

COURSE MANAGEMENT SYSTEM

USING JAVA FX

User Authentication

The system supports secure login functionality for three distinct user roles:

- **Student**
- **Teacher**
- **Admin**

Each user must log in using a **unique user ID and password**, authenticated through a networked login system with input data sourced from external files serving as the user database.

User Roles and Functionalities

1. Student Dashboard

Upon successful login, a student can:

- View **enrolled courses** and their corresponding updates
- Access **resources** shared by assigned teachers
- View **teacher profiles** for each enrolled course
- **Download files** uploaded by teachers
- **Apply for new courses** (pending teacher approval)

2. Teacher Dashboard

A logged-in teacher is able to:

- View and manage the list of students enrolled in their assigned courses
- Upload **learning resources or files**
- Approve or reject **course enrollment requests** from students

3. Admin Dashboard

The admin has elevated privileges, including:

- Assigning teachers to specific courses
- Managing global course offerings
- Overseeing the structure of student-teacher-course relationships

Data Management

- All core data (users, courses, enrollments) is maintained in **external files** which act as the system's persistent storage.
- These files serve as the backend database, loaded and parsed during runtime.

Networking & File I/O

- The login mechanism is to be implemented over a **networked interface**, simulating a client-server authentication flow.
- **File I/O** is used extensively to read/write user information, course details, and enrollment statuses.

Further updates in the specification is likely to be done over time .

A Project By

2305151

2305180