

Assessment for Full Stack Developer: LMS for a Maritime Company

Objective:

Develop a Learning Management System (LMS) tailored for Fathom Marine Consultants. The LMS must cater to multiple user roles and provide robust reporting features.

Assessment Task

1. Dashboard Implementation

Create a dashboard supporting four user roles:

Super Admin: Manage overall system, add/remove admins, view system-wide reports.

Admin: Manage training modules, assign tasks, view departmental progress.

Sub Admin: Oversee ship-specific training, manage seafarer enrollment, and monitor ship-based progress.

User: Access assigned training, track personal progress, and download certificates.

2. Training Modules

Develop functionality for uploading training content (video, PDF, quizzes).

Implement progress tracking for users.

3. Reports and Analytics

Provide detailed reports for:

Completed training (modules, hours, dates).

Training in progress.

Man-hours spent.

Individual and group progress metrics.

4. Key Functionalities

Role-based authentication and authorization.

Responsive design for mobile and desktop views.

Data export options (PDF/Excel).

5. Technology Requirements

Frontend: React.js/Angular/Vue.js.

Backend: Node.js/Django/Flask.

Database: PostgreSQL/MySQL.

Hosting: AWS/Azure/Google Cloud.

Evaluation Criteria

Code Quality: Modular, clean, and well-documented.

Functionality: Full implementation of the dashboard, roles, and reporting features.

UI/UX: Intuitive design and ease of use.

Scalability: System architecture to handle a growing user base.

Security: Secure user authentication and data handling.

Deliver the code base, deployment guide, and a brief walkthrough video of the implemented LMS.