Requirements Check List

0/65 completed

✓	Date	Task
	7/9	Authentication Guards
	8/9	Authorization Guards
		Login (Student +Instructor)
		Register (Student +Instructor)
		update personal information (Student+Instructor)
		Update course information(instructor)
		delete a course(instructor+admin)=> make it unavailble won't actually be deleted from DB
		delete a user (each user can delete himself/ Admin)
		Each course has keywords added by instructor to be used for searching
		view enrolled courses (Student)
		view enrolled courses (Student)
		view enrolled courses of a student (Instructor)
		track completed courses (Student : his own courses)
		track completed courses (instructor:number of students who completed each of his courses)
		monitor average scores (Student:his own)
		monitor average scores (Instructor: For a certain course)
		create course modules (Instructor)
		upload multimedia resources (videos, PDFs) to a module (Instructor) hint=> Check nest streaming files for this
		Edit Modules data (e.g : difficulty level)
		organize content hierarchically (Instructor) based on date
		Enable instructors to update course content : Flag a resouce as an outdated (instructor)
		If that content is outdated, students shouldn’t be able to see it, but instructors can
		search for a certain course by name (student+ instructor)
		search for a certain student by name (instructor)
		search for a certain instructor (student)
		Each student based on his performance metric can see modules with difficulty level matching his perofamnce metric
		Each Module has a quiz
		Each Module has a question bank created by instructor
		Instructor can update a question from the question bank
		Instructor can delete a question from the question bank
		quizzes are generated based on a student performance (SEE FAQ FOR MORE DETAILS)
		The instructor initiates the creation of quizzes deciding the number of questions per quiz and type of the questions.
		The instructor must choose whether the questions to be generated are MCQ only or True or false only or both.
		Instructor can edit a quiz if no students initiated taking that quiz (number of questions and its types)
		Instructor can delete a quiz if no students initiated taking that quiz (number of questions and its types)
		quizzes are initiated (CREATED)when a student start taking a quiz

	quizzes are generated with the number and types of questions the instructor specified
	Questions are retireved from the module question bank with the same numbers and types identifed by the instructor
	Questions are randomly generated (Each student get a different version based on his performance)
	Instant feedback on quizzess, highlighting correct answers => Student scores and which answers were right and which were wrong
	if a student fails a module’s quiz the system shall advise the student to get back to the module’s content and study it again.
	Student Dashboard: course completion rates, average scores(Perfomance metric)
	Instructor Analytics:Reports on student engagement:a.Number of enrolled students in a course. b. Number of students completed the course. c. Numbers of students based on their performance metric (Below average, Average, Above Average, Excellent).
	Instructor Analytics: Reports on content effectiveness: a. Rating for each module in the course. b. Rating for the course in general. (Average of modules' ratings) c. Rating for the instructor.
	Reports on and assessment results: a. Reports on each quiz results
	Downloadable analytics for external use for instructors only.
	• Secure Authentication: – Use JSON Web Tokens (JWT) for secure login and session management. – Passwords stored with hashing using bcrypt to ensure data integrity.
	Role-Based Access Control (RBAC): – Implement middleware (Guard) in the backend to control access to APIs based on user roles (student, instructor, admin).
	• Data Backup: – Simple scheduled backups of critical data (e.g., user accounts, course progress) to prevent loss.(Admin)
	Enable Instructors to communicate with students for queries and discussions (Instructors create forums in the form of posts and comments on it like piazza)
	Students can also form study groups and chat with peers (Group chat)
	Course can have multiple group chats.
	Instructors can join group chats
	One to one chats between a student and another
	Forums for course-specific discussions moderated by instructors: Students forums can be deleted by instructor
	Student can edit and delete his forums
	Instructor can edit and delete his forums
	Students and instructors receive notifications for new messages, replies, or (announcements:Instructor forums notifications)
	Chat history and forum discussions are saved for future reference
	DataScience Feature: Recommendation system that recommend courses related to students preferences e.g: Recommend deep learning related courses for those interested in AI
	Information Security Feature : use biometric authentication during exams to secure student identity
	Information Security Feature biometric data is encrypted and safe
	Software Engineering: Students can create, edit and delete quick notes tied to specific modules
	Software Engineering: notes are autosaved to prevent data loss
	Software Engineering: Instructors enable personal space for students to take notes to enhance their learning process