

Visitor Entry App

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Abstract:- IT has a significant impact on all real-time systems in today's world of technological rivalry. The development and deployment of an application-based visitor management system is the subject of this research project. It's a Node js-based software application with a MySQL database in the backend along with API to store guest information. This app includes all of the necessary visitor information and exit functions. Users can compile guest reports, see notification lists, and pre-book visits using the program's special capabilities.

Keywords:- My SQL, Node js, Backend, API.

I. INTRODUCTION

In the competitive world of technology, the impact of IT has a profound effect on all real-time systems. Different management systems have been used to achieve business organization in achieving profitability, standards, and additional business development. At the colleges, many visitors come in and out of the office to meet with departmental officials for a variety of reasons and often face the challenge of following up on visits. Today most universities follow a hands-on program and some mainstream universities follow suit default visitor system. The main purpose is to solve the problem of appointment and this successfully record guest information for future purposes. After all, nobody wants to be under the old sign in the system that includes pen and paper when they arrive at the place doors. The current system for working with security managers is that security personnel at the facility entrances enquire visitors who come, provide identity proof and then provide the details of their visit, all this takes lot of time and there is a rush of visitors. The present technique for collaborating with security managers is for security staff at facility entrances to question visitors, obtain identity evidence, and then offer information about their visit; all of this takes time, and there is a high volume of visitors. This system's unique features include the ability for users to compile visitor reports, examine notification lists, and pre-book visits. This technology will aid management in providing easier management and communication among staffs. With this app the data can be stored in the database which can also be used for future references. In the visitor entry app, the visitor can meet with concerned host by filling out basic details and submitting it. Visitors can pre-book prior to their arrival to keep the process as streamlined as possible. The host can either accept or reject the requests, when the visitor's check-in their hosts will be immediately notified, no matter where they are, office security is also increased by providing necessary documents as needed. The security staff allows the visitor based the status shown in the app. Reporting the visits can offer valuable insights, being

able to search and generate reports by criteria can help create a clear picture of things like peak visiting hours when the institution might need increased security measures. In this way time consumed on processing all these steps are reduced.

II. LITERATURE REVIEW

Nitin Sharma, Karthik Gautam, Ved Prakash Mishra, "Covid-19 Visitor Management System", 2021: [1] This paper primarily addresses the issue that arrive throughout the covid period. A revolutionary smart technology that automatically handles guest admission into dwellings or premises. This document outlines the various devices that must communicate with one another in order to provide the best possible infection protection. It keeps track of visitors, their physical condition as they enter the premises, safety equipment, and so on.

Umapathy Eaganathan, Haiya Hamood Al Ghaithi "A Brief Study and Implementation of Visitor Management System", 2016 [2] The aim of this study is to develop a web-based system to protect students staying in university housing. This paper outlines the system's functions, which include the ability to generate visitor reports, monitor notification lists, send visitors instant messages, assign parking, and accept payments by credit card.

Vaibhavi Prasad, Neha Deelip Kumar, Shraddha, "Visitor Management System Using Convolutional Neural Network", 2020 [3] The proposed solution addresses the system's dependability and security, as well as the presence of unauthenticated or fictional visitors on the premises of the company. The cloud storage system will save all of the information (Firebase). Face recognition is used to detect the system.

Smitha A, Kunal Kulkarni, Santhosha Rao "Smart Phone-Based Cost-Effective Visitor Management System for Smart Offices", 2018:[4] This paper describes a low-cost technology solution for smart offices that takes advantage of the capabilities of Android smartphones and low-cost Node Wi-Fi modules available on the market.

Sampada Khot, T. P. R. a. M. R., 2015, "Visitor Management System Using GSM" [5] The purpose of this article is to provide an overview of the Visitor Management System, which was designed to replace information management tasks and traditional visitor registration.

McArthur, S. (2000). Beyond carrying capacity: "Introducing a model to monitor and manage visitors' activity in forests". In: Font. X. AND Tribe, J. (Editors).

Forest Tourism and Recreation: Case studies in environmental management.

