

This class diagram represents an **Online College Management System** with the following key components:

### **Main Classes and Their Roles**

**User** - The base class representing all system users with basic information (userID, name) and authentication methods (login, logout, updateProfile).

**Administrator** - Manages the entire system with capabilities to update credentials, add/delete users, update user information, manage subjects and themes, assign subjects to students, review results, approve results, and delete users.

**Lecturer** - Creates and manages educational content including exam subjects, questions, and class reports. Can add/delete/modify exam IDs and questions, define questions for exams, set deadlines, modify exam IDs, generate class reports, and analyze student performance.

**Student** - Takes exams and views results. Can view available exams and their names, view course details, request certificate corrections, and submit exam answers with feedback.

### **Supporting Classes**

**Subject** - Represents courses/subjects with an ID and name, containing a method to get details.

**Exam** - Represents assessments with ID, start time, and duration. Students can take exams and submit answers.

**Question** - Individual exam questions with ID, text, and type.

**Grade** - Stores assessment results including exam ID, student ID, score, and feedback for each student's exam attempt.

### **Relationships**

- Administrator manages both Lecturers and Students
- Lecturers teach Subjects and create Exams
- Students take Exams and receive Grades
- Exams contain Questions and generate Grades

