KoderEduAI

School Administration Guide

School Management System

Version 2.0

Modules Covered:

Dashboard | *Classes & Students* | *Attendance (AI-Powered)*

Academics & Examinations | *Finance & Online Payments*

HR & Staff Management | *Admissions CRM* | *Transport*

Library | *Notifications* | *LMS* | *Parent & Student Portals*

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1. Getting Started

1.1 Overview

KoderEduAI is a comprehensive School Management System that covers every aspect of school administration - from student enrollment and attendance tracking to finance, HR, academics, examinations, transport, library, and more. The system supports multiple user roles and provides dedicated portals for administrators, teachers, parents, and students.

1.2 User Roles

The system supports the following roles, each with different access levels:

Role	Access Level	Description
School Admin	Full School	Full access to school settings, data, and configuration
Principal	School-wide	View and manage school operations
Teacher	Assigned Classes	Attendance, marks entry, lesson plans
HR Manager	HR Module	Staff management, payroll, leave
Staff	Limited	Basic access, notifications
Parent	Parent Portal	View child's attendance, fees, results
Student	Student Portal	View own attendance, timetable, assignments

1.3 Logging In

1. Open the application URL in your web browser.
2. Enter your username/email and password on the Login page.
3. Click 'Sign In' to access your dashboard.
4. If you manage multiple schools, use the School Switcher (top bar) to select the active school.

First-Time Setup

Your school and admin account will be pre-configured by the platform team. Once you receive your School Admin credentials, log in and follow the Initial Setup steps in Chapter 2.

1.4 Navigating the Application

The application uses a sidebar navigation on the left side of the screen. The sidebar is organized into groups and expandable sections. On mobile devices, the sidebar collapses into a hamburger menu.

Top Bar Features

- School Switcher - Switch between schools if you have access to multiple schools
- Academic Year Switcher - Change the active academic year/session
- Notification Bell - View unread notifications
- User Menu - Profile settings, logout

Sidebar Groups (Admin/Teacher View)

- Dashboard - Main overview page
- Management - Classes and Students
- Attendance - Capture, Review, Register
- Academics - Subjects, Timetable, Sessions, Examinations, LMS
- Finance - Dashboard, Fee Collection, Expenses, Reports
- HR & Staff - Staff Directory, Departments, Payroll, Leave
- Admissions - CRM pipeline for new admissions
- Transport - Routes, Vehicles, Assignments
- Library - Book Catalog, Issue/Return, Overdue
- Notifications - Inbox, Templates, Send
- Settings - System configuration

2. Initial Setup - Order of Operations

Before using the system, you must set up foundational data in the correct order. Each step depends on the previous one being completed. Follow this sequence carefully.

Important Note

The setup order matters! For example, you cannot add students before creating classes, and you cannot create exams before setting up academic years and subjects. Follow the order below to avoid errors.

2.1 Step 1: Academic Year & Terms

Navigate to: Sidebar > Academics > Sessions

1. Log in with your School Admin credentials.
2. Navigate to Academics > Sessions in the sidebar.
3. In the 'Years' tab, click 'Add Academic Year'.
4. Enter: Name (e.g., '2025-2026'), Start Date, End Date.
5. Click 'Set as Current' to make it the active year.
6. Switch to the 'Terms' tab and click 'Add Term'.
7. Enter: Name (e.g., 'Term 1'), Term Type (Term/Semester/Quarter), Start Date, End Date, Order.
8. Add all terms for the academic year.

Why This Matters

Academic years and terms are required for exams, report cards, fee structures, and student promotions. Set this up first.

2.2 Step 2: Create Classes

Navigate to: Sidebar > Management > Classes

1. Navigate to 'Classes' in the sidebar under Management.
2. Click 'Add Class'.
3. Enter: Class Name (e.g., 'Class 5-A'), Section (e.g., 'A'), Grade Level (e.g., 'Grade 5').
4. Save the class. Repeat for all classes and sections.

5. Classes are displayed grouped by grade level. Use the 'Grid' toggle for an alternate view.

> **Tip**
> Create all sections for a grade. For example: Class 5-A, Class 5-B, Class 5-C. The grade level grouping will organize them automatically.

2.3 Step 3: Add Students

Navigate to: Sidebar > Management > Students

1. Navigate to 'Students' in the sidebar.
2. To add one student: Click 'Add Student' and fill in Name, Roll Number, Class, Parent Name, Parent Phone, Admission Number.
3. To bulk import: Click 'Import from Excel', download the template, fill it in, and upload.
4. Students will appear in the list. Use the class filter to view students by class.
5. You can export the student list as PDF, PNG, or Excel using the export buttons.

> **Important Note**
> Students must be assigned to a class. Make sure classes are created (Step 2) before adding students.

2.4 Step 4: Add Subjects

Navigate to: Sidebar > Academics > Subjects

1. Navigate to Academics > Subjects in the sidebar.
2. In the 'Subjects' tab, click 'Add Subject'.
3. Enter: Subject Name, Subject Code, Description, and whether it is an Elective.
4. Save. Repeat for all subjects taught in the school.
5. Switch to the 'Assignments' tab to assign subjects to classes.
6. Select a class, pick a subject, choose the teacher, set periods per week, then save.