[6] Demand for ecotourism and outdoor leisure is growing, and land use issues are becoming more apparent. Tourism and recreation management in forests can provide additional revenue to assist offset the expenses of sustainable timber production while also encouraging biodiversity protection.

[10] Majid Al-Kuwari, Abdulrhman Ramadan, Yousef Ismael, Laith Al-Sughair, Adel Gastli, Senior Member, Mohieddine Benammar, Smart-home automation using IoT-based sensing and monitoring platform, 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018), Doha, Qatar, April 2018, <https://doi.org/10.1109/CPE.2018.8372548>

[10] Majid Al-Kuwari, Abdulrhman Ramadan, Yousef Ismael, Laith Al-Sughair, Adel Gastli, Senior Member, Mohieddine Benammar, Smart-home automation using IoT-based sensing and monitoring platform, 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018), Doha, Qatar, April 2018, <https://doi.org/10.1109/CPE.2018.8372548>

Abdulrhman Ramadan, Yousef Ismael, Majid Al-Kuwari, Adel Gastli, Laith Al-Sughair, Senior Member, Mohieddine Benammar, “**Smart-home automation using IoT-based sensing and monitoring platform**”, 2018 [7] Home automation and monitoring are utilized to maintain comfortable living conditions in home. Humans have many different types of comfort requirements in their homes. Thermal comfort which is related to temperature and humidity is the most important of these categories, followed by visual comfort which relates to colors, light and hygienic comfort, which is related to air quality. System can be designed to monitor these qualities and keep them within an acceptable range.

III. PROPOSED METHOD

The current system of security management operates for security personnel at the entrances to ask for incoming visitors, provide proof of identity and provide details of their visit, all of which are time consuming and crowded with visitors. Special features of this are that it allows users to create visitors reports, view notification lists, and pre-book visitors. In the future this program will help to provide easier management and communication.

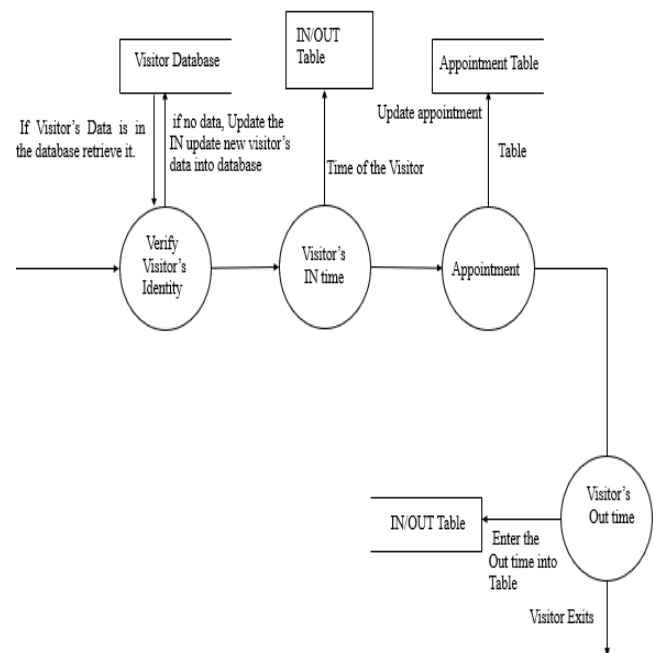
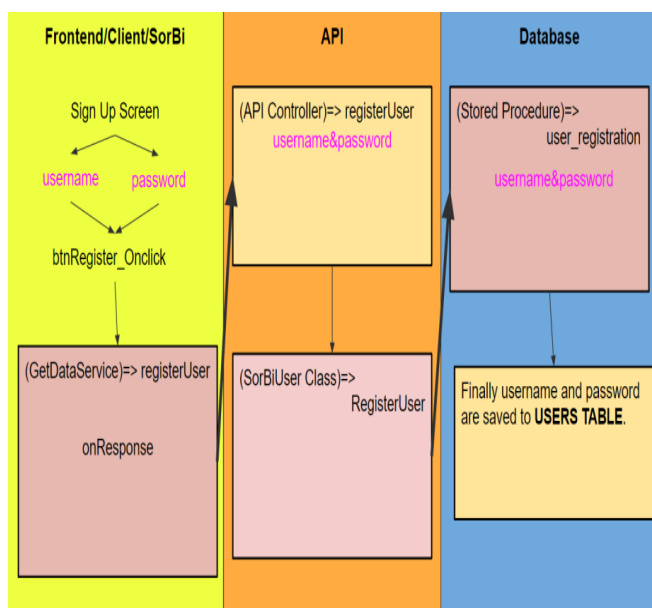


