

Authenticated Gate-Pass-Generating Application Using QR-Code

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ABSTRACT: The project aims to develop a system for generating gate passes for students using a QR code, which will be issued by faculty members and the Head of Department (HOD) of an educational institution. The system aims to simplify the gate pass generation process, reduce manual efforts, and enhance security measures. The proposed system will enable the faculty and HOD to generate gate passes for students electronically. The gate passes will contain a unique QR code that can be scanned by security personnel for authentication. The project is expected to streamline the gate pass generation process and improve the overall efficiency and security of the educational institution.

KEYWORDS: Gate-pass, QR-code, Authentication.

I. INTRODUCTION

Generating gate passes for students is an essential aspect of ensuring the safety and security of any educational institution. Traditional methods of generating gate passes involve manual efforts, which are time-consuming and prone to errors. To address these challenges, we propose a new system for generating gate passes using a QR code.

II. RELATED WORKS

R. Ganesan and S. Krishnamoorthy's QR Code-Based Smart Gate Pass System for Educational Institutes - This study offers an effective gate pass system that authenticates via QR codes. The system is intended for use in educational institutions to track student and staff admission and exit.

QR Code-Based Attendance Management System for Colleges by S. Sivasankari and S. Hemalatha - This paper presents a QR code-based attendance management system for colleges. The system allows students to mark their attendance by scanning a QR code displayed in the classroom using their mobile phones.



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V. R. Amirtha Varshini and S. Sathya's "A Smart QR Code-Based Security System for Colleges" This study suggests a smart QR code-based security system for universities that can be used to track student and staff admission and exit. The system is intended to improve campus security by preventing unauthorized entry.

N. B. Manjula and M. N. M. Gowda's "Design and Implementation of QR Code Based Gate Pass System for Educational Institutes" - This study describes a QR code-based gate pass system for educational institutions which is authenticated via a mobile application. The system is intended to be user-friendly and efficient in controlling student and staff admission and departure.

QR Code-Based Gate Pass Management System for Colleges by S. R. Sivakumar and R. S. Rajesh - This paper proposes a QR code-based gate pass management system for colleges that uses a web application for authentication. The system is designed to be scalable and easy to use and can be customized to meet the specific needs of each college.

III. METHODOLOGY

Specify the function and boundaries of the gate pass: Establish the areas or events for which the gate pass will be utilized, its intended application (such as student identification or access control), and any other pertinent information.

Gather the relevant data: assemble the data that must be printed on the gate pass, including the student's name, picture, ID number, course or program, and any other pertinent information.

Create the gate pass design: Using graphic design tools, create a visually appealing design for the gate pass. Add all relevant details, such as the QR code, student portrait, and college logo.

Generate the QR code: Using a QR code generating tool, generate a unique QR code for each student. Provide any essential data in the code, such as the student ID number and access information.

Print the gate passes: Use high-quality paper and a printer with high-resolution settings to print the gate passes. To avoid copying or forging, use paper that is holographically marked or watermarked.

By using a QR code reader or the camera on your smartphone to check their readability. Make sure they can be scanned and point to the right information

Deliver the gate passes to the students, along with any instructions or usage recommendations that may be required at the beginning of each semester or school year.

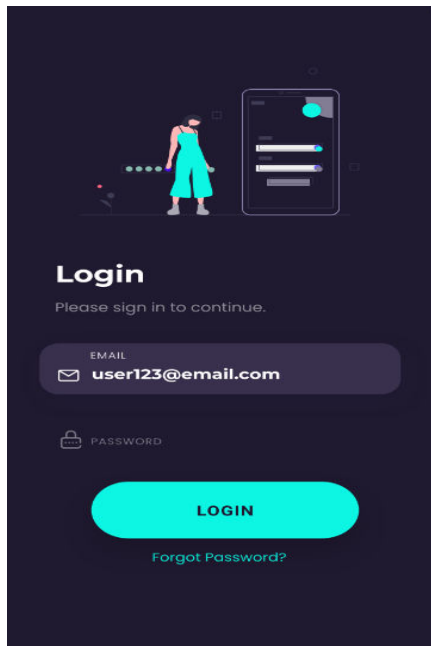
Monitor and track access: To keep track of each gate pass holder's entry, use a barcode scanner or a smartphone app. By doing so, you can make sure that only people with the proper credentials are admitted and you can spot any potential security holes.