2.5 Step 5: Create Timetable

Navigate to: Sidebar > Academics > Timetable

1. Navigate to Academics > Timetable.
2. Select a class to create its timetable.

3. Define time slots (period start time, end time).
4. Assign subjects and teachers to each period for each day of the week.
5. Save the timetable. Students and parents can now view it in their portals.

Prerequisite

Subjects must be assigned to classes (Step 4) before creating timetables.

2.6 Setup Checklist Summary

Step	What to Do	Prerequisite	Who Does It
1	Set up Academic Year & Terms	Logged into school	School Admin
2	Create Classes	None	School Admin
3	Add Students	Classes exist	School Admin
4	Add Subjects & Assign to Classes	Classes exist	School Admin
5	Create Timetable	Subjects assigned	School Admin

3. Attendance Module (AI-Powered)

The Attendance module uses AI-powered OCR to capture attendance from handwritten registers. Teachers upload photos of attendance registers, and the AI extracts student names and marks. The system supports review and approval workflows.

3.1 Capturing Attendance

Navigate to: Sidebar > Attendance > Capture & Review > Upload Tab

1. Navigate to the Attendance section and click 'Capture & Review'.
2. You will see three tabs: Upload, Review, and Approve. Select the 'Upload' tab.
3. Select the Class from the dropdown and pick the Date.
4. Upload an image of the handwritten attendance register (photo or scan).
5. Use the crop/zoom tool to frame the register area correctly.
6. Click 'Process' - the AI will extract student names and attendance marks (P, A, L, etc.).
7. Review the AI-extracted data on screen. Correct any errors if needed.
8. Click 'Submit' to save the captured attendance for review.

3.2 Reviewing Attendance

Navigate to: Sidebar > Attendance > Capture & Review > Review Tab

1. Switch to the 'Review' tab to see all pending attendance records.
2. Click on a record to see the side-by-side view: original image vs. extracted data.
3. Verify each student's mark. Edit any incorrect marks directly in the table.
4. Click 'Approve' to confirm the attendance or 'Reject' to send it back for re-capture.

3.3 Viewing the Attendance Register

Navigate to: Sidebar > Attendance > Register & Analytics

1. Navigate to 'Register & Analytics' under Attendance.
2. Select a class and date range to view the full attendance register.

3. The register shows a grid: students as rows, dates as columns, with marks in each cell.
4. Use the Analytics tab to view attendance trends, percentages, and accuracy metrics.

3.4 Attendance Mark Meanings

Symbol	Meaning	Status
P	Present	Student was in class
A	Absent	Student was not in class
L	Late	Student arrived late
Le	Leave	Student on approved leave
HD	Half Day	Student was present for half the day

Customization

You can customize attendance marks and their meanings in Settings > Mappings Tab. Add new symbols or change the default mapping.

4. Academics Module

4.1 Managing Subjects

Navigate to: Sidebar > Academics > Subjects > Subjects Tab

1. Click 'Add Subject' to create a new subject.
2. Fill in: Subject Name, Code (e.g., MATH, ENG), Description.
3. Check 'Is Elective' if the subject is optional for students.
4. Save. The subject appears in the list with AI-generated insights about workload.

Assigning Subjects to Classes

Navigate to: Sidebar > Academics > Subjects > Assignments Tab

5. Switch to the 'Assignments' tab.
6. Click 'Assign Subject' and select: Class, Subject, Teacher, Periods Per Week.
7. Save. This links the subject, teacher, and class together.
8. Repeat for all subject-class-teacher combinations.

4.2 Academic Sessions (Years & Terms)

Navigate to: Sidebar > Academics > Sessions

Academic sessions define the school calendar and are critical for exams, promotions, and reports.

Managing Academic Years

1. In the 'Years' tab, view all academic years.
2. Click 'Add Academic Year' to create a new one (Name, Start Date, End Date).
3. Click 'Set as Current' on the year you want to make active.
4. The year summary shows: number of terms, exams created, students enrolled.

Managing Terms

5. Switch to the 'Terms' tab.

6. Filter by Academic Year if needed.
7. Click 'Add Term' and fill in: Name, Type (Term/Semester/Quarter), Order, Dates.
8. Terms define when exams happen and how report cards are structured.

4.3 Student Promotion

Navigate to: Sidebar > Academics > Promotion

1. Select the source academic year and source class.
2. Select the target academic year and target class.
3. Review the list of students eligible for promotion.
4. Select students to promote (or select all).
5. Click 'Promote' to move them to the new class/year.

> **Important Note**
> Promotion is a bulk operation. Ensure the target academic year and classes exist before promoting.

4.4 AI Analytics

Navigate to: Sidebar > Academics > AI Analytics

The AI Analytics page provides intelligent insights about academic performance, subject workload balance, attendance correlation with grades, and more. Use it to identify struggling students and subjects that need attention.

5. Examinations Module

The Examinations module covers the complete exam lifecycle: defining grade scales, creating exam types, scheduling exams, entering marks, viewing results, and generating report cards.

