**Dr. D. Y. Patil Pratishthan’s**

**D. Y. Patil Institute of Master of Computer Applications and Management**

**(M.C.A. Programme)**

(Approved by AICTE, New Delhi & Affiliated to Savitribai Phule Pune University)

**Dr. D. Y. Patil Educational Complex, Sector 29, Pradhikaran, Akurdi, Pune – 411 044**

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Mini Project

ITC-31

Synopsis

Submitted by

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Division: A

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**Introduction:**

* Our web application revolutionizes attendance management with QR Code tracking technology.
* In today's dynamic workforce environment, our solution provides a seamless, modern approach to tracking employee attendance.
* This method uses QR codes to streamline the process of checking in and recording attendance, typically through a mobile app or web platform that scans the codes.

**Existing System:**

* Organizations rely on traditional methods like manual attendance registers, which are time-consuming and prone to errors.
* Some organizations use electronic systems that still require significant manual input and are not fully adaptable to modern workplace needs.
* Current systems often face difficulties such as slow data entry, errors, and lack of real-time tracking, which leads to inefficiencies.
* **QR code-Based Attendance:** User can easily log their attendance by scanning their faces, allowing for quick and accurate attendance logging.
* **Centralized Platform:** The system provides a centralized, automated platform that simplifies attendance management for both employees and administrators.

**Proposed System:**

* **QR code-Based Attendance:** User can easily log their attendance by scanning their faces, allowing for quick and accurate attendance logging.
* **Centralized Platform:** The system provides a centralized, automated platform that simplifies attendance management for both employees and administrators.
* **Real-Time Tracking:** Enables real-time monitoring of attendance, improving accuracy and reducing administrative overhead.
* **User-Friendly Interface:** The application is designed to be intuitive and easy to use, ensuring high adoption rates among employees.

**Need of System:**

* The traditional methods of attendance tracking often lead to delays and administrative burdens. Our system reduces these inefficiencies with automated data collection.
* By eliminating manual data entry, the system minimizes errors, providing more reliable attendance records.
* The QR Code tracking -based system offers a user-friendly experience for employees, reducing the complexity of attendance logging.
* The centralized nature of the system allows it to adapt to the needs of growing organizations, ensuring long-term viability.

**Module Specifications:**

1. **Registration and Authentication: User registration and authentication is the first step in the system. User can register using username, email, and password, with OTP based email verification, email and password validation.**
2. **User Dashboard: Dashboards for users as well as admin with different options to interact with the system. Manages and maintains user profiles, including attendance records, and other relevant information.**
3. **QR Code Tracking: A software module that uses QR Code technology to verify user identity and log attendance. User use their smartphones to scan the QR code.**
4. **Mark Attendance: Enables users to quickly and accurately mark attendance by scanning QR codes generated on the user side only, once they log into the system successfully.**
5. **Attendance Reporting**: Provides real-time attendance data, allowing for easy tracking and analysis.
6. **Notifications**: Sends automated notifications to users and administrators for important updates, and low attendance alerts to the users.

**Technology used:**

**Front end:**

HTML, CSS, Java Script, Bootstrap

**Back end:**

Python, Django

**Database:**

SQLite