# 1. Project Proposal

- **Project Title**: EduHub – Learning Management System (LMS)

- **Objectives**:

    o Build a basic LMS that allows users to browse courses, enroll, and take quizzes.

    o Provide an admin panel for managing courses and users.

    o Ensure the system is simple, scalable, and easy to maintain.

- **Scope**:

    o **In Scope**:

        ▪ User authentication (registration, login, roles).

        ▪ Course listing and enrollment.

        ▪ Quiz functionality and progress tracking.

        ▪ Admin panel for course and user management.

    o **Out of Scope**:

        ▪ Live chat between Admins and Student

        ▪ Advanced features like certificates, forums, or live classes.

- **Target Audience**:

    o Students: Browse courses, enroll, and take quizzes.

    o Admins: Manage courses, users, and quizzes.

- **Technology Stack**:

    o **Backend**: ASP.NET Core, Entity Framework Core.

    o **Frontend**: Bootstrap, jQuery.

    o **Database**: SQL.

    o **Authentication**: ASP.NET Identity.

- **Deliverables**:

    o A fully functional LMS with course listing, enrollment, quizzes, and admin panel.

    o Documentation (user manual, setup guide).

2. Project Plan

Timeline :

Week	Tasks	Deliverables
Week 1	Project setup, course listing, user authentication.	Basic course listing page, user registration/login functionality.
Week 2	Course enrollment, admin panel, role-based access control.	Course enrollment system, admin dashboard for course and user management.
Week 3	Quiz functionality, progress tracking.	Quiz system with scoring, progress tracking dashboard for students.
Week 4	UI enhancements, testing, deployment.	Polished UI, tested system deployed on Azure or Heroku, project documentation.

Gantt Chart:
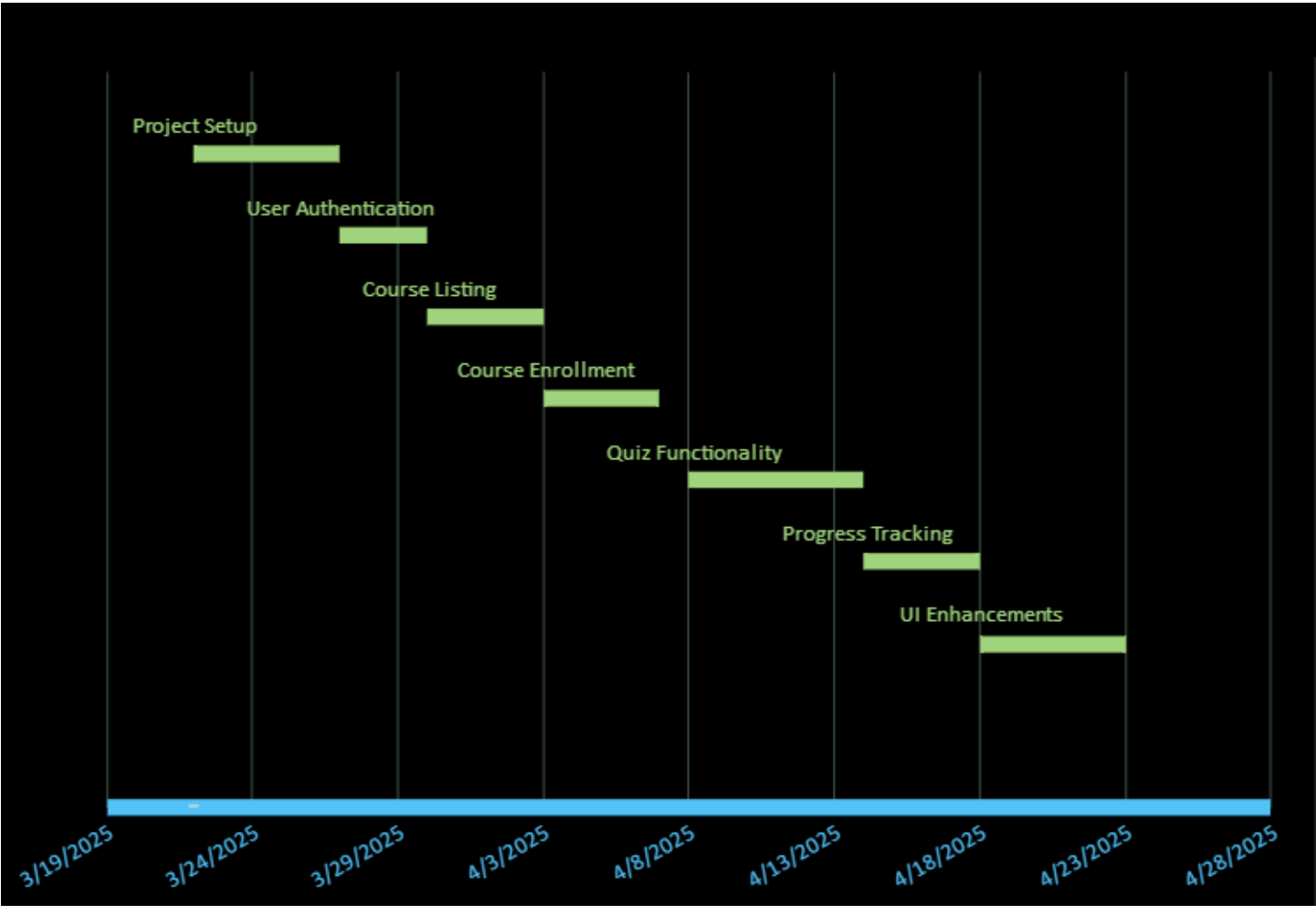
Milestones:

1. **Week 1**: Basic course listing and user authentication.

2. **Week 2**: Course enrollment and admin panel.

3. **Week 3**: Quiz functionality and progress tracking.

4. **Week 4**: Deployment and documentation.

Resource Allocation:

- **Developers**: 5.

- **Project Manager**: 1 (to oversee timelines and deliverables).

- **Tester**: 1 (for testing functionality).

3. Task Assignment & Roles

Define the responsibilities for each team member.

Roles and Responsibilities:

Role	Responsibilities
Backend Developer	Implement course listing, enrollment, quizzes, and progress tracking using ASP.NET Core and EF Core.
Frontend Developer	Design and implement the UI using Bootstrap and jQuery. Ensure responsiveness and usability.
Project Manager	Oversee the project timeline, ensure deliverables are met, and manage communication.
Tester	Test the system for bugs, usability issues, and performance.

Task Assignment:

Task	Assigned To
Setup project and database schema	Backend Developer
Implement user authentication	Backend Developer
Design course listing page	Frontend Developer
Implement course enrollment	Backend Developer
Create admin panel	Backend Developer
Implement quiz functionality	Backend Developer
Design progress tracking UI	Frontend Developer
Test the system	Tester
Deploy the system	Backend Developer
Write documentation	Project Manager

4. Risk Assessment & Mitigation Plan

Identify potential risks and propose solutions to mitigate them.

Risk Assessment:

Risk	Impact	Likelihood	Mitigation Plan
Delays in development	Project timeline slips	Medium	Break tasks into smaller chunks, set clear deadlines, and monitor progress weekly.
Poor UI/UX design	Low user adoption	Medium	Conduct usability testing early and involve the frontend developer in design decisions.
Database performance issues	Slow system response	Low	Optimize database queries and use indexing. Use SQLite for simplicity during development.
Lack of testing	Bugs in production	High	Allocate dedicated time for testing and involve the tester early in the process.
Deployment issues	System downtime	Medium	Test deployment on a staging environment before going live.

5. KPIs (Key Performance Indicators)

KPIs:

KPI	Description	Target
Response Time	Time taken for the system to respond to user requests.	< 2 seconds for all pages.
System Uptime	Percentage of time the system is operational.	99.9% uptime.
User Adoption Rate	Percentage of target users who register and use the system.	80% adoption within 1 month.
Bug Fix Turnaround Time	Time taken to fix critical bugs after they are reported.	< 24 hours for critical bugs.
Quiz Completion Rate	Percentage of enrolled users who complete quizzes.	70% quiz completion rate.