5.1 Step 1: Define Grade Scale

Navigate to: Sidebar > Academics > Examinations > Grade Scale

1. Navigate to Grade Scale under Examinations.
2. Click 'Add Grade' and define each grade level.
3. For each grade, enter: Grade Name (A+, A, B+...), Min Marks, Max Marks, Grade Point (GPA).
4. Save all grades. This scale is used to auto-calculate student grades from marks.

Grade	Min %	Max %	Grade Point
A+	90	100	4.0
A	80	89	3.7
B+	70	79	3.3
B	60	69	3.0
C+	50	59	2.5
C	40	49	2.0
F	0	39	0.0

5.2 Step 2: Create Exam Types

Navigate to: Sidebar > Academics > Examinations > Exam Types

1. Click 'Add Exam Type'.
2. Enter: Type Name (e.g., 'Mid-Term Exam', 'Final Exam', 'Unit Test').
3. Set the weightage (how much this exam type counts toward the final grade).
4. Save. Exam types can be reused across terms and years.

5.3 Step 3: Create an Exam

Navigate to: Sidebar > Academics > Examinations > Exams

1. Click 'Create Exam'.
2. Select: Academic Year, Term, Class, Exam Type.
3. Enter: Exam Name, Start Date, End Date.
4. The exam status will be 'SCHEDULED' initially.
5. As the exam progresses, update status: SCHEDULED > IN_PROGRESS > MARKS_ENTRY > COMPLETED > PUBLISHED.

5.4 Step 4: Enter Marks

Navigate to: Sidebar > Academics > Examinations > Marks Entry

1. Select the Exam, Class, and Subject from the dropdowns.
2. The system loads all students in that class.
3. Enter marks for each student. The max marks are validated automatically.
4. Save marks. You can return and edit marks until the exam is published.
5. Bulk import from Excel is also available for large classes.

5.5 Step 5: View & Publish Results

Navigate to: Sidebar > Academics > Examinations > Results

1. Select the Exam and Class to view computed results.
2. Results show: Subject-wise marks, grades (auto-calculated from grade scale), GPA.
3. Review results for accuracy.
4. Click 'Publish Results' to make them visible to students and parents.

5.6 Step 6: Generate Report Cards

Navigate to: Sidebar > Academics > Examinations > Report Cards

1. Select the Academic Year, Term, and Class.
2. Choose individual student or entire class.

3. Preview the report card with all exam results, grades, and GPA.
4. Click 'Download PDF' to generate a printable report card.
5. Report cards can also be shared with parents through the Parent Portal.

Complete Exam Workflow

Grade Scale > Exam Types > Create Exam > Enter Marks > View Results > Publish > Report Cards. Each step depends on the previous one.

6. Finance Module

The Finance module manages all monetary aspects of the school including fee collection, expenses, account management, discounts, and financial reporting.

6.1 Setting Up Finance Accounts

Navigate to: Sidebar > Settings > Accounts Tab

1. Navigate to Settings and click the 'Accounts' tab.
2. Click 'Add Account' to create finance accounts.
3. Account types: CASH (physical cash), BANK (bank accounts), PERSON (individual accounts).
4. Enter: Account Name, Type, Opening Balance.
5. Check 'Staff Visible' if staff members should see this account.
6. Create at least one CASH and one BANK account before collecting fees.

6.2 Finance Dashboard

Navigate to: Sidebar > Finance > Dashboard

The Finance Dashboard provides a real-time overview of your school's financial health:

- Account Balances - Current balance of each cash, bank, and person account
- Fee Collection Summary - Total collected this month, pending amounts
- Expense Breakdown - Expenses categorized by type
- Recent Transfers - Latest inter-account transfers
- Monthly Trends - Charts showing income vs. expense trends

6.3 Generating Fee Structures

Navigate to: Sidebar > Finance > Fee Collection

1. Navigate to Fee Collection.
2. Click 'Generate Fee Structure' button.
3. Select the class(es) to generate fees for.
4. Define fee components: Tuition, Transport, Library, Lab, etc.

5. Set the amount for each component.
6. Choose frequency: Monthly, Quarterly, Annually.
7. Click 'Generate' - fee records are created for all students in selected classes.

6.4 Collecting Fees (Recording Payments)

Navigate to: Sidebar > Finance > Fee Collection

1. View the fee collection table showing all students and their payment status.
2. Use the search bar to find a student, or filter by class and payment status.
3. Click on a student's row to open the payment modal.
4. Enter: Amount Paid, Payment Method (Cash/Bank/Cheque/Online), Date, Account to credit.
5. Click 'Record Payment'. The student's balance updates immediately.
6. For bulk collection, select multiple students and use 'Bulk Collect'.

6.5 Managing Discounts & Scholarships

Navigate to: Sidebar > Finance > Discounts & Scholarships

1. Click 'Add Discount Rule'.
2. Define: Discount Name, Type (Percentage or Fixed Amount), Value.
3. Set eligibility criteria if applicable.
4. Apply discounts to individual students or in bulk.
5. Discounts automatically adjust the student's fee balance.

6.6 Recording Expenses

Navigate to: Sidebar > Finance > Expenses

1. Click 'Add Expense'.
2. Enter: Description, Category, Amount, Date, Account (which account pays).
3. Save. The expense is recorded and the account balance is updated.
4. Use category filters to view expenses by type.
5. Edit or delete expenses as needed.

