Statement

Schools often maintain student records using paper files or scattered spreadsheets. This leads to missing data, slow lookups, and inconsistent or outdated information. Promoting students, updating details, or locating records becomes time-consuming and error-prone.

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## 2. Module Description

This module provides a centralized digital system to create, update, organize, and store complete student profiles. It manages personal information, class assignments, documents, enrollment status, and year-to-year transitions.

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## 3. Users

Admin

Principal (view only)

Teachers (view only / partial)

Parents/Students (view only)

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## 4. Features

Create new student profiles with personal and academic details

Update and archive student records

Assign/move students to class & section

Promote students during academic year transitions

Upload and store documents (birth certificate, transfer certificate, ID proof)

Search and filter students by name, enrollment number, class, or section

View full student profile (attendance, marks, fee status — view from other modules)

Export student lists for reporting

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## 5. Inputs / Outputs

Inputs:

Student personal data (name, DOB, gender, address)

**Guardian contact info**

**Class & section assignment**

**Uploaded documents**

**Outputs:**

**Student profile**

**Class-wise student lists**

**Downloadable reports**

**Archived/withdrawn student records**

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## **6. User Time & Workload**

**Admins:** High usage (student admission, updates, promotions)

**Teachers:** Moderate usage (viewing profiles)

**Parents/Students:** Occasional (view-only)

→ Overall: **High-priority module** since it is the core dataset for all other modules.

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# Module Name: Attendance Management

## 1. Problem Statement

Manual attendance registers are slow to fill, prone to human errors, and difficult to consolidate for reports. Teachers spend significant time marking attendance, and parents lack real-time awareness of absences or low attendance.

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## 2. Module Description

This module allows teachers to digitally record daily student attendance and view historical records. It provides tools for bulk marking, automated calculations, and absence alerts to parents. Admins can monitor attendance trends and generate reports.

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## 3. Users

Teachers

Admin

Principal (view only)

Parents/Students (view only)

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## 4. Features

Mark daily attendance for each class/section

Bulk attendance marking (present-all, absent-all, or CSV import)

View historical attendance per student or class

Auto-calculate attendance percentage for selected date ranges

Automatic absence or low-attendance notifications to parents

Export attendance reports (class-wise, student-wise, date-wise)

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## 5. Inputs / Outputs

Inputs:

Daily attendance status (present/absent/leave)

Bulk upload file (CSV, optional)

Date and class/section selection

**Outputs:**

Attendance records and summaries

Attendance percentage reports

Absence alerts sent to parents

Exported attendance sheets

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## **6. User Time & Workload**

**Teachers:** Heavy daily usage → primary user

**Admin:** Occasional (reviews and reports)

**Parents/Students:** Frequent viewing of attendance status

→ Overall: **High-priority module** due to daily operations.

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# Module Name: Timetable Management

## 1. Problem Statement

Manually preparing class and teacher timetables often leads to conflicts such as double-booked teachers, overlapping classes, or unavailable rooms. Updating schedules mid-year becomes difficult and requires reprinting and redistribution.

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## 2. Module Description

This module enables administrators to create, update, and publish weekly timetables for each class and section. It assigns teachers to subjects and timeslots while automatically detecting scheduling conflicts. Students, parents, and teachers can view their respective timetables digitally.

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## 3. Users

**Admin**

**Principal (view only)**

**Teachers (view own timetable)**

**Students/Parents (view only)**

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## 4. Features

Create and edit weekly class timetables

Assign teachers, subjects, timeslots, and rooms

Automatic detection of conflicts (teacher double-booking or room clashes)

Publish updated timetables to teachers, students, and parents

View subject-wise, class-wise, and teacher-wise timetables

Export timetables for printing or reporting

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## 5. Inputs / Outputs

**Inputs:**

Class/section details

Subjects and allotted periods

Teacher assignments

Room allocation (optional)

**Outputs:**

Published class timetable

Teacher-specific timetable

Conflict notifications

Printable/exportable timetable layouts

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## **6. User Time & Workload**

**Admin:** High usage during academic year setup and schedule modifications

**Teachers/Students/Parents:** Frequent viewing but minimal interaction

→ Overall: **Medium-high priority module** due to its impact on daily operations.

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# **Module Name: Exam & Marks Management**

## **1. Problem Statement**

Manually scheduling exams, entering marks, and generating report cards is error-prone and time-consuming. Teachers and admins spend significant effort tracking exam schedules, calculating grades, and sharing results with students and parents.

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## **2. Module Description**

This module allows administrators and teachers to create exam schedules, enter student marks, calculate totals and grades, and generate report cards. It maintains an audit trail of all edits and provides a centralized view of exam performance for students, teachers, and parents.

