Hostel Hostage Safety Application

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ABSTRACT

Our project entitled as "Hostel Hostage Safety Application" is a web based application and also supports the android app and developed using .Net with C# technology. This app designed for the use by the Hostels where this application utilizes RFID Cards methodology that is implemented to record the in time and out time of the students from the hostel. Using RFID Cards we can track the students quickly and easily. This application helps the parents of their students who reside within the hostel to know every activity and attendance of their students within the hostel easily. This application also records the date and time of the visitors who visit the hostel. This application completely concentrates on security within the hostel and providing the safety to the residents who reside within their hostel.

Keywords : RFID, Hostage Safety, ServoMotor, RedLED, GreenLED

I. INTRODUCTION

Nowadays, hostel facility is unfold day by day round the world either we tend to mention any school or a training institute. As variety of scholars come back from completely different cities for following higher education, so there's an excellent demand of hostel and PG's. As we've got seen from the previous couple of years there's gradual increase in student migrant and 40-45% of them are ladies because of which require of hostel will increase and for hostel owner initial preference is safety of their hostel student and doesn't allowed the other person to enter within the hostel and it is not potential for single person or lawman to stay watch on all student , therefore for of these downside there's just one different i.e. physics or another name for this can be RFID.

Today, the amount of crimes over kids is increasing day per day. The implement of Hostel surety Security exploitation RFID can facilitate to beat and scale back distressed among oldsters. This project is combination the newest technology exploitation RFID, SMS system, and net based mostly develop exploitation ASP.NET language. once the coed enters the most gate of hostel entrance, they have to pass the gate and RFID reader can record, info concerning the resident like time in and outing from hostel are going to be recorded to web-based system.

A.   KEY FEATURES

✓   Track entry and exit time of students from hostel using RFID Cards.
✓   Track the number of visitors visited to hostel with them in and out time recorded into the application.
✓   It is user friendly.
✓   Less time consumption
✓   Reduce manual work.

OBJECTIVES

•   Electronically record the in and out time of residents
•   Visitors information is recorded in database with their pic.
•   Victors information is recorded in database effectively.
•   It is user friendly.
•   Less time consumption

II.   LITERATURE SURVEY

In [1], Online Hostel Management System" is a software developed for managing various activities in the hostel. For the past few years the number of educational institution is increasing rapidly. Thereby the number of hostels is also increasing for accodomation of the students studying in this institution. And there is lot of strain on the person who are running the hostel and software"s are not usually used in this context.

In [2], In this papercompletely describes about the automatic attendence marking system and parent alerting system for high safety for the hostel students were present more than 500 in one institution. In this model each and every student has to store their finger print data base with their parents or guardians mobile number.

In [3], This paper explains is a software, developed for managing various activities for the hostel. For as long as couple of years the quantity of institution is expanding rapidly. Along with this number of hostels are also additionally expanding for the convenience of the students contemplating in this establishment. This project is in the favour of hostel administration group which encourages them to spare the records of the students about their rooms and other things

III. EXISTING SYSTEM

The existing system is manual primarily based and wish heap of efforts and consume enough time. info regarding information of student hostel area unit store and keep not ok and consistently. Within the current method, knowledge the info the information} area unit hold on into the file however not within the info that is result in data duplication, repetitive knowledge, and isolation of knowledge from one to a different. it's conjointly troubled of one thing happen to the file, then all the information can lost.

Disadvantages of the existing system

✓   Retrieval of data takes lot of time.
✓   Tracking the entry and exit time from hostel is tough.
✓   Maintaining in time and out time of visitors is difficult.
✓   Time consumption is more
✓   Involves too much of manual work.
✓   It is tedious job.
✓   Data is not secured and safe

Hence, an android application to reduce the queue in existing system is proposed The new system completely removes all manual burdens and provide efficient on the entry system.

IV. PROPOSED SYSTEM

The desktop application system is to be computerized in order to overcome the existing problems. This application stores the data safely as a central database and it avoids accessing of unauthorized users. Wardens are responsible to record the detail of student visitor. Hostel visitor management system is that it reduces the burden on the administration staff and simplifies roles and responsibilities as most of the manual tasks and mundane paperwork can be done through Hostel Visitors Management System the system. This system brings in the transparency in the entire management which helps to develop a trust between the students and the management

V. METHODOLOGY

The first printed model of the software package development method was derived from additional general system engineering processes (Royce, 1970). as a result of the cascade from one part to a different, this model is understood because the because the or software package life cycle. The body of water model is associate example of a plan-driven process—in principle, you want to arrange and schedule all of the method activities before beginning work on them.

The principal stages of the body of water model directly replicate the elemental development activities:

· necessities analysis and definition: The system‟s services, constraints, and goals ar established by consultation with system users. they're then outlined thoroughly and function a system specification.

