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: Software Engineer
Reports to: Head of Application Modernization Division

1. Introduction & Strategic Context

The Ministry of Education and Higher Education (MEHE) is undergoing a comprehensive IT transformation. The Digital Transformation Office (DTO) has established the Application Modernization Division as its single center of excellence for all software engineering. The division's primary mandate is to resolve risks from critical legacy systems—notably SIMS and the Official Exams application—while building a sustainable, in-house capability.

To support this effort, the DTO is engaging Software Engineers to contribute to the design, development, testing, and deployment of modern software applications. Working in agile teams, Software Engineers will play a key role in replacing legacy systems and building scalable, secure, and user-friendly platforms aligned with MEHE's digital transformation strategy.

2. Role Purpose & Core Objectives
The Software Engineer is a hands-on role focused on coding, integration, and troubleshooting across backend and frontend components. The individual will collaborate closely with peers, senior engineers, and team leads to deliver high-quality solutions.

The primary objectives for this role are:

- **Develop and Deliver Features:** Implement assigned user stories and features with clean, maintainable, and secure code.
- **Contribute to Modern Practices:** Adopt and follow team standards for agile development, DevOps, and CI/CD workflows.
- **Ensure System Quality:** Support testing, debugging, and performance improvements to deliver stable applications.
- **Collaborate and Learn:** Work closely with senior engineers, gaining knowledge while contributing to MEHE's internal technical capacity.

3. Core Responsibilities

A. Application Development & Modernization
- Implement backend services, APIs, and database interactions under the guidance of senior staff.
- Develop responsive and accessible frontend interfaces aligned with MEHE's standards.
- Write unit and integration tests for all developed features.
- Participate in peer reviews, incorporating feedback to improve code quality.

B. DevOps and Deployment
- Contribute to the use of CI/CD pipelines by ensuring code is deployable and passes automated checks.
- Support deployments to development and staging environments.
- Learn and apply best practices for containerized environments (e.g., Docker, Kubernetes).

C. System Integration & Support
- Assist in connecting applications with other Ministry systems through APIs and integration workflows.
- Troubleshoot bugs and provide timely fixes under supervision.
- Follow established DTO standards for security, compliance, and architecture.

D. Collaboration & Knowledge Transfer
- Actively participate in agile ceremonies such as sprint planning, stand-ups, and reviews.
- Maintain technical documentation for developed features.
- Share knowledge and progress updates with peers and supervisors.

E. Professional Development & Adaptability
- Continuously develop skills through learning and feedback from senior staff.
- Demonstrate adaptability in working with new tools, frameworks, and programming languages as required by projects.
- Embrace collaborative development practices and recognize shared ownership of all code.

Note: The responsibilities and deliverables outlined in this TOR are foundational. The DTO leadership may dynamically adjust the division's priorities and plans to ensure alignment with the Ministry's evolving strategic objectives, which may imply changes to the mandates outlined in this ToR including its title. The candidate is required to fully abide by these changes, demonstrating flexibility and a commitment to continuous improvement in all areas, including technical execution, self-development, and communication, as directed. 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 SIMS or Official Exams, 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.