

STREAMLINING HOSTEL OUTING MANAGEMENT PLATFORM

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ABSTRACT

Hostellers outing system is a comprehensive solution designed to simplify and enhance the process of organizing and managing outings for individuals residing in hostels. This system offers user friendly interface that caters to both administrators and hosteller .as it is user friendly platform designs to streamline the outing request process for hostellers and administrators alike. Hostellers can easily submit requests and receive response from warden. The Hostellers Outing System serves as an integrated solution to facilitate the coordination and execution of outings for hostel residents. With an intuitive user interface, the platform caters to the needs of both administrators and hostellers, ensuring a seamless experience for all stakeholders involved. Hostellers benefit from a straightforward request submission process, allowing them to communicate their outing plans effortlessly. Administrators, particularly wardens, can efficiently manage and respond to these requests, promoting effective communication and organization. Key features of the system include real-time notifications, status tracking, and a centralized database for outing-related information. The platform prioritizes accessibility, making it easy for users to navigate and engage with the system. By leveraging technology, the Hostellers Outing System not only simplifies the outing management process but also enhances overall communication and collaboration within the hostel community.

1. INTRODUCTION

The "Streamlining Hostel Outing Management System" project aims to revolutionize and enhance the process of organizing and managing outings for hostel residents. Hostel outings play a crucial role in providing students with opportunities for recreation, team building, and relaxation. However, the current manual and often cumbersome processes involved in planning and executing these outings can lead to inefficiencies and challenges. This project proposes the development of a comprehensive management system that leverages technology to streamline the entire lifecycle of hostel outings. By integrating

userfriendly interfaces, automation, and data analytics, the system aims to improve the overall efficiency, transparency, and user experience associated with organizing and participating in hostel outings.

Automation of Workflow: Implement automated workflows for outing planning, approval processes, and communication, reducing the dependency on manual interventions. This includes features such as online submission of outing proposals, automated approval workflows, and real-time status updates.

User-Friendly Interfaces: Develop intuitive and user-friendly interfaces for both administrators and hostel residents. The



interfaces will facilitate easy submission of outing requests, tracking of approvals, and provide a centralized platform for accessing outing-related information.

Resource Management: Implement a resource management module to efficiently allocate and track resources such as transportation, accommodation, and finances. This ensures optimal utilization of resources and prevents conflicts in scheduling. By addressing these objectives, the Streamlining Hostel Outing Management System aims to transform the traditional outing management process, fostering a more organized, efficient, and enjoyable experience for hostel residents and administrators alike. 2 Authorization is the process of specifying access privileges to resources related to information security and computer security. Authentication is the way of determining individual identity. The two terms seem to be similar but differ in the process.

The objective is to provide a more secure, authenticated and authorized environment to hostel students regarding their out-in permission which reduces pen paper work, frauds and also saves time. The traditional approach uses a manual process and may not be secure and most of the guardians using a fax based approach which cannot provide the best authorization. This application provides a more secure way to guardians to permit their ward to go out of college campus through a message from register login. Along with quality education, parents usually expect that their wards are safe at the school/college campuses. Most schools/college hostel wardens allow their students to go on an outing during holidays/ week-offs.

The application leverages server-side scripting, client-side scripting, and web frameworks to create a dynamic and engaging user experience. Security measures, authentication protocols, and notification systems are integrated to safeguard user data and ensure a secure outing management environment. 3 On the hardware front, the project demands a robust server infrastructure with adequate storage and processing capabilities. Network infrastructure, backup systems, and power backup are implemented to ensure the availability and reliability of the system. The scalability of both hardware and software components is emphasized to accommodate potential growth in users and data. Through this Hostellers Outing System, we aim to revolutionize the outing planning process within hostel communities, providing an efficient and transparent platform that enhances the overall experience for hostelers and administrators alike. This project embodies a commitment to user-centric design, technological excellence, and the seamless integration of modern web technologies to simplify and elevate the outing management process in hostel environments.

1.1 APPLICATIONS

Efficient Outing Request Management: Hostellers can easily submit outing requests through the user-friendly interface, streamlining the entire process. Administrators can efficiently manage and process these requests, ensuring a systematic and organized approach to outing planning. **Record Keeping and Tracking:** The system maintains a comprehensive record of outing requests, approvals, and rejections, creating



a transparent and traceable history. Administrators can track the outing activities, making it easier to monitor the frequency and nature of outings for