· System associated software package style: The systems design method allocates the necessities to either hardware or software package systems by establishing an overall system design. software package style involves characteristic and describing the elemental code abstractions and their relationships.

· Implementation and unit testing: throughout this stage, the software package style is complete as a group of programs or program units. Unit testing involves corroboratory that every unit meets its specification.

· Integration and system testing: The individual program units or programs ar integrated and tested as a whole system to confirm that the software package necessities are met. when testing, the code is delivered to the client. · Operation and maintenance: ordinarily (although not necessarily), this is often the longest life cycle part. The system is put in and place into sensible use. Maintenance involves correcting errors that weren't discovered in earlier stages of the life cycle, rising the implementation of system units and enhancing the systems services as new necessities ar discovered.

VI. REQUIREMENTS SPECIFICATION

The requirement analysis includes the functional and Non-functional requirements and Hardware and software requiements. The functional requirements are the activities that admin performs with the trolley section and database interactions. The non-functional requirements include feasibility, reliability, scalability.

The hardware requirements are Arduino, Uno, NodeMCU8622, MFRC522, RFID, ServoMotor, RedLED, GreenLED, Buzzer, Male to Male Jumper wire, Male to Female Jumper wire, Soldering Iron,USB Cable 2.0 Type A to Micro B Cable ,USB Cable 2.0 Type A to B Cables.

Functional Requirements

· A functional requirement clarifies the usefulness of a framework or one of its subsystems.

- It likewise relies on the sort of programming and its clients and the kind of framework.
- Functional requirements might be proclamations of what the framework

Non-Functional Requirements

- Non-functional requirements describe about quality of elements and components used in a proposed system.
- It also explains about quality of project requirements, constraints and non-behavioral requirements.
- A non-functional requirement also includes execution of system with behavior such as safety, security, reliability and so on.

Software Requirements

In the project the software requirements are as follows:

- Operating System : Windows 7, Android.
- Front End : ASP.net2010, Android Studio.
- Back End : SQL Server 2008.
- Designing Format : XML, HTML
- Programming Languages : C#, Java

Hardware requirements

In the project the hardware requirements are as follows:

- Processor:Intel Core 2 DUO or higher.
- RAM : 2GB or more.
- HDD : 40GB or more.
- Keyboard :Any Key Board with minimum required keys
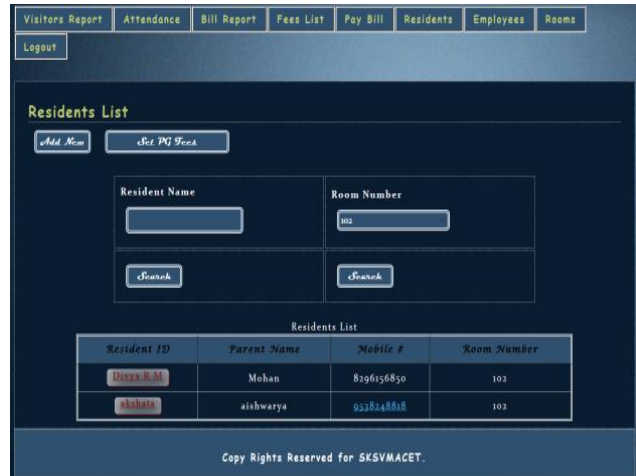- Mouse : Any mouse

VII. RESULTS

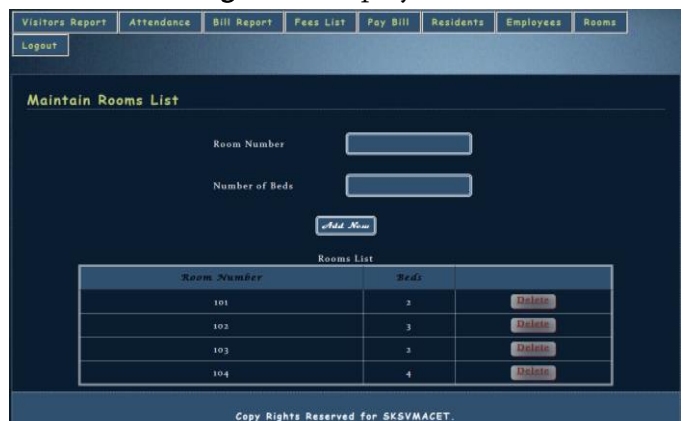**Figure 1:** Residents List

Figure 2. Employee List

Figure 3. Maintain Rooms List

VIII. CONCLUSION

This system provides the safety for the ladies within the hostel. It uses the GPS that permits economical and simple approach of observation in massive organization. It provides a simple approach of

observation security. additionally alert message is a plus of this project. we tend to use fingerprint technology, therefore nobody will use the opposite name because the each creature has totally different style pattern on finger. By this technique, lady will get automatic permission to go away the hostel while not wastage of your time and warder additionally get whole day report of all women within the hostel.

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