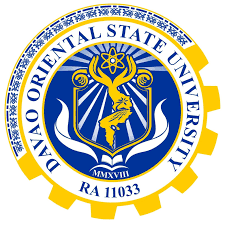
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Attendance System Requirements

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Attendance Tracking System: Requirements Document

1. User Management Requirements

R01. The system must allow designated administrators to manage student and instructor registrations.

* + R01.01 Administrators 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 administrators to remove students or instructors as needed.
  + R01.03 Administrators must have the ability to unregister an instructor’s registered device when necessary.
  + R01.04 Access to system features must be restricted based on user roles.
  + R01.05 Only authorized administrators can track lost registered devices belonging to instructors.

1. Attendance Tracking Requirements

R02. The system must provide an efficient and reliable attendance tracking solution for instructors.

* + R02.01 Instructors must be able to record attendance using ID barcode scanning via registered devices (phones or laptops).
  + R02.02 The system must support real-time attendance tracking through barcode scanning.
  + R02.03 Instructors must have the option to drop students who accumulate three consecutive absences.
  + R02.04 The system must generate attendance reports that can be accessed by authorized personnel.
  + R02.05 Students must be able to view their attendance records for each enrolled course.

1. Security Requirements

R03. The system must prioritize data security and integrity.

* + R03.01 Role-Based Access Control (RBAC) must be enforced to restrict sensitive data access.
  + R03.02 All stored data must be encrypted to ensure confidentiality, with encryption controlled by system administrators.
  + R03.03 Multi-Factor Authentication (MFA) must be required for instructor logins.
  + R03.04 The system must run on a secure HTTPS protocol with SSL encryption.

1. Infrastructure & Deployment Requirements

R04. The system must be cloud-based, ensuring scalability and reliability.

* + R04.01 The system must use MongoDB Atlas or MySQL for cloud-based data storage.
  + R04.02 The system must be designed for high availability and seamless scalability.
  + R04.03 The system must operate as a standalone platform without API integrations with other university systems.

1. Deployment Timeline
   * R05.01 The system’s initial assessment and functionality check must be completed by May 15, 2025.
   * R05.02 The system must be fully deployed and operational by May 22, 2025.

By implementing these structured requirements, this system will streamline attendance tracking, improve security, and provide insightful data for better academic management.