

Education System Class Diagram Documentation

Purpose:

This class diagram models the core components and relationships of a School/Education Management System. It illustrates the primary roles (Admin, Teacher, Principal, Accountant) and the student entity, along with their attributes, behaviors (methods), and interactions.

Classes and Responsibilities:

1. Admin

- Attributes: adminID, name
- Methods:
 - studentEnrollment() – Registers new students into the system.
 - staffEnrollment() – Registers new staff members (teachers, accountants, etc.).
 - staffAttendance() – Records attendance of staff members.
 - evaluateStaffPerformance() – Assesses staff performance.
- Relationships:
 - Manages Student enrollment.
 - Manages Teacher administration.

2. Teacher

- Attributes: teacherID, name, subject
- Methods:
 - keepStudentAttendance() – Tracks student attendance.
 - keepStudentRecord() – Maintains academic records of students.
 - evaluateStudentPerformance() – Evaluates student grades and performance.
 - generateReports() – Prepares reports and notices.
- Relationships:
 - Evaluates and tracks attendance of Students.

3. Principal

- Attributes: principalID, name

- Methods:
 - viewTeacherPerformance() – Monitors teacher performance.
 - viewStudentPerformance() – Monitors student performance.
- Relationships:
 - Monitors Teachers and Students.

4. Accountant

- Attributes: accountantID, name
- Methods:
 - manageStudentFinance() – Handles student fee transactions.
 - manageStaffFinance() – Manages staff salary payments.
- Relationships:
 - Manages finances for Students and Teachers.

5. Student

- Attributes: studentID, name, class, attendance, performance
- Relationships:
 - Linked with Admin for enrollment.
 - Linked with Teacher for evaluation and attendance.
 - Linked with Principal and Accountant for monitoring and finance.

Key Relationships:

- Admin → Student : enrollment (1-to-many)
- Admin → Teacher : management (1-to-many)
- Teacher → Student : evaluation & attendance (1-to-many)
- Principal → Teacher : monitors (1-to-many)
- Principal → Student : monitors (1-to-many)
- Accountant → Student : fees (1-to-many)
- Accountant → Teacher : salaries (1-to-many)