Overall, creating a gate pass with a QR code for a college can help streamline student identification, attendance tracking, and access control. By following a clear methodology and using high-quality materials, you can create an effective and reliable gate pass system for your college.

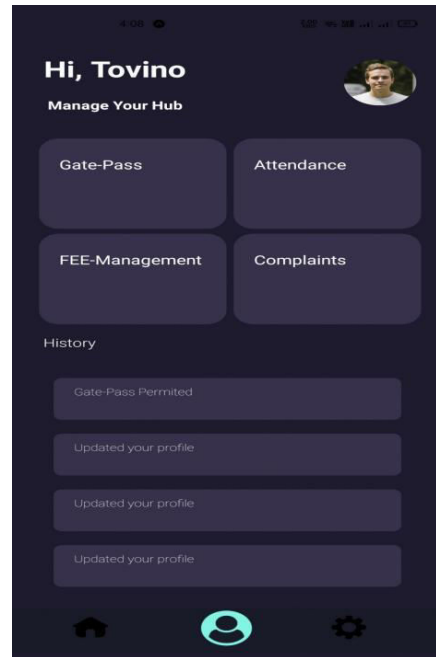
IV. EXPERIMENTAL RESULTS

The Figs show the application that will be provided to Teachers and able the access to to sever with a unique username and password . The application will be maintained by the Department Authorities .

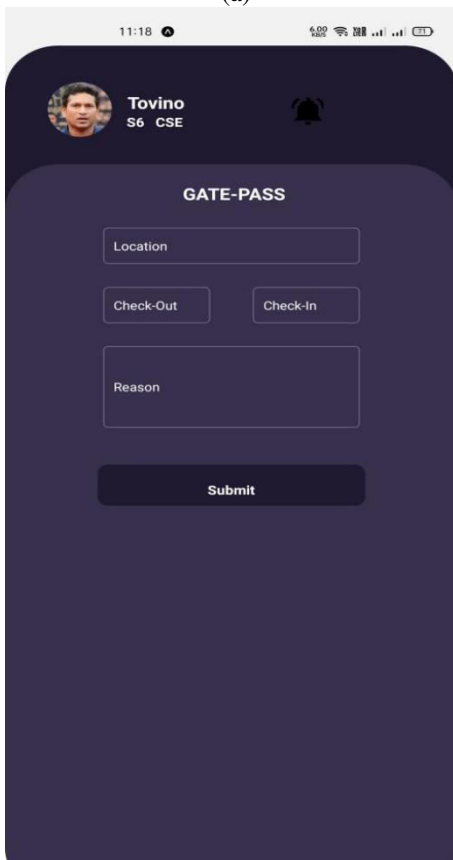
Fig a Student's Login Page . Fig b Home page . Fig c Gate-Pass Request Form . Fig d Gate-Pass QR-Code provided for the students



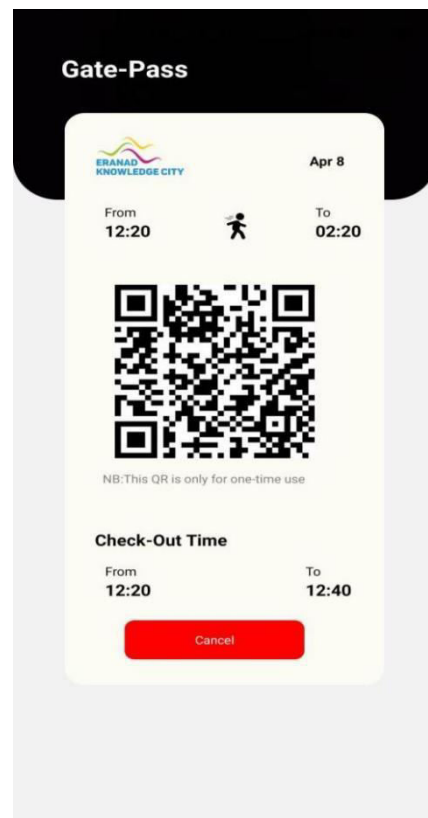
(a)



(b)



(c)



