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QR Based Exam Hall Plan Monitoring System

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ABSTRACT: As we all know, life progresses day by day, and technology progresses year by year as well. Each field makes use of technology to increase the efficiency of production. Smart phones are one of the most recent and widely used technologies. It is the most widely used and preferred device among students. Furthermore, there is a pressing need to implement learning through smartphones as they become indispensable. In addition, some issues are discovered during examinations in academic institutions. It is the ideal time to implement a QR-based attendance system during exam time to aid and improve student results. Paper is used in the traditional method of taking attendance. This paper proposes a QR code-based system for displaying information to students in the examination room. In order to confirm the presence of a student, the invigilator will scan the code. This paper also explains the various levels of implementation in any organisation. The study examines the student's ability to write effectively in the examination room. The proposed system improves student concentration and saves time during exams. Despite the rapid growth of smart phones and the application market, the current exam hall plan is still in its primitive forms. A notice board in the college is used in a previously developed exam hall plan check system. This project proposes a QR code-based system that displays the exam hall details of students prior to the start of each exam. In order to confirm their exam hall, students must scan the code. This saves time and makes it easier to put things together on time.

KEYWORDS: QR CODE, Scan, Attendance, Old system, Monitoring.

I. INTRODUCTION

There are many problems of common technology and security for a few applications in today's everyday life, and there is an important application of automatic control in many applications. As a result, we have dedicated this research project to the college, in the hopes that they will be able to solve the exam monitoring problem. There are various methods for monitoring system applications that are used in schools and higher education institutions these days. Among the methods used is the traditional method of using paper and pen, which appears ineffective and boring and wastes the lecturer's and student's time during the examination. The proposed monitoring system is developed in this project using the QR code. By scanning, the QR code using mobile and then it will be transformed to the application to do further process. The system provides time, ease of use and data preservation for a long time. Main concept behind smart monitoring system is to take the details of student and exam hall in any college.

This paper intends to digitalize it through the use of QR codes and an Android studio. The QR scanner was created using Android Studio coding. This project will be more successful if the students' information, such as their registration number, is created using a QR generator. Then, instead of a barcode, the information contained in the QR code will be pasted on your ID card. An android application developed by an android studio scans the QR code that is pasted on your ID card. After scanning the QR code, it will display an individual's exam hall plan, with information such as the time and date of the exam, as well as the row and column numbers that define an individual's seating arrangement. Even in the neck-off time we will know the exam hall plan in anytime, anywhere. This reduces the timings of an individual and avoids threats and this is the main advantage of my paper [1-4]

Background of the Study

The study's main goal is to report on an automated student monitoring system that can be used in colleges and universities during exams. This paper focuses on creating a QR code-based application. This system allows us to speed up the process of monitoring and allocating rooms during the examination, saving time for students and avoiding confusion and anxiety. This paper proposes a system based on a QR code for students to use at the start of each examination. To confirm their rooms, the students will need to scan the code. The paper explains the proposed system's high-level implementation details. The device will then function as a scanner, scanning each student's card one at a time

to confirm and verify their presence. The apps Manager will act as a sensor, reading the QR codes printed on the students' phones. Because of its simplicity and cost-effectiveness, this design was chosen. The system's main benefit is that it is more accurate and faster.

II. RELATED WORK

The goal of this research is to learn about the current issue tracking system, its benefits and drawbacks, and to propose a system that takes advantage of the benefits while overcoming the drawbacks. This QAS is critical in software development because it allows developers and testers to track their progress while also increasing customer satisfaction. Menderes nal [5] and Mustafa Yaci This paper accepts the design and implementation of an adaptive online exam system. Adaptive exam systems generate different question sets for each student automatically and interactively, measuring their ability in a specific discipline rather than comparing their progress. An adaptive exam system prevents a student's disruption and motivation loss caused by questions that are much easier than his or her ability level. Furthermore, the negative effects of questions requiring more knowledge than a student's ability on his or her self-confidence and morale are ignored. They can notice student competencies more effectively because questions are focused so that clear deductions about student gains can be made. The system's advantages include requiring less total time for calculations and being more flexible in the exam management system. The system's self-sufficiency in terms of arrangement, repetition, and evaluation of the measurement process, in particular, allows it to be used in individual education sets. In cases like distance learning, where some challenges are encountered frequently, this system can help determine student competencies more effectively.