6.7 Financial Reports

Navigate to: Sidebar > Finance > Reports

Generate comprehensive financial reports:

- Profit & Loss Statement - Revenue vs. expenses breakdown
- Cash Flow Analysis - Money in vs. money out over time
- Fee Collection Report - Class-wise and student-wise collection status
- Expense Report - Category-wise expense breakdown

6.8 Online Payment Collection

Navigate to: Sidebar > Finance > Payment Gateways

The system supports online fee payments through JazzCash, Easypaisa, and Manual bank transfers. Parents can pay fees directly from their portal once gateways are configured.

1. Navigate to Finance > Payment Gateways.
2. Configure at least one gateway (JazzCash, Easypaisa, or Manual) with valid credentials.
3. Click 'Test Connection' to verify credentials are correct.
4. Toggle the gateway to 'Active' and set one as the default.
5. Parents will now see a 'Pay Now' button on unpaid fees in their portal.
6. When a parent pays online, the system automatically records the payment and updates the fee balance.
7. Payment status is tracked: Initiated, Pending, Successful, or Failed.
8. View all online payments in the Payment History tab on the Payment Gateways page.

Payment Security

All payment transactions use cryptographic signatures (HMAC-SHA256 for JazzCash, SHA-256 for Easypaisa) to prevent tampering. Callback URLs are verified before updating payment status.

6.9 Inter-Account Transfers

1. On the Finance Dashboard, click 'Transfer'.
2. Select: Source Account, Destination Account, Amount, Description.
3. Click 'Transfer'. Both account balances update immediately.

6.10 Month Closing

Navigate to: Sidebar > Settings > Accounts Tab > Close Month

1. At the end of each month, click 'Close Month' in Settings > Accounts.
2. This finalizes the month's transactions and carries forward balances.
3. Closed months cannot be edited (prevents accidental changes to past records).

7. HR & Staff Management Module

The HR module manages the complete employee lifecycle from hiring to payroll. It includes staff directory, departments, salary structures, payroll processing, leave management, attendance tracking, performance appraisals, and document management.

7.1 Setting Up Departments

Navigate to: Sidebar > HR & Staff > Departments

1. Click 'Add Department'.
2. Enter: Department Name (e.g., 'Science', 'Administration', 'Sports').
3. Add designations within each department (e.g., 'Head of Department', 'Senior Teacher').
4. Save. Departments are used when adding staff members.

7.2 Adding Staff Members

Navigate to: Sidebar > HR & Staff > Staff Directory > Add Staff

1. Click 'Add Staff Member'.
2. Fill in Personal Information: First Name, Last Name, Email, Phone, Gender, Date of Birth.
3. Fill in Employment Details: Department, Designation, Employee ID, Employment Type (Full-time/Part-time/Contract), Date of Joining.
4. Add Address and Emergency Contact information.
5. Save. The staff member appears in the directory.

7.3 Staff Directory

Navigate to: Sidebar > HR & Staff > Staff Directory

The Staff Directory is the central hub for managing all staff information:

- Search by name, email, or employee ID
- Filter by department or employment status (Active, On Leave, Terminated)
- Click on a staff member to view/edit their complete profile
- Export directory as Excel or PDF

7.4 Salary Management

Navigate to: Sidebar > HR & Staff > Salary Management

1. Define salary structures per designation.
2. Set components: Basic Pay, HRA, DA, Allowances, Deductions.
3. Assign salary structures to staff members.
4. Salary structures feed directly into payroll generation.

7.5 Payroll Processing

Navigate to: Sidebar > HR & Staff > Payroll

1. Select the month and year for payroll.
2. Click 'Generate Payslips' to create payslips for all active staff.
3. Review generated payslips. Check amounts, deductions, and net pay.
4. Approve payslips individually or in bulk.
5. Mark approved payslips as 'Paid' once payment is disbursed.

7.6 Leave Management

Navigate to: Sidebar > HR & Staff > Leave Management

The leave system handles leave applications, approvals, and balance tracking:

1. Staff submit leave requests specifying: Leave Type, From Date, To Date, Reason.
2. HR Manager or Admin reviews the request.
3. Approve or reject the leave application with optional remarks.
4. Leave balances update automatically upon approval.
5. View leave history and balances for any staff member.

7.7 Staff Attendance

Navigate to: Sidebar > HR & Staff > Staff Attendance

1. Select the date to mark attendance.
2. Mark each staff member as Present, Absent, or On Leave.

3. Save. Staff attendance records feed into payroll calculations.

7.8 Performance Appraisals

Navigate to: Sidebar > HR & Staff > Performance Appraisals

1. Click 'Create Appraisal' and select the staff member.
2. Fill in performance criteria, ratings, and comments.
3. Submit the appraisal for review.
4. Appraisal history is maintained per staff member.

7.9 Staff Documents

Navigate to: Sidebar > HR & Staff > Documents

1. Select a staff member.
2. Upload documents: ID proofs, certificates, contracts, etc.
3. Documents are stored securely and accessible from the staff profile.

8. Admissions CRM Module

The Admissions CRM manages the complete student enrollment pipeline from initial enquiry to final enrollment. It tracks leads, followups, and conversion rates.