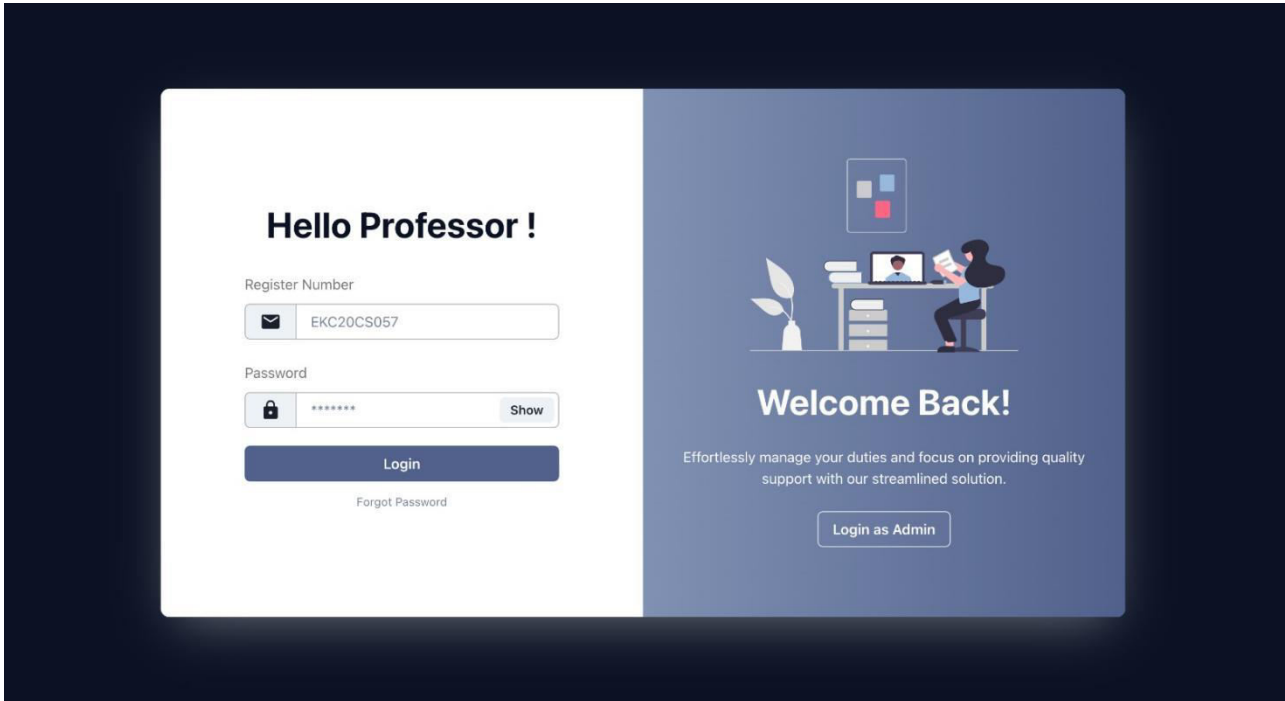
(d)



