QR Based Attendance System

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ABSTRACT

With the advent of technology and the many options available, it is very important that you rethink and improve the current manual process using technologies, such as the web, mobile phone together. By using the mobile phone and its geo tagging feature we can accurately detect and confirm its presence once and for all. QR code scanning is one such feature that enables them to capture and process data quickly. Smartphones can be used to speed up the participation process. The project 'QR Based Attendance Management System uses QR Code and Location' focuses on simplifying and solving the problem of a manual participatory process. The project proposes a system based on the use of QR code. The QR stands for 'Quick Response'. They can be read quickly over a cell phone. Maintains information such as course number, date, professor name, etc., used in the proposed program.

Keywords: QR code, QR scanner, real-time location, verification, Android app

1. Introduction

Student attendance by university teachers during each course is a time-consuming process especially when the classroom has a large amount of energy. Faculty policies require the presence of teachers in all subjects. In hindsight, for every hour allotted for a given lesson, usually 45 hours per semester, there may be up to eight hours for each person who usually takes ten minutes for each study session. Statistics show that 42% of smartphone users are between the ages of 26. Therefore, with the widespread use of smartphones for university students, this paper solves the problem of time-consuming process loss and suggests a program that offers a 90% reduction in time. The proposed program provides a QR code for students to be scanned with a specific smartphone scanner program. A code with a student ID will ensure the presence of students.

Therefore, with the proposed program you will save not only time but also effort on the part of the teachers in each subject. This speeds up the system's presence and allows more time for presentations to be presented. The proposed system also takes care to prevent unauthorized access by providing the number of directors in all subjects so that we can detect double counting or corruption.

2. The Main Purpose

"QR Code Based Attendance Management System" is a combination of two android apps designed to capture and maintain the daily presence of students in college. Here the Professor in charge of these subjects will be the

one to mark whether the students are present. Each staff member will be provided with an android app that is used to capture attendees and create an overall atmosphere. An accurate report based on student presence is produced here. The weekly and monthly student attendance report is generated to your liking. The main purpose of the automated program is to make the computer a common way to record attendees and to provide an effective and automated way to track the presence of people in institutions. Benefits of QR Code Based Attendance System:

- Provide better protection.
- System maintenance is easy and expensive.
- Produce results quickly.
- Provide accurate and effective data.
- Usable.

3. QR code

Quick Response Code (QR code) is a two-dimensional barcode designed by Denso Wave in 1994 in Japan. The QR code is composed of black and white columns and lines and is designed to be read by a smartphone.

4. Implementation

To achieve the goals discussed above, a step-by-step process is followed.

Details of the procedure are provided below:

- 1). Create an android QR code generator application using student information such as volume number, student ID.
- 2). Create an Android app that captures attendees related to a specific topic and generates a student attendance sheet as per the presence details.

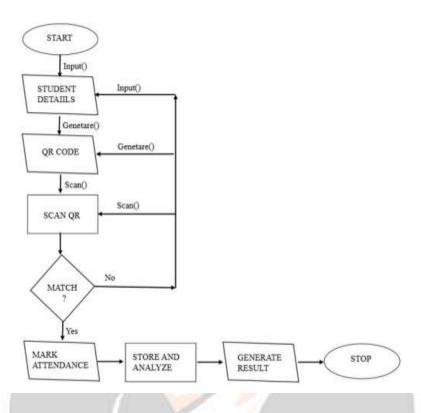
5. Literature Review

To achieve the goals discussed above, a step-by-step process is followed.

Details of the procedure are provided below:

- Create QR code generator app for android using student details like volume number, student ID.
- Build an Android app that takes people present in relation to a particular topic and generates a student attendance sheet as details for each presence.

6. Basic Flow chart



7. Conclusion

The improved system presented in this paper has been successfully implemented and tested. Student attendance status will be analyzed and sent out. A presence monitoring system is very important in our daily lives. With great advantage indeed, among all the types of scanning technology, the QR Code Based Attendance System is the most accurate. In this project report, we have included an introduction to the Presence and aesthetic monitoring program. It is an effective way to keep those present on a smart phone rather than wasting paper.

8. Future scope

Our future work focuses on providing class topics and notes that are missed by the students. Full control over the professor with the most secure and advanced options. Finally we conclude that, if we combine this presence system with a face recognition tool the system will solve the problem of real world presence.

9. References

- [1]. "Android Lessons" [Online]. Available: https://developer.android.com/training/index.html
- [2]. "Android Lessons" [Online]. Available: https://www.tutorialspoint.com/android/

- [3]. "Integration of QR Code with Android" [Online]. Available: https://github.com/zxing/zxing
- [4]. "About Bar Code" [Online]. Available: http://files.microscan.com/whitepapers/barcode_basics.pdf
- [5]. "ISS QR Code AIM Store: Archive" [Online]. Available at: Aimglobal.org
- [6]. "Android Lesson" [Online]. Available: http://androidhive.com