8.1 Admission Sessions

Navigate to: Sidebar > Admissions > Sessions

1. Click 'Add Admission Session' to define an admission window.
2. Enter: Session Name, Start Date, End Date, Intake Capacity per grade.
3. Active sessions determine which grades accept new admissions.

8.2 Creating Enquiries

Navigate to: Sidebar > Admissions > Enquiries

1. Click 'New Enquiry'.
2. Fill in: Student Name, Parent Name, Phone, Email, Target Grade.
3. Set Source: Walk-in, Phone, Website, Referral, Social Media, Advertisement, Other.
4. Set Priority: High, Medium, Low.
5. Add initial notes and save.

8.3 Admission Pipeline Stages

Each enquiry progresses through these stages:

Stage	Description
NEW	Initial enquiry received
CONTACTED	First contact made with parent
VISIT_SCHEDULED	School visit appointment set
VISIT_DONE	Parent/student visited the school
FORM_SUBMITTED	Application form submitted
TEST_SCHEDULED	Entrance test scheduled
TEST_DONE	Entrance test completed

Stage	Description
OFFERED	Admission offer extended
ACCEPTED	Parent accepted the offer
ENROLLED	Student officially enrolled

8.4 Managing Enquiries

List View

1. View all enquiries in a searchable, filterable table.
2. Filter by: Stage, Grade, Source, Priority.
3. Click an enquiry to view full details and update its status.

Kanban View

4. Switch to Kanban view for a visual pipeline.
5. Drag and drop enquiries between stages.
6. Get a quick overview of where all leads are in the pipeline.

8.5 Followup Management

1. Open an enquiry's detail page.
2. Add followup notes and schedule next followup dates.
3. The dashboard shows today's and overdue followups for quick action.

8.6 Converting Enquiry to Student

1. When an enquiry reaches the 'ENROLLED' stage, click 'Convert to Student'.
2. The system creates a student record from the enquiry data.
3. The student is automatically assigned to the target class.

8.7 Admission Dashboard

Navigate to: Sidebar > Admissions > Dashboard

The dashboard provides analytics:

- Pipeline Funnel Chart - Visual breakdown by stage
- Conversion Rate - Percentage of enquiries that become enrollments
- Source Analysis - Which channels bring the most enquiries
- Today's Followups - Enquiries needing attention today
- Overdue Followups - Past-due followup reminders

9. Transport Module

The Transport module manages school buses, routes, student-bus assignments, and daily transport attendance.

9.1 Setting Up Routes

Navigate to: Sidebar > Transport > Routes

1. Click 'Add Route'.
2. Enter: Route Name, Description, Start Location, End Location, Distance (km), Estimated Duration.
3. Save the route.
4. Click on the route to add Stops.
5. For each stop, enter: Stop Name, Address, Order, Pickup Time, Drop Time.
6. Save stops. They appear in the route's stop list in order.

9.2 Adding Vehicles

Navigate to: Sidebar > Transport > Vehicles

1. Click 'Add Vehicle'.
2. Enter: Registration Number, Vehicle Type (Bus/Van/Mini-Bus), Seating Capacity.
3. Enter Driver Details: Driver Name, Contact Number.
4. Assign the vehicle to a route.
5. Save. The vehicle is now linked to the route.

9.3 Assigning Students to Routes

Navigate to: Sidebar > Transport > Assignments

1. Click 'Assign Student'.
2. Select the student from the dropdown.
3. Select the route and pickup/drop stop.
4. Save. The student is now assigned to that bus route.

5. View all assignments in the list. Edit or remove as needed.

9.4 Transport Attendance

Navigate to: Sidebar > Transport > Attendance

1. Select the date and route.
2. Mark each student as: Picked Up, Not Picked Up, Absent.
3. Save attendance for the morning pickup.
4. Repeat for afternoon drop if needed.

9.5 Transport Dashboard

Navigate to: Sidebar > Transport > Dashboard

The Transport Dashboard shows:

- Total Routes - Number of active routes
- Total Vehicles - Fleet size
- Students Using Transport - Total students assigned to routes
- Today's Attendance - Today's pickup/drop statistics

10. Library Module

The Library module provides a complete book management system including cataloging, issuing/returning books, and tracking overdue items.

10.1 Setting Up Book Categories

Navigate to: Sidebar > Library > Catalog

1. On the Book Catalog page, click 'Manage Categories'.
2. Add categories: Fiction, Non-Fiction, Science, Mathematics, History, Reference, etc.
3. Categories help organize and filter the book catalog.

10.2 Adding Books to the Catalog

Navigate to: Sidebar > Library > Catalog

1. Click 'Add Book'.
2. Enter: Title, Author, ISBN, Publisher, Category, Total Copies, Shelf Location.
3. Save. The book appears in the catalog.
4. Use the search bar to find books by title, author, or ISBN.
5. Filter by category to browse specific sections.

10.3 Issuing Books

Navigate to: Sidebar > Library > Issue / Return

1. Click 'Issue Book'.
2. Select Borrower Type: Student or Staff.
3. Search and select the borrower (student name or staff name).
4. Search and select the book to issue.
5. Set the Due Date (typically 14 days from today).
6. Add optional notes and click 'Issue'.