Fig 3.1: Data Flow Diagram

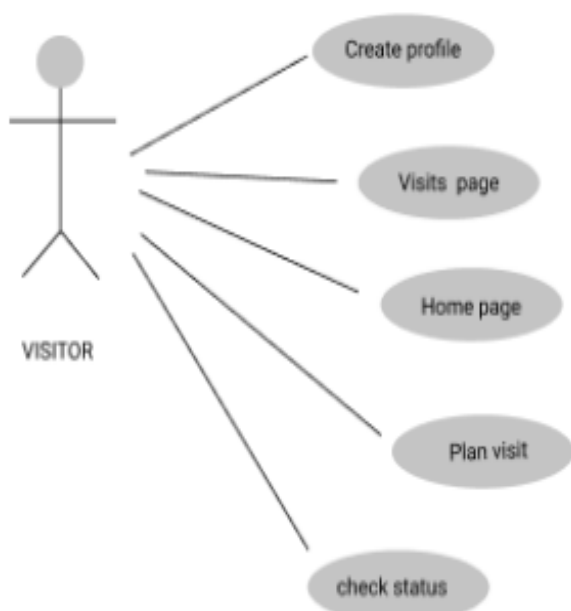
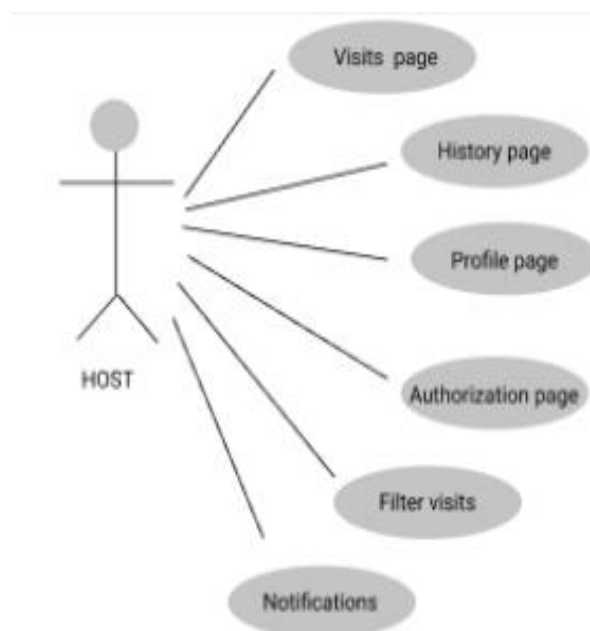
With this app the data can be stored in the database which can also be used for future references. In the visitor entry app, the visitor can meet with concerned host by filling out basic details and submitting it. Visitors can pre-book prior to their arrival to keep the process as streamlined as possible. The host can either accept or reject the requests, when the visitor's check-in their hosts will be immediately notified, no matter where they are, office security is also increased by providing necessary documents as needed. The security staff allows the visitor based the status shown in the app. Reporting the visits can offer valuable insights, being able to search and generate reports by criteria can help create a clear picture of things like peak visiting hours when the institution might need increased security measures. In this way time consumed on processing all these steps are reduced.