Ruth Raitman and her colleagues .[6] This paper examines the role of security in the context of collaborative e-learning, focusing on the social aspects of security and the importance of identity. It also represents a case study that was completed in November 2004 to test the logic of security that students encountered while using the wiki platform as a means of online collaboration in a tertiary education setting. Websites that are fully editable, easily accessible, and do not require software allow contributors (in this case students) to feel a sense of responsibility and ownership. The difference between two wiki studies will be highlighted, one of which used user login and the other of which kept anonymity throughout the study. The results consider the independent participation and evolution of the work requirements over time, which in fact determines the no validity of administrative identification.

NajwaHayaatiIp-ShingFan[7] and MohdAlwi E learning is a new way of learning that uses the Internet to carry out its operations. The internet has become a haven for a new set of illegal activities, and the E-learning environment is now vulnerable. The benefits and growth of e-learning are discussed in this paper. The desired security elements in e-learning are discussed in this paper. In addition, it describes the situation and existing research on e-learning security. It is recommended that information security management participate in the preparation of a secure e-learning environment.

Wu He[8] and Yong Chen This paper describes an online education survey that aims to determine online education providers' awareness of potential security threats and the safeguards that can be taken to mitigate them. The authors combine two methods in their research: blog mining and traditional literature searches. While scholars have identified various security hazards and proposed solutions to mitigate security threats in online education, bloggers have not discussed security in online learning very often, according to the findings. The differences in the survey results generated by the two methods show that online learning sources and practitioners do not place a high priority on security. The paper also deliberates the next generation of an online education system: a safer personal learning environment which needs a one-stop solution for authentication, assures the security of online assessments, and balances security and usability

III. METHODOLOGY

When the students begin their exams, the lecturer goes around to each student one by one to check his information on his id card and signature, causing confusion, tension, delays in answering questions, and anxiety among the students. This proposal proposes a system based on a QR code that is displayed to students during or before each lecture. To confirm their rooms and details, the students will need to scan the code. The paper explains the proposed system's high-level implementation details. It also goes over how the system verifies student identity in order to prevent fraudulent registration. Science and technology in today's world change everything and make human life easier than ever before.

Objectives:

Make use of mobile devices to help with the maintenance process.

- ➔ Use open source software to minimize development and maintenance costs.
- ➔ Attendance reports should provide end users with the greatest flexibility for manipulating the collected attendance data.
- ➔ Quicker and more accurate check and the teachers know who is attended or not in easy way.

RESEARCH METHOD

It is difficult to find a student today who has never used technology. Technology has evolved into one of the most vital arteries of modern civilization. Although the majority of tech users use it for entertainment and communication with friends, there are many useful and practical aspects they may be unaware of. During the examination, students receive confirmation of their examination location. The problem was to save time and effort by reducing the amount of paper work required to generate accurate attendance results for students.