7. The book's available copies count decreases by 1.

10.4 Returning Books

Navigate to: Sidebar > Library > Issue / Return

1. Find the issued book in the list (search by student name or book title).
2. Click 'Return' next to the entry.
3. Confirm the return. The book's available copies increase by 1.
4. If the book is overdue, any applicable fine is recorded.

10.5 Tracking Overdue Books

Navigate to: Sidebar > Library > Overdue Books

1. View all books that are past their due date.
2. See borrower details and number of days overdue.
3. Send reminders to borrowers.
4. Update due dates if an extension is granted.

10.6 Library Dashboard

Navigate to: Sidebar > Library > Dashboard

The Library Dashboard displays:

- Total Books - Total unique titles in the catalog
- Total Copies - Sum of all book copies
- Currently Issued - Books currently checked out
- Overdue Count - Books past their due date
- Categories - Number of book categories
- Most Issued Books - Popular titles chart

11. LMS - Learning Management System

The LMS module helps teachers create lesson plans, assign homework/projects, and track student submissions. It integrates with the Academics module.

11.1 Creating Lesson Plans

Navigate to: Sidebar > Academics > LMS > Lesson Plans

1. Click 'Create Lesson Plan'.
2. Select: Class, Subject (from assigned subjects).
3. Enter: Title, Description, Learning Objectives.
4. Set: Lesson Date, Duration (in minutes).
5. Add: Materials Needed, Teaching Methods.
6. Save as 'Draft' or 'Publish' immediately.
7. Published lesson plans are visible to other teachers for reference.

11.2 Creating Assignments

Navigate to: Sidebar > Academics > LMS > Assignments

1. Click 'Create Assignment'.
2. Select Class and Subject.
3. Enter: Title, Description, Instructions.
4. Set: Due Date, Maximum Marks.
5. Define submission criteria (file types, word count, etc.).
6. Save. The assignment appears in student portals immediately.

11.3 Reviewing Submissions

1. Click on an assignment to see student submissions.
2. For each submission, you can: View the submitted work, add comments, and assign a grade.

3. Use bulk grading to score multiple submissions quickly.
4. Grades feed into the student's academic performance record.

12. Notifications Module

The Notifications module enables school-wide communication with students, parents, and staff. Admins can create templates, send bulk notifications, and track delivery.

12.1 Viewing Notifications (All Users)

Navigate to: Sidebar > Notifications

1. Click the Notification Bell icon in the top bar for quick view.
2. Or navigate to 'Notifications' in the sidebar for the full Inbox.
3. Unread notifications are highlighted. Click to mark as read.

12.2 Creating Notification Templates (Admin)

Navigate to: Sidebar > Notifications > Templates Tab

1. Switch to the 'Templates' tab.
2. Click 'Create Template'.
3. Enter: Template Name, Subject, Body (supports variables like {student_name}).
4. Save. Templates can be reused when sending notifications.

12.3 Sending Notifications (Admin)

Navigate to: Sidebar > Notifications > Send Tab

1. Switch to the 'Send' tab.
2. Choose recipients: All Students, All Parents, All Staff, Specific Class, or Individual.
3. Select a template or compose a custom message.
4. Preview the notification.
5. Click 'Send'. Notifications are delivered to all selected recipients.

12.4 Notification Analytics (Admin)

Navigate to: Sidebar > Notifications > Analytics Tab

Track notification effectiveness:

- Delivery Rate - How many notifications were successfully delivered
- Read Rate - Percentage of notifications opened/read
- Breakdown by type and recipient group

12.5 Automated Notifications (Scheduled)

The system automatically sends scheduled notifications without manual intervention. These are powered by Celery Beat, a background task scheduler.

Notification	Schedule	Recipients
Fee Reminders	5th of every month at 9 AM	Parents with pending fees
Overdue Fee Alerts	Every Monday at 10 AM	Parents with overdue fees
Daily Absence Summary	Every day at 5 PM	School administrators
Failed Notification Retry	Every 5 minutes	System (auto-retries failed sends)
Old Upload Cleanup	Every Sunday at 2 AM	System (deletes uploads > 90 days)
Failed OCR Retry	Every 6 hours	System (retries failed OCR jobs)

No Action Required

Automated notifications run on their own once the system is deployed. School administrators do not need to trigger them manually. They can be monitored in the Notification Analytics tab.

13. Parent Portal

Parents have a dedicated portal to monitor their children's school activities. Parents can view attendance, fees, timetable, exam results, and communicate with the school.

13.1 Parent Dashboard

Navigate to: Login as Parent > Dashboard

After logging in, parents see their dashboard with:

- List of linked children (if multiple children attend the school)
- Quick action cards for common tasks (Apply Leave, Messages)
- Recent notifications from the school

13.2 Viewing Child's Information

1. Click on a child's name to see their overview page.
2. The overview shows: Profile photo, class, roll number, quick stats.

Attendance

Navigate to: Parent Portal > Child > Attendance

3. Click 'Attendance' to view the child's attendance records.
4. See monthly and daily breakdowns with Present/Absent/Late counts.
5. View attendance percentage and trends.

Fees & Online Payments

Navigate to: Parent Portal > Child > Fees

6. View fee balance, payment history, and outstanding amounts.
7. See due amounts and upcoming fee deadlines.
8. Download fee receipts for past payments.

