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**Attendance Tracking System: Final Requirements Document**

**1. User Management Requirements**

* **R01.** The system must allow authorized users to register students and instructors.
* **R01.01** Authorized user must be able to upload student ID photos along with personal details during registration.
* full name
* student ID
* year level
* program
* faculty
* **R01.02** The system must allow authorized users 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.
* Phone
* Laptop
* **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**

* **R04.** The system must implement strong security measures to protect data integrity.
* **R04.01** Role-Based Access Control (RBAC) must be enforced to restrict access to **sensitive data**.
* **R04.02** Admin-controlled data encryption must be used to ensure **data confidentiality**.
* **R04.03** Multi-Factor Authentication (MFA) must be required for instructor logins.
* **R04.04** The system must operate over HTTPS using SSL security protocols.

**5. Infrastructure & Deployment Requirements**

* **R05.** The system must be **cloud-based** and **ensure scalability**.
* **R05.01** The system must use **MongoDB Atlas** or **MySQL** for cloud-based data storage.
* **R05.02** The system must be **accessible** and **scalable**.
* **R05.03** The system must not provide an **API** for integration with other university systems.

**6. Deployment Timeline**

* **R06.** On **May 15, 2025** is the initial checking for the system.
* **R07.** The system must be fully operational and deployed on **May 22, 2025**.