**ABSTRACT**

**TOPIC :** Attendance Management System

**TEAM MEMBERS**

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The **Attendance Management System** is a Java-based application designed to automate attendance processes using QR codes and camera integration. Built with JFrame in NetBeans IDE and backed by MySQL, the system is efficient, secure, and user-friendly. It provides key modules to handle all aspects of attendance management.

1. **Register User**: Administrators can register new users by capturing their personal details like name and ID. A photo is taken via the camera during registration, and the information is stored in the database for future use.
2. **View User**: This module allows administrators to view all registered users and their details, including their photos and generated QR codes. It provides an organized way to access and manage user information.
3. **Update User**: This feature enables editing or updating user details, such as replacing outdated information or updating the profile photo to maintain database accuracy.
4. **Generate QR Code**: The system generates a unique QR code for every registered user. This QR code contains their information and is used to mark attendance seamlessly through scanning.
5. **Capture Photo**: During attendance marking, the camera captures the user’s photo to verify their identity against the stored profile, ensuring secure and reliable attendance recording.
6. **Manage Attendance**: This module tracks and records attendance for each user. Administrators can view attendance reports, check daily records, or generate summaries for better management.
7. **Delete User**: Administrators can remove users who are no longer part of the organization. This feature ensures the database stays clean and up-to-date.

**Data Requirements :**

**User Data**: Name, ID, contact details, profile photo.

**QR Code Data**: Unique user-specific encoded information.

**Attendance Records**: User ID, date, time, attendance status, captured photo.

**Administrator Data**: Login credentials for system access.

**System Logs**: Operations performed, user ID, timestamps for monitoring.

With its intuitive interface, the system eliminates manual processes, minimizes errors, and saves time. Combining the power of QR codes and cameras, it’s an ideal solution for organizations looking to modernize their attendance management system.