Backend Task

Add Course Entity:
- Create a new entity/table for courses, including fields such as course_id, course_name, course_code, course_duration, etc.
- Set up a foreign key relationship between the "Student" table and the "Course" table. This means each student is associated with a specific course.

Enhance Student Registration:
- During student registration, include an additional field for selecting the course.
- Ensure that the selected course exists in the database before allowing registration.

Show Student Details with Course Information:
- When retrieving all student records, include information about the associated course.
- Return the data in a structured format, including details about the student and the course they are enrolled in.

Show all Students Details Enrol in the Course:
- Display the Details of the Students in the course with the course available in the database

Edit Student Details with Course Modification:
- Extend the endpoint for updating student details to allow modification of the associated course as well.
- Validate and update the corresponding records in both the "Student" and "Course" tables.

Delete Students with Course Deletion:
- When deleting a student, consider the implications for the associated course. Depending on your application's requirements, you may choose to:
- Cascade the deletion, removing the associated course as well.
- Restrict deletion if the student is associated with a course.

Include Transaction Management:
- Implement transaction management to ensure data consistency. For example, if an error occurs during the update of a student's information or the associated course, rollback the entire transaction to maintain data integrity.

Handle User Authentication Roles:
- Implement user roles (e.g., admin login, student login). Only allow certain roles to perform actions like editing and deleting student records.

Submission Guidelines:
Provide a clear and concise readme file explaining how to run the application.
Include screenshots or a live demo link showcasing responsiveness and functionality.
Ensure that the application adheres to best practices for web development.

Backend Task

Tips:
- You can use any Programming language no restriction Even you can show the output on command line
- Use modern technology like Django ,Flask , Java Spring boot , Java Dynamic Web Project , Java Etc.
- Implement the correct logic and Validations
- Give the proper Database DataTypes
- Focus on Backend Instead of Frontend
- If you are also interested in Frontend you can do the best design also for this task using any Technology/FrameWork like Reactjs, Bootstrap etc.
- Add the Project code on Git