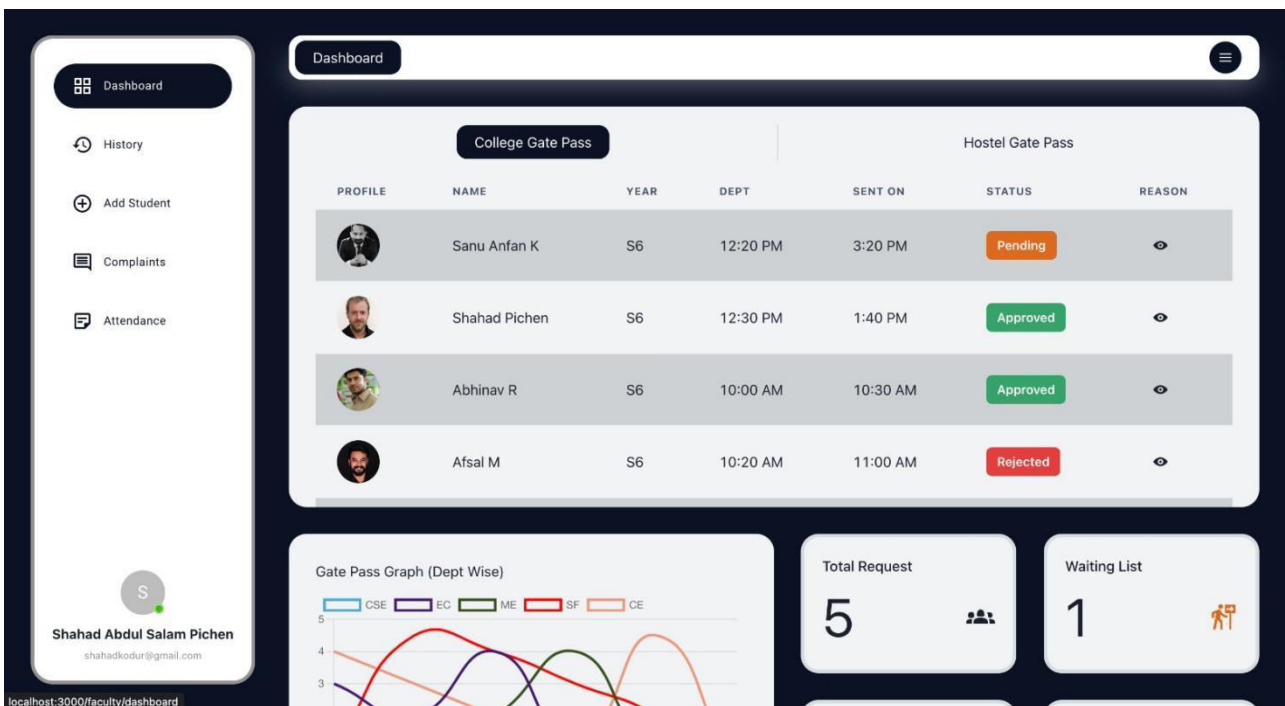
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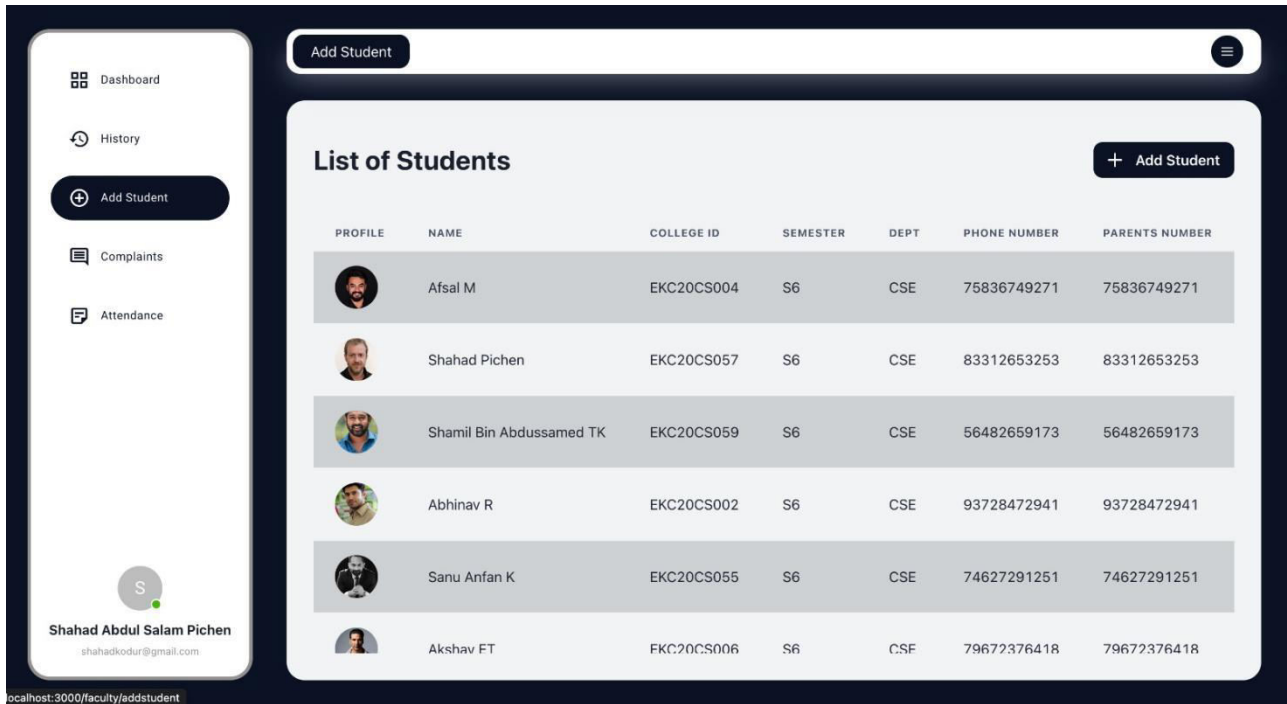
ONLINE WEBSITE FOR DEPARTMENT AUTHORITES:



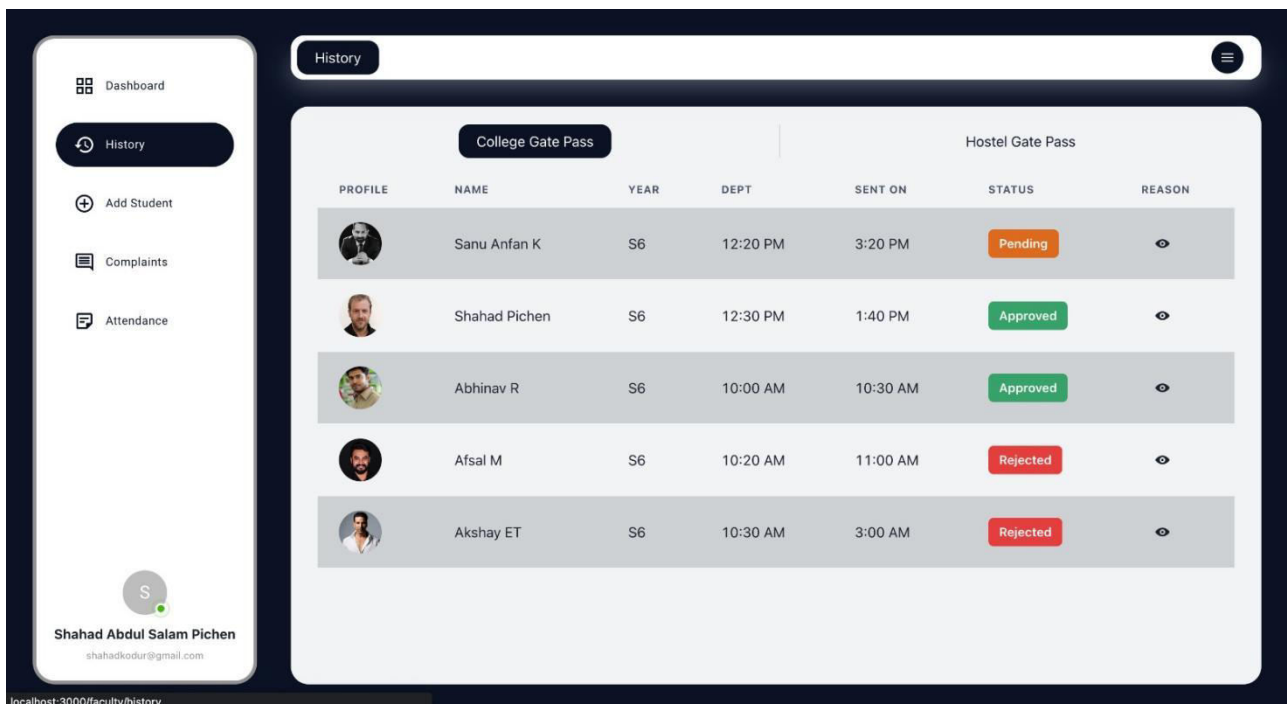
(a)



(b)



(c)



(d)

Fig a show the Department Authorities Login Space . Fig b Dashboard shows all the information regarding Gate-Pass Applicants. Fig c shows the number of Students in the Class . Fig d All the previous applicants Log details with provided on the History tab



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V. CONCLUSION

The proposed system offers a comprehensive solution to the challenges faced in the traditional gate-pass generation process. By developing a system that streamlines the gate pass generation process, eliminates manual labour, and enhances security, educational institutions can create a safer and more efficient environment for students and faculty alike.

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- [10] "QR Code-Based Security System for Campus Access Control" by P. Thakur, V. Jain, and A. Kumar. This paper describes a QR code-based security system for campus access control that uses a centralized database for authentication and authorization.