

AN ATTENDANCE TRACKING SYSTEM THAT USES QR CODES



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Abstract

In emerging technology, smartphones play a vital role in our daily lives. Today's cell phones can swiftly and simply resolve the majority of issues. Everybody's life is now simpler and easier because to it. We are recommending a system that will address the issue with documenting attendance after the technology. Although biometrics were introduced and attendance management has been done manually over the years, there are still some significant drawbacks. To address this, we are proposing a system of attendance that aims to promote the possible use of the Quick Response (QR) code as a future system of attendance management, tracking, and recording.

Keywords: Biometrics, Quick Response code I. SCO To track and mark employee attendance, we created a procedure for the project that is being offered. Better security is provided, and the outcome is produced. The suggested system is straight forward to use. The attendance of employees is recorded through this attendance system

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1. Introduction

The most crucial indicator of an employee's presence is their attendance. Work from home is popular these days. We suggested and created a superior web-based approach to assist in resolving such problems faced by numerous businesses. The company allows employees to work from home as often as is convenient for them. Although it is convenient, businesses might not have enough customers or staff members. The business site keeps track of staff activity. The ID/admit cards of the employees are typically provided by many companies. These cards have a QR code that can be used to log in, and the entry and exit information of the employees is recorded while they are present. This is not possible if you work from home. To get around this, we're suggesting a method where employees can check in using a QR code that is produced using their unique employee id. The suggested architecture offers data protection and rapid, easy access to data. Additionally, the admin generates the report automatically. The internet-based attendance system's goals are to track attendance more efficiently and to computerise the conventional method of recording attendance. Every employee has been provided with a special QR code that is created by their IDs. The employees must scan the personal QR code that has been issued to them in order to record their attendance. The database will automatically note the attendance. The admin can use this system to automatically generate a report on the attendance of their employees and the amount of pay due to them.

Related Study

“Attendance Management System (AMS) with fast-track analysis,”

The Attendance Monitoring System (AMS) fast-track analysis is designed to make it simpler for the lecturer to monitor student attendance. The tracking of attendance is crucial when working with a large class size. Professors find it challenging and time-consuming to monitor students' attendance in class. Human mistake can occur when transferring attendance data into the original network, and once class is over there is no way to go back and repair the issues. Students attend the classrooms at a specific time, so those who are frequently absent will be forgotten. As a result, we created a new system with a simple implementation methodology, which consists of an RFID information logger and ASP.net for data analysis. The technology can check attendance in as little as five minutes, regardless of the size of your class.

“Effective and efficient attendance tracking system using secret code,”

Keeping tabs on students' attendance is crucial for gauging their participation and engagement in class. Regular classroom participation has been shown to have a significant impact on student achievement. In

general, performance mirrors attendance levels. Hence, it is important to identify student attendance issues as soon as feasible so that solutions may be implemented. Yet, keeping track of attendance may be a time-consuming and laborious task, particularly for courses with a big number of pupils. Not to mention problems with taking attendance, such as signature falsification in which kids sign in place of absent peers. A new and safe method of keeping track of who shows in to work each day is presented as a solution to this problem. Much of the work of recording students' attendance may now be done automatically by the system. In order to prevent signature fraud, a secret code based on the MD5 hashing method is integrated into the system such that each student is assigned a new code every day. The setup of the system demonstrates that it is possible to considerably minimise the time needed to monitor student attendance using this approach, and that the secret code is effective in preventing signature fraud among students.

“Attendance Management System,”

No matter what kind of data you like to work with (quantitative, qualitative), modern research relies on precise data gathering methods. Errors may be minimised by carefully selecting a suitable technique and instrument for data collecting. The proposed system consists of portable hardware components, a central server, and software modules for either human or automated data collection from sensors. Surveys, closed-loop control surveillance systems in factories and hospitals, school and university attendance tracking systems, and so on might all benefit from this technology. This article proposes a concept and framework for recording attendance at educational institutions, with the goal of simplifying and speeding up the time-consuming process of recording and collecting attendance. Because of the need for a cheap, user-friendly, portable, energy-efficient, and safe automated system in educational institutions, its intended customers are in this sector. Hence, this prototype offers a unified approach to converting from a legacy attendance system to a modern embedded one.

2. Methodology

This web software simplifies the process of taking attendance. It uses the newest Fast Response coding technology, which is both inexpensive and efficient for users. This Android app is separated into two sections: Admin and User. Both parties need to enter their username and password to start the application. The QR code is generated instantly when authentication is complete. Afterwards, they need to put in their initials and last names and their employee ID number to finish up the form. A QR code is displayed by entering the unique ID of employees. Employees can then scan this code to mark the

attendance. As these applications are dynamic, they are updated with each new time stamp that the programme administrator specifies. Admin and employee's related to the organisation may check the

attendance monthly, weekly basis. As a consequence, the app provides a frictionless attendance management system as well as a more efficient means of monitoring employee enrolment.



Fig 1-Proposed system model diagram

3. Results

If you launch our code, it will automatically get an IP address, and if you paste that address into Chrome, you will see a similar URI. If this is your first time using the site, you'll need to create an account by entering some information about yourself (such as

your company or school) before you can log in. The QR Code required for download is then generated automatically depending on the credentials. This QR code is being used to track attendance. The QR Code is then recorded by our camera if it's a good one, the user's attendance is automatically created; if it's a bad one, it isn't.



Fig 2 - Scan QR code to mark attendance

The employee's attendance may be monitored by both the app's user and administrator. It shows number of days the employee present and the amount payable.

4. Conclusion

These days there is a need to keep up with the latest technologies developing in all fields. So in the attendance marking system too. The employee's attendance management system is important in a workplace to know the employee timeline for managing any project. Attendance Management Systems helps in calculating the total working hours. This system helps in marking the attendance of the employees using its web cam access in the portal. With the help of our proposed system both employee and company(HR/ Team Lead) can view the attendance by using their login details.

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