

Gate pass management system using Android (App)

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ABSTRACT

Gate pass management system is a software mobile application. It manages entry and exit of the student and teacher also new person who visit at the college. Gate pass management is an efficient system to keep track of each person entry and exit. Gate pass Management system is available for use and it is easy to use and manage. This system is defined as a Gate pass security system. It's main aim to secure college from outside visitors, the department. Gate pass management system help the organization as well as a visitor to manage the Gate passes. Frequently visitors have data entry in top level to make them easily entry and exit. Using gate pass management system we can easily enter the entry and exit of a student, teacher and unknown visitor's.

First using this system, admin can add the students and teachers with their number or a unique id and then guard can daily enter the entry and exit of a people. Many advantage of using this system is all the entry and exit record of a person is saved and we can easily access it. This system is user friendly. The Project 'Gate-pass Management System' is to record the details and various activities of the user. It simplifies the task and reduces the paperwork. In this project, we are reducing the paperwork which is done by giving the paper gate pass. We are providing the electronic version of the paper gate pass. We provide appropriate training to the security guard to handle gate pass application. Admin is monitoring all the user and system. Training has been provided timely basis and they got trained as the Gate-pass System is new and rolled out to their area of responsibility. The system is very user-friendly and it is anticipated that functions of the system are easily accessed by administrators, Faculties, students

Keyword : - Gate pass management system, college Gate Pass, Gate Point, Manage Visitor's.

1. Introduction

Gate Pass management system is software based mobile application. The main goal of the system is to reduce paper work which is daily done by security guard at a college level, to store daily entry and exit record of each person who visited to college and we can access this record at any time. Currently most companies are using the named method in keeping track all the incoming and outgoing visitor records in each of the department but at a college level such a system still not be used.

1.1 Need for the new system

The system helps to prevent the entry of any unauthorized or unwanted person in the premises of college. The flexible architecture of gate pass management System allows Admin in the college to directly access the data they need. This system enhances the security and productivity of the premises. Today every organization uses the notebook for entry and exit of student, staff and new person. But it has a possibility of missing a notebook. It does not store this data permanently. No such system available in any college. Security guard uses a notebook for entry and exit. No authentication is done by security guard which mean many miss happenings.

1.2 Problem statement

This system is not used till in any college but this type of system is used in companies and also society. Now a day's guard uses a notebook for entry and exit it is not proper way to maintain the all record of student and teachers so this system is very useful for guard.

There is no control over the student and teacher arrival. Anyone willing to enter can enter in the college. It may be possible some unknown person may enter and park their vehicle in college parking area and police start asking a question to guard and they are helpless. There is no way of knowing who and when and by who was invited. Regarding in register does not mean that information is true. There is no authentication process. The computer becomes important equipment to the organization to store the data. It also can be used to access and process any data needed easily and less in time. Therefore, it is hope that Gate pass Management System application system able to solve the problem.

2. Future Prospects

Gate pass management system is use in a future for security reason. With this, management of visitors and activities at the gate of an organization or institution is absolutely easy. The system has a wide array of interesting features like:

- You can register gate guards as the admin who will be managing different gates.
- Management of visitors, individual visitors and group visitors.
- You can keep track of the entry and exit times of all visitors including staff.
- You can register staff members also into the system.
- You can register student into the system.
- You can register new guard into the system.
- Capture vehicle details.
- Capture luggage details.

System is to record the details and various activities of the user. It simplifies the task and reduces the paperwork. In this project, we are reducing the paperwork which is done by giving the paper gate pass. We are providing the electronic version of the

3. Requirement Analysis

- The user should have the appropriate version of the windows.
- The system should have up to 2 GB ram minimum requirement for the application.
- The application (android studio) should be installed on the system.
- Internet connectivity is must for this purpose.
- CPU with a speed of 1.3 GHz is a good choice for normal usage.
- 2 GB of available disk space minimum, 4 GB recommended (500 MB for IDE plus 1.5 GB for Android SDK and emulator system image).

4. Software requirements specification

1. Android studio
2. Firebase Database

5. Viability of the system

The transaction reports of the system can be retried as and when required. Thus, there is no delay in the availability of any information, whatever needed, can be captured very quickly and easily. Gate pass management system is able to record the all the data of entry and exit time of the student and staff, Also any new person who are visited to the college. This system is able to update , delete the record of student, staff and guard. We used unique identity for all the persons. For student unique id we used their roll number and for staff we used their id number.

Gate pass management system keeps a check on visitors at the entry and exit points. Unlike a manual system, Gate Pass Software are time-efficient; it provides approval only after checking all the records in the database. The records are accurately maintained by the management system. We have seen various industries/institutes where there is a compulsion of taking a gate pass to enter the premises as well as while leaving the premises before time.

The gate pass is generally either a written chit of paper or a receipt sheet. This sheet remains of no use once out of the premises and there is wastage of paper. Our system proposes to give the “Paper Saving Idea” for the same. It consists of a design where the visitor can enter the required details viz. visitor id, name, contact, reason to enter/leave, and where he/she will enter this on a touch screen enabled kiosk system where this information will be further redirected to the higher authority in the organization.

6. Project Management

Project management is the practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time. The primary challenge of project management is to achieve all of the project goals within the given constraints. This information is usually described in project documentation, created at the beginning of the development process. The primary constraints are scope, time, quality and budget. The secondary and more ambitious challenge is to optimize the allocation of necessary inputs and apply them to meet pre- defined objectives.

7. Output

- **Login page:-**

Using this page user can enter into the system by using username and password. For entering into the system username and password both are must. user can try up to only five attempts.



- **Add record of new student into the database**

Admin can add new guard, teacher and student into the database



- **Update data in database**

User can update record of student, teacher and guard onto the database and also able to see updated record into the app.



- View record

Using this page user can see the all record of the students, teachers and guard and also update it.



8. CONCLUSIONS

The Gate Pass Management System is a software based application which main aim to protect a college from outside visitors. It stores the entry and exit student and teachers data in the database and admin can access this data anytime . The database has all records and safety major of records. Finally we successfully created the application for our college to protect the college from the outside visitors.

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