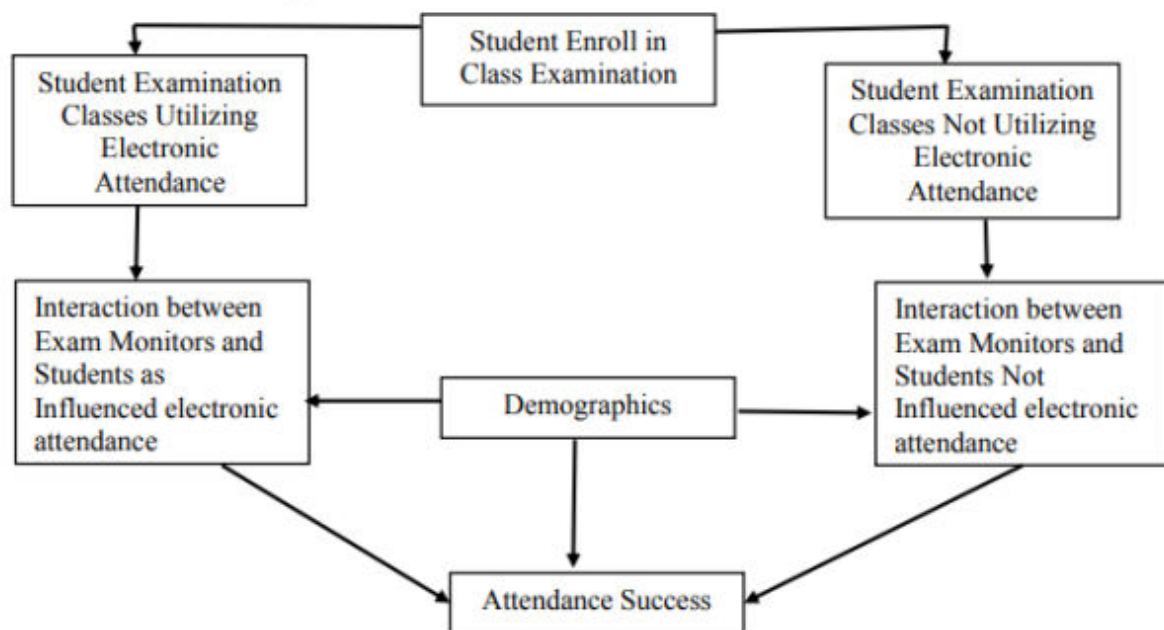


Figure 1. Conceptual Framework

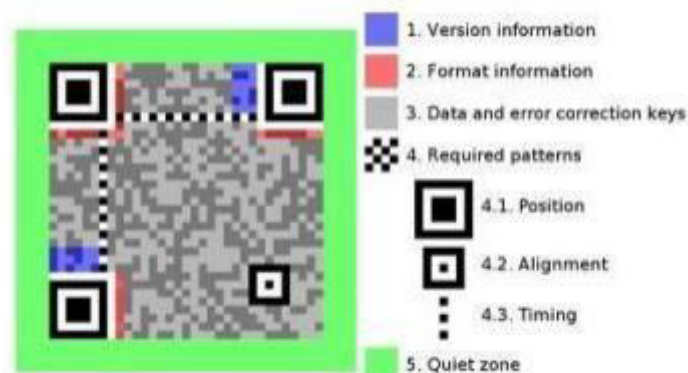


Figure 2. QR Code Structure

Methods and Procedures

This study will demonstrate how technology makes it easier for students to complete their daily tasks. In terms of a solution to the problem of test attendance, the focus of this research will be on the field of study and for university students. The traditional method of using paper and pen, which is ineffective and tedious, wastes the lecturer's time, and scatters the student's ideas during the exam.

In relation to the above-mentioned subject, we are developing a system to assign students and invigilators to examination halls via a web and Android application. The proposed system will assist colleges in allotting students for examinations in the most efficient manner possible by generating a QR code in the hall ticket and using that QR code to track student attendance. Once the students' attendance has been recorded in the system according to their room assignment, it will be safely stored in the centralised database. The android app aided the room invigilators in quickly registering and receiving their allotment.

The Automated Examination System was created with the goal of automating the traditional method of organising examinations in educational institutions, generating reports based on the examination type and time, allocating rooms, and taking student attendance by scanning the QR code on the student's hall ticket.

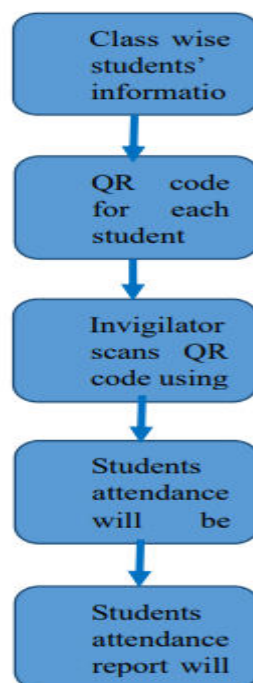


Figure 3. Flowchart of the proposed system

IV. CONCLUSION

The product can be described as a GUI-based system with high efficiency based on the above analysis and results. We can be confident that after completing the research, we will be able to solve the problems with the current system. As you can imagine, QR codes have a wide range of applications. We have used the versatility of QR codes in this paper to implement functional and provide exam hall plan details in a timely manner. This project assists the user in learning exam details for specific subjects in less time and with greater efficiency. In the future, we will be able to add more information about the individuals concerned.

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