A. Working

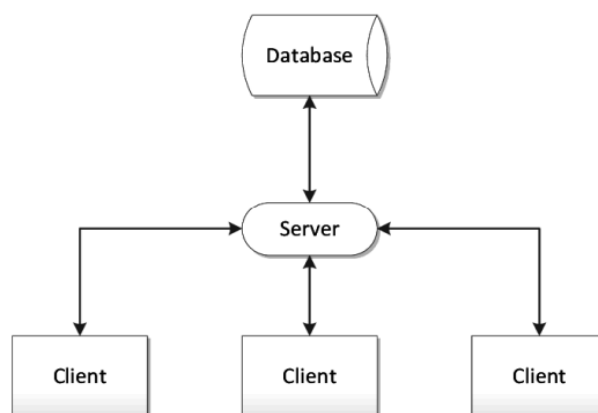
Visitor needs to fill his details in this app. He needs to login using his user id and password. In the meantime, Visitor's host will also receive a notification that a guest has arrived for him. During the check-in, Visitor needs to enter the User ID and password which will be verified from the database. If the User is already inside, then he can successfully Check-out. If the details do not match that of database, he will get an error dialog box. By building this app we can avoid manual work of writing all the details of the visitor.

**Fig 3.2:** Workflow**B. Design**

A use case diagram is a horizontal ellipse that represents a sequence of actions that provide an actor with something of measurable value. A human or other system that participates in one or more interactions with the system is referred to as an actor. Stick figures are used to represent actors. Solid lines in use case diagram which denotes relationships between use cases and actors. When an actor engages in a use case-specific interaction, there is a connection. The arrowhead is commonly used to represent the beginning of a relationship or a key person inside a use case.

**Fig 3.3:** Use-case diagram of Visitor**Fig 3.4:** Use-case diagram of Host**C. Requirements Specification**

- Digital Check-ins – Allows visitors to check-in online, removing the need for paper.
- Safe and Secure—Only the relevant authorities has access to visitor data.
- Notifications—Easy notification of concerned faculty members.
- Real-time Access Control—For a secure environment, get the real-time status of visitors accessing the college grounds.
- Instant Push Notifications- This app sends a mobile app notice to the host when guests arrive.
- Approve/ Reject Visitors—With a personalized message, the host can approve or disapprove their visitor.

D. Concept of Client-Server Hierarchy**Fig 3.5:** Client-Server Hierarchy

IV. RESULTS AND DISCUSSION

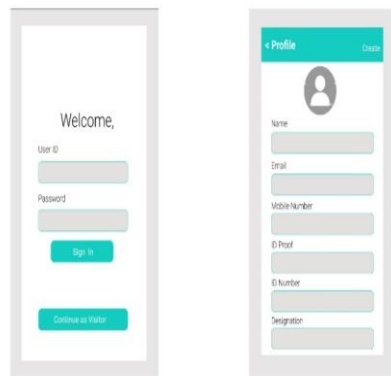


Fig 4.1 : Welcome page

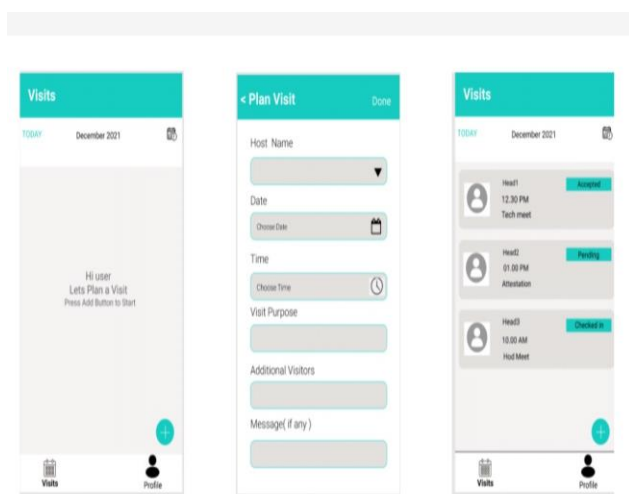


Fig 4.2: Main Page

V. CONCLUSION

Today's world security becomes the first security for every sector. Colleges should implement a visitor management system for the security. Selecting the right one is important. The system should work well with low cost, easy to use and easy to find hardware that can be quickly picked up. Visitor entry provides high level of security and enhances the productivity of the office. The main goal of this project is to implement and design visitor entry app.

REFERENCES

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