Republic of the Philippines

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Requirements for the Automated Attendance System

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Attendance Tracking System: Initial Requirements Document

1. User Management Requirements

R01. The system must allow authorized user to register students and instructors.

- **R01.01** Authorized user must be able to upload student ID photos along with personal details (full name, student ID, year level, program, and faculty) during registration.

- **R01.02** The system must allow authorized user to remove students or instructors from the system.

- **R01.03** Authorized user must have the authority to unregister an instructor's phone if necessary.

- **R01.04** Only authorized users can access specific features.

- **R01.05** Only authorized users can locate lost registered devices of the instructor.

2. Attendance Tracking Requirements

R02. The system must provide attendance tracking functionality for instructors.

- **R02.01** Instructors must be able to take attendance using ID Barcode scanning via registered devices (phones or laptops).

- **R02.02** The system must allow instructors to drop students who have accumulated three consecutive absences.

- **R02.03** The system must generate attendance report for authorized users.

- **R02.04** Students must be able to view their attendance records per course.

3. Security Requirements

R03. The system must implement strong security measures to protect data integrity.

- **R03.01** Role-Based Access Control (RBAC) must be enforced to restrict access to sensitive data.

- **R03.02** Admin-controlled data encryption must be used to ensure data confidentiality.

- **R03.03** Multi-Factor Authentication (MFA) must be required for instructor logins.

- **R03.04** The system must operate over HTTPS using SSL security protocols.

4. Infrastructure & Deployment Requirements

R04. The system must be cloud-based and ensure scalability.

- **R04.01** The system must use MongoDB Atlas or MySQL for cloud-based data storage.

- **R04.02** The system must be accessible and scalable.

- **R04.03** The system must not provide an API for integration with other university systems.

5. Deployment Timeline

R05.01 On May 15, 2025 is the initial checking for the system.

R05.02 The system must be fully operational and deployed on May 22, 2025.

By following these structured requirements, the system will streamline attendance processes, improve security, and enhance data visualization for better decision-making.