Terms of Reference (TOR): Software Engineer

Entity: Digital Transformation Office (DTO)

Division: Application Modernization

Ministry: Ministry of Education and Higher Education (MEHE), Republic of Lebanon

Position Title: Junior Software Engineer

Reports to: Head of Application Modernization Division

1. Introduction & Strategic Context

The Ministry of Education and Higher Education (MEHE) is undertaking a major digital transformation initiative led by the Digital Transformation Office (DTO). Within this framework, the Application Modernization Division serves as the center of excellence for software engineering, responsible for modernizing key legacy systems such as SIMS and the Official Exams application.

To build sustainable in-house technical capacity, the DTO is engaging final-year Computer Science students and recent graduates as Junior Software Engineers. These developers will gain hands-on experience in modern software development practices, supporting ongoing application modernization projects while developing the technical and professional skills required for future roles in government digital transformation, especially software engineering.

2. Role Purpose & Core Objectives

The Junior Software Engineer will assist in the development, testing, and deployment of software components under the guidance of senior engineers and team leads. This role is primarily a hands-on role focused on coding, integration, and troubleshooting across backend and frontend components, contributing to real projects, and understanding how modern software engineering principles are applied in an enterprise environment.

The primary objectives for this role are:

Learn and Apply Modern Development Practices: Practice agile development, DevOps workflows, and CI/CD pipelines.

Assist in Feature Development: Support the implementation of features or bug fixes across backend and frontend components.

Ensure Code Quality: Follow best practices in writing clean, maintainable, and secure code with proper testing and documentation.

Collaborate and Grow: Work closely with mentors and peers to enhance technical and teamwork skills within a professional environment.

3. Core Responsibilities

A. Application Development & Modernization
- Assist in developing and testing backend services, APIs, and frontend interfaces.
- Write simple and well-documented code under supervision.
- Support code reviews by incorporating feedback from senior engineers.
- Participate in debugging and improving existing modules.

B. DevOps and Deployment
- Learn and apply basic concepts of CI/CD pipelines and version control (Git).
- Assist in preparing code for deployment to development environments.
- Gain exposure to containerization technologies (e.g., Docker).

C. System Integration & Support
- Support integration activities with other Ministry systems under supervision.
- Participate in basic troubleshooting and issue resolution tasks.
- Follow security and compliance guidelines defined by DTO.

D. Collaboration & Knowledge Sharing
- Actively participate in agile ceremonies (stand-ups, sprint reviews, retrospectives).
- Maintain documentation for assigned tasks and features.
- Engage in knowledge-**sharing sessions and contribute to team learning.**

E. Professional Development & Adaptability
- Demonstrate continuous learning and initiative in adopting new tools and technologies.
- Seek feedback from mentors and apply it to improve work quality.
- Develop professional communication and collaboration skills within a technical team setting.

Note: The responsibilities and deliverables outlined in this TOR are foundational. However, the DTO leadership may dynamically adjust the division's priorities and plans to ensure alignment with the Ministry's evolving strategic objectives. Any such adjustments will be consistent with the core software engineering and application management mandate of this division.

4. Key Deliverables (First 3 Months)
- **Feature Implementation:** Deliver assigned user stories or features for DTO systems, with code passing peer review and testing.
- **CI/CD Contribution:** Demonstrate the ability to commit and deploy code to development environments using the established CI/CD pipeline.

- **Agile Participation:** Actively engage in the team's agile workflow, showing progress and collaboration during sprints.
- **Documentation:** Produce documentation for all developed features or fixes.