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GitHub_Link : <https://github.com/Hamdi164/Education-Management-System/>

This code implements a user management system for an educational institution. It defines classes for users, courses, assignments, and various functionalities for managing them.

Classes:

- **User:** Represents a user in the system with attributes like user_id, username, password, email, and role. It also includes methods for user creation and deletion (admin only).
- **Student (inherits from User):** Represents a student user with methods for registering and unregistering from courses, and submitting assignments.
- **Doctor (inherits from User):** Represents a doctor/instructor user with methods for creating, viewing, and editing courses.
- **AdminUser (inherits from User):** Represents an admin user with methods for creating and deleting users.
- **Course:** Represents a course with attributes like name, code, start date, end date, and unregister deadline. It includes methods for creation and editing (doctor only).
- **Assignment:** Represents an assignment with attributes like name, ID, course ID, and due date. It includes methods for creation and viewing (doctor only).

Functionalities:

- **login():** Prompts the user for credentials and validates them to log in.
- **signup():** Allows users to create new accounts with different roles (student, doctor, admin).
- **main_menu(user):** Presents a menu based on the user's role (student, doctor, admin) and returns the appropriate menu class.
- **StudentMenu:** Provides options for students to register/unregister from courses, view assignments, and submit assignments.
- **DoctorMenu:** Provides options for doctors to create, view, and edit courses.
- **AdminMenu:** Provides options for admins to create and delete users.

Additional Notes:

- The code uses RoleMixin to restrict access to certain methods based on user roles.
- User data and course/assignment data are stored in JSON files.
- File paths are constructed dynamically for user data, courses, assignments, and submissions.
- Error handling is implemented for various operations (e.g., file not found, invalid data).