Paying Fees Online

Navigate to: Parent Portal > Child > Fees > Pay Now

9 If the school has configured online payment gateways, a 'Pay Now' button appears next to each unpaid fee.

10 Click 'Pay Now' on the fee you wish to pay.

11 A modal appears showing available payment methods (e.g., JazzCash, Easypaisa, Manual Transfer).

12 Select your preferred payment method and click 'Proceed to Pay'.

13 For JazzCash/Easypaisa: You will be redirected to the gateway's checkout page to complete payment.

14 For Manual Transfer: Bank account details are displayed. Make the transfer and inform the school office.

15 After payment, you are redirected to a Payment Result page showing the transaction status.

16 Payment statuses: Successful (green), Pending (yellow - being verified), Failed (red - try again).

17 Pending payments are automatically verified within a few minutes. The page auto-refreshes.

> **Online Payment Availability**
>
> Online payments are only available if your school's administration has configured payment gateways. If you don't see the Pay Now button, contact the school office.

Timetable

Navigate to: Parent Portal > Child > Timetable

18 View the child's class timetable.

19 See subjects, teachers, and period timings for each day.

Exam Results

Navigate to: Parent Portal > Child > Results

20 View exam marks and grades (once published by the school).

21 See subject-wise performance and GPA.

22 Download report cards as PDF.

13.3 Applying for Leave

Navigate to: Parent Portal > Leave Application

1 Click 'Apply for Leave' in the sidebar.

2 Select the child, enter: From Date, To Date, Reason.

3 Submit the application. Track its status (Pending, Approved, Rejected).

13.4 Messages

Navigate to: Parent Portal > Messages

Parents can send and receive messages from the school administration.

14. Student Portal

Students have their own portal to view attendance, timetable, assignments, fees, exam results, and manage their profile.

14.1 Student Dashboard

Navigate to: Login as Student > Dashboard

The Student Dashboard displays:

- Welcome card with student name and class
- Attendance rate (percentage)
- Assignment stats (pending, submitted, graded)
- Fee balance summary
- Today's timetable
- Upcoming assignment deadlines

14.2 My Attendance

Navigate to: Student Portal > Attendance

1. View your attendance history with monthly/daily breakdown.
2. See attendance percentage and trend over time.

14.3 My Timetable

Navigate to: Student Portal > Timetable

1. View your class timetable for each day of the week.
2. See subject names, teacher names, and period timings.

14.4 My Assignments

Navigate to: Student Portal > Assignments

1. View all assignments from your teachers.
2. See due dates and submission status.

3. Submit your work before the deadline.
4. View grades and teacher feedback after review.

14.5 My Fees

Navigate to: Student Portal > Fees

1. View your fee balance and payment history.
2. See upcoming due dates.

14.6 My Results

Navigate to: Student Portal > Results

1. View your exam marks and grades.
2. See subject-wise performance.
3. Download report cards as PDF.

14.7 My Profile

Navigate to: Student Portal > My Profile

1. View and update your profile information.
2. See contact details and class information.

15. Settings & Configuration

The Settings page allows School Admins to configure system behavior. Settings are divided into multiple tabs.

15.1 Attendance Mark Mappings

Navigate to: Sidebar > Settings > Mappings Tab

1. View the current mark-to-status mappings (e.g., P = Present, A = Absent).
2. Click 'Add Mapping' to add a new custom symbol.
3. Enter the symbol and select the status it maps to.
4. Use 'AI Suggestions' to get recommendations for common symbols.
5. Set a Default Status for unrecognized marks captured by AI.

15.2 Register Configuration

Navigate to: Sidebar > Settings > Register Config Tab

Configure how the AI reads attendance registers:

- Date Header Row - Which row contains the dates
- Student Name Column - Which column has student names
- Roll Number Column - Which column has roll numbers
- Data Start Row/Column - Where the attendance marks begin
- Orientation - Whether students are in rows or columns

15.3 Finance Accounts Management

See Chapter 6 (Finance Module) > Setting Up Finance Accounts for detailed instructions.

15.4 Payment Gateway Configuration

Navigate to: Sidebar > Finance > Payment Gateways

Configure online payment gateways to allow parents to pay fees directly from the Parent Portal. The system supports JazzCash, Easypaisa, and Manual (bank transfer) payment methods.

1. Navigate to Finance > Payment Gateways in the sidebar.
2. You will see gateway cards for each supported provider (JazzCash, Easypaisa, Stripe, Razorpay, Manual).
3. Click on a gateway card to configure it. Enter the required credentials.

JazzCash Configuration

4. Enter: Merchant ID (provided by JazzCash, e.g., MC12345).
5. Enter: Password (JazzCash merchant password).
6. Enter: Integrity Salt (used for HMAC-SHA256 signing of payment requests).
7. Select Environment: Sandbox (for testing) or Production (for live payments).
8. Return URL is auto-filled by the system.

Easypaisa Configuration

9. Enter: Store ID (provided by Easypaisa, e.g., 12345).
10. Enter: Merchant Hash Key (used for hash verification).
11. Select Environment: Sandbox or Production.

