1. User (Abstract Class)

Attributes

- + userId: String
- + name : string
- + email : String
- - password : String
- + role : String

Methods

- + login() : boolean
- + logout() : void
- + viewDashboard() : void

2. Student

Attributes

- + rollNo : String
- + department : String
- + cgpa : float

Methods

- + submitAssignment() : void
- + applyForReevaluation() : void
- + submitLeaveRequest() : void
- + viewAttendance() : void
- + calculateCGPA() : float

3. Faculty

Attributes

- + facultyId : String
- + department : String

Methods

- + reviewAssignment() : void
- + evaluateAssignment() : void
- + assignMarks() : void

- + manageCourses() : void

- + markAttendance() : void

- + uploadStudyMaterial() : void

4. Admin
Attributes

- + adminId : String

Methods

- + onboardUser() : void

- + configureWorkflow() : void

- + defineSLA() : void

- + manageRecords() : void

- + assignRoles() : void

- + monitorSystem() : void

- + publishAnnouncement() : void

5. Assignment
Attributes

- + assignmentId : String

- + title : String

- + submissionDate : Date

- + status : String

- + grade : float

Methods

- + validateAssignment() : boolean

- + assignSupervisor() : void

- + updateStatus() : void

6. ReEvaluationRequest
Attributes

- + requestId : String

- + subject : String

- + currentGrade : float

- + updatedGrade : float

- + status : String

Methods

- + checkEligibility() : boolean

- + assignReviewer() : void

- + updateGrade() : void

7. Attendance

Attributes

- + attendanceId : String

- + totalClasses : int

- + presentCount : int

Methods

- + updateAttendance() : void

- + calculateAttendancePercentage() : float

8. Document

Attributes

- + documentId : String

- + fileName : String

- + fileType : String

- + filePath : String

Methods

- + uploadDocument() : void

- + downloadDocument() : void

9. Notification

Attributes

- + notificationId : String

- + message : String

- + timestamp : Date

Methods

- + sendNotification() : void

10. Inheritance

- Student inherits from User

- Faculty inherits from User

- Admin inherits from User

11. Association Relationships

User - Notification

- Type: Association

- Meaning: User receives notifications

- Multiplicity: One User → Many Notifications (1 : 0..*)

Faculty - Assignment

- Type: Association

- Meaning: Faculty reviews assignments

Faculty - ReEvaluationRequest

- Type: Association

- Meaning: Faculty evaluates reevaluation requests

Student - Assignment

- Type: Association

- Meaning: Student submits assignments

Student - ReEvaluationRequest

- Type: Association

- Meaning: Student raises reevaluation requests

12. Aggregation / Composition

Assignment — Document

- Type: Composition (Strong containment)

- Meaning: Assignment contains documents

Student — Attendance

- Type: Association (can also be treated as aggregation logically)

- Meaning: Student has attendance record