## Project Name:
Teachers Attendance Management System With Fingerprint

Project Sponsor:
Eng/ElHassan

Project Manager:

Date:
October 3, 2025

## Project Purpose and Justification:
The purpose of this project is to develop an automated Teachers Attendance System integrated with fingerprint technology for the school. The system will replace manual attendance records, reduce administrative workload, and improve accuracy and transparency in teachers' attendance tracking.

## Project Description:
This project aims to develop a web-based Teachers Attendance Management System that uses fingerprint recognition to record and manage teachers' attendance efficiently. Administrators can view, update, and generate detailed attendance reports for analysis, while teachers can easily log their attendance through the fingerprint device. The system also supports real-time synchronization, data storage, and retrieval through a web interface, making attendance management more reliable, transparent, and paperless. The main users of the system are teachers, and administrators. The system may also be accessed by school management or HR staff for monitoring and analysis purposes.

## Project Objectives:
- Develop and deploy the system by April 15, 2026
- Achieve 100% adoption by all departments in the school
- Reduce manual attendance-processing time by 90% within the first semester
- Ensure attendance data accuracy with less than 1% error rate

## Deliverables:
- Fully functional web-based attendance system integrated with fingerprint devices
- User manual and initial training sessions for school administrators and HR staff
- Attendance reporting and analytics module

## Milestones & Timeline:
- Requirements gathering: Oct 2025
- Design prototype: Nov 2025
- Development: Dec 2025 – Mar 2026

- Testing: Mar 2026
- Deployment & training: Apr 2026

## Technical Requirements:

- Platform: Web-based application integrated with fingerprint reader devices.

- Operating System: Compatible with Windows 10/11, macOS, and Linux environments.

- Hardware: Fingerprint scanners connected to university PCs; servers with minimum 8GB RAM, dual-core processor, and 100GB storage for database and logs.

- Database: Scalable relational database (e.g., MySQL or PostgreSQL) to store user profiles, attendance logs, and fingerprint templates.

- Performance: Support concurrent access by at least 1000 users with response time under 5 seconds.

## Security:

• All teachers' biometric data (fingerprint templates) must be securely encrypted in storage and during transmission.

• System access will be role-based (Admin, HR, Teacher) with individual login credentials.

• Passwords must be hashed using a strong algorithm( SHA-256 or bcrypt,e.g.,).

• The system should use HTTPS (TLS 1.2 or higher) for all communications.

• Only authorized administrators can view or export attendance data.

• Regular security audits and penetration testing will be conducted before deployment.

• Data retention policies will comply with school privacy standards.

• Backup files will also be encrypted and stored in a secure environment.

## Limits and Exclusions:
• This project will not develop a mobile application version of the attendance system; only a web-based platform is included.
• Integration is limited to the school's existing School Management System (SMS) and Staff Information System (SIS), excluding third-party or external systems.

•	Hardware procurement or upgrades (such as new servers or devices) are excluded and will be handled separately by the school's IT department.
•	This project excludes providing real-time location tracking of teachers; attendance is based on manual or semi-automated check-in methods only.
•	User training beyond the initial staff training sessions and user manuals is outside the scope.
•	Any future enhancements or expansions will require separate project approval and funding.
•	The project is limited by the allocated budget and timeline; no additional resources will be provisioned without formal amendment.


## Approval:

•	Project Sponsor: _____ Date: _____
•	Project Manager: _____ Date: _____