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## **3. Users**

**Admin**

**Principal (view only)**

**Teachers**

**Students/Parents (view only)**

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## **4. Features**

Create and manage exam schedules per class/subject

Define maximum marks and weightages for exams

Enter and modify student marks (individual or bulk)

Calculate totals, grades, and generate report cards

View historical performance and exam summaries

Maintain an audit log of all marks entered or modified

**Export results and reports**

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## **5. Inputs / Outputs**

**Inputs:**

Exam schedules (dates, classes, subjects)

**Student marks per subject/exam**

**Grading criteria**

**Outputs:**

**Student report cards**

**Class-wise and subject-wise performance reports**

**Audit logs of marks and changes**

**Printable/exportable exam summaries**

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## **6. User Time & Workload**

**Teachers:** High usage during exam periods → core functionality

**Admin:** Moderate usage for scheduling and reports

**Students/Parents:** Frequent viewing of results

**→ Overall: High-priority module due to its impact on academic performance tracking.**

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# Module Name: Fees Management

## 1. Problem Statement

Manual fee tracking and payment recording is time-consuming, error-prone, and often leads to missed payments or incorrect records. Parents may not receive timely reminders, and accountants spend significant effort reconciling payments and generating reports.

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## 2. Module Description

This module enables accountants and admins to define fee structures, generate invoices, record payments, and track outstanding balances. Parents can view fee status, download receipts, and receive automated reminders for due payments.

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## 3. Users

**Accountant**

**Admin**

**Parents/Students (view only)**

**Principal (view only)**

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## 4. Features

Define fee structures per class (tuition, transport, miscellaneous)

Generate invoices for students/guardians

Record full or partial payments and issue receipts

View outstanding balances and payment history

Export finance summaries and generate basic reports

Send automated fee reminders to parents

Audit logs for all financial transactions

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## 5. Inputs / Outputs

**Inputs:**

Fee structure details

**Student/guardian details**

**Payment information (amount, date, mode)**

**Outputs:**

Generated invoices and receipts

Outstanding balances and payment history

Financial reports and exportable summaries

Automated payment reminders

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## **6. User Time & Workload**

**Accountants:** High daily usage → core module for financial management

**Admins:** Moderate usage for fee setup and reports

**Parents/Students:** Frequent viewing of invoices and payment status  
→ Overall: **High-priority module** due to its financial impact.

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# Module Name: Teacher Module

## 1. Problem Statement

Teachers often rely on multiple tools or manual processes to manage classes, mark attendance, enter grades, and communicate with parents. This leads to fragmented workflows, time loss, and inconsistent communication.

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## 2. Module Description

This module provides teachers with a centralized interface to manage their classes, access student profiles, record attendance, submit marks, share study materials, and communicate with parents. It streamlines daily classroom activities digitally.

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## 3. Users

Teachers

Admin (view only)

Principal (view only)

Parents/Students (view only)

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## 4. Features

Access class lists and detailed student profiles

Mark attendance and submit grades/marks

Share assignments, study materials, and notices

Request parent-teacher meetings

Send in-app messages or announcements to parents

View personal timetable and class schedules

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## 5. Inputs / Outputs

Inputs:

Attendance data

Marks/grades for students

Study materials, assignments, and notices

Messages or meeting requests

Attendance records

Updated student profiles with marks

Shared assignments or announcements

Communication logs with parents

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## 6. User Time & Workload

**Teachers:** Heavy daily usage → core module for classroom operations

**Admins/Principals:** Occasional monitoring

**Parents/Students:** Frequent viewing of updates and communications

→ Overall: **High-priority module** due to its role in teaching and parent interaction.

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# **Module Name: Parent Portal**

## **1. Problem Statement**

Parents often lack real-time access to their child's academic progress, attendance, fee status, and school communications. This causes delays in awareness, miscommunication, and extra effort in following up with teachers or administration.

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## **2. Module Description**

This module provides parents with a secure interface to view their child's academic and attendance records, fee status, report cards, and school announcements. It enables direct communication with teachers and access to downloadable documents.

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## **3. Users**

**Parents/Guardians**

**Students (view only)**

**Teachers/Admin (view only for communication)**

**Principal (view only)**

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## **4. Features**

View child's profile, attendance, marks, and timetable

Receive announcements and fee reminders

Download receipts and report cards

Communicate with teachers via messages

Update guardian contact information for notifications

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## **5. Inputs / Outputs**

**Inputs:**

Parent/guardian login credentials

Updated contact information

Messages sent to teachers

**Outputs:**

Child's attendance and academic performance reports

Fee invoices and payment status

School announcements and downloadable documents

Communication logs with teachers

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## **6. User Time & Workload**

**Parents/Guardians:** Frequent usage to monitor child's progress → core user

**Students:** Occasional viewing

**Teachers/Admin:** Minimal usage for responding to messages

→ Overall: **Medium-priority module for school communication and parental engagement.**

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