Manual/Bank Transfer Configuration

12. Enter: Bank Name, Account Title, Account Number, IBAN (optional), Branch.
13. Add Payment Instructions for parents (e.g., 'Deposit at any HBL branch').
14. Parents will see these bank details when choosing the Manual payment option.

Gateway Management

15. Click 'Test Connection' on a gateway card to verify your credentials are valid.
16. Toggle a gateway on/off using the active/inactive toggle button.
17. Click 'Set as Default' to make a gateway the pre-selected option for parents.
18. Only active gateways are shown to parents on the fee payment page.

> **Sensitive Data**
>
> Gateway credentials (passwords, salts, hash keys) are stored securely and masked in the UI (only the first 4 characters are visible). They are never exposed in API responses.

16. Module Dependencies - Quick Reference

This chapter provides a quick reference for how modules depend on each other. Understanding these dependencies helps you set up and use the system efficiently.

16.1 Dependency Map

Module / Feature	Depends On	Must Be Set Up First
Students	Classes	Create classes before adding students
Attendance	Classes, Students	Need classes with students enrolled
Subjects	Classes (for assignment)	Create classes first
Timetable	Subjects assigned to classes	Assign subjects to classes
Exam Types	None	Can be created independently
Exams	Academic Year, Terms, Classes	Set up sessions and classes
Marks Entry	Exams, Subject Assignments	Create exam and assign subjects
Results	Marks entered	Enter all marks for the exam
Report Cards	Results published	Publish exam results first
Grade Scale	None	Create before entering marks
Fee Structures	Classes, Students	Need students in classes
Fee Collection	Fee Structures, Accounts	Generate fees, set up accounts
Expenses	Finance Accounts	Create accounts first
Payroll	Staff, Salary Structures	Add staff and define salaries
Leave Mgmt	Staff Members	Add staff first
Admissions	Admission Sessions	Create admission session
Transport Assign.	Routes, Vehicles, Students	Set up routes and vehicles
Library Issues	Books in Catalog, Students	Add books and students
LMS Lessons	Subjects assigned to classes	Assign subjects first
Assignments	Classes, Subjects	Create classes and subjects
Notifications	Users exist	Create user accounts
Promotion	Academic Years, Classes	Need source and target setup

16.2 Recommended Setup Order (Complete)

Follow this complete order when setting up your school:

1. Create Academic Year and Terms
2. Create Classes (all grades and sections)
3. Add Students (individual or bulk import)
4. Create Subjects
5. Assign Subjects to Classes with Teachers
6. Create Timetable for each class
7. Define Grade Scale
8. Set up Finance Accounts (Cash, Bank)
9. Generate Fee Structures
10. Create HR Departments and Designations
11. Add Staff Members
12. Define Salary Structures
13. Set up Transport Routes and Vehicles
14. Set up Library Categories and Books
15. Configure Attendance Settings (Mappings)
16. Create Notification Templates
17. Set up Admission Sessions (if using Admissions CRM)

After Setup

Once the initial setup is complete, daily operations include: capturing attendance, collecting fees, recording expenses, entering marks, managing transport attendance, issuing library books, and processing admissions.

17. Daily Operations Workflow

Once the system is fully set up, here is a guide to the typical daily, weekly, monthly, and term-based operations.

17.1 Daily Tasks

Task	Who	Module	Navigation
Mark student attendance	Teacher	Attendance	Attendance > Upload
Review AI-captured attendance	Admin	Attendance	Attendance > Review
Record fee payments	Admin/Staff	Finance	Finance > Fees
Mark staff attendance	HR	HR	HR > Attendance
Mark transport attendance	Transport	Transport	Transport > Attendance
Issue/Return library books	Librarian	Library	Library > Issues
Check notifications	All	Notifications	Bell icon / Inbox
Follow up on admissions	Admin	Admissions	Admissions > Enquiries

17.2 Weekly Tasks

- Review attendance analytics and identify students with low attendance
- Check overdue library books and send reminders
- Review and update admission pipeline
- Process leave applications

17.3 Monthly Tasks

- Generate and process staff payroll
- Close financial month in Settings
- Review financial reports (P&L, cash flow)
- Generate fee reminders for unpaid balances
- Review staff performance (if applicable)

17.4 Term / Semester Tasks

- Create exams for the term
- Enter marks after exams are conducted
- Publish results
- Generate and distribute report cards
- Conduct student promotions (end of year)
- Set up the new academic year and terms

18. Tips & Best Practices

18.1 Data Entry Tips

- Use bulk import (Excel) for students when starting with a large number of records
- Use the search and filter features to quickly find records in any list
- Export data regularly as backups (Excel, PDF)

18.2 Attendance Tips

- Take clear, well-lit photos of attendance registers for best AI OCR results
- Ensure the register is flat and not crumpled when photographing
- Use the crop tool to focus on the data area only
- Always review AI-extracted data before approving

18.3 Finance Tips

- Set up accounts before the start of the academic year
- Close months regularly to maintain accurate records
- Use discounts/scholarships feature instead of manual fee adjustments
- Generate financial reports monthly for oversight

18.4 Security Tips

- Use strong, unique passwords for each user account
- Log out when leaving the computer unattended
- Only School Admins should manage modules and user permissions
- Regularly review user access and deactivate unused accounts