

Candidate Assignment: Senior Full-Stack Web Developer

Objective

To evaluate your technical proficiency across the full stack, understanding of best practices, problem-solving abilities, and how you approach a real-world development scenario.

Assignment Overview

You are tasked with developing a **mini-Learning Management Dashboard** for an online education platform. This dashboard will allow administrators to:

1. View a list of student enrolments.
2. Add and edit a course.
3. Assign a student to a course.
4. Generate a simple enrolment report.

The goal is not to build a complete system, but rather to showcase your technical decisions and code quality.

Technical Requirements

Backend

- Use **C# (.NET Core)** for APIs.
- Implement RESTful endpoints for:
 - CRUD operations on courses
 - Enrolments (e.g., assign a student to a course)
- Use in-memory data storage (e.g., Dictionary or List) - no database required.
- Use dependency injection and proper separation of concerns (e.g., controller, service, model layers).
- Write at least one **unit test** (xUnit or NUnit).

Frontend

- Use **HTML5**, **CSS3**, and **object-oriented JavaScript** (or optionally React if you're more comfortable).
- Build a basic UI for:
 - Listing courses and enrolments
 - Adding/editing a course
 - Assigning a student to a course

DevOps & Deployment

- Push your code to **GitHub** or any Git-based repo.
- Use Git best practices (branching, meaningful commit messages).
- Include a **README.md** file with:
 - Setup instructions
 - Overview of your architecture and design decisions
 - Any trade-offs made or areas for improvement

Bonus (Optional)

- Use **AWS SDK** to simulate saving data to S3 or interacting with any AWS service (mocked).
- Include a basic front-end report page (e.g., total students per course).
- Responsive UI styling.

Submission Guidelines

- **Deadline:** Submit within **5 days** of receiving the assignment.
- **Delivery:** Send a link to the GitHub repository.
- **Optional:** Short Loom or screen recording (max 5 minutes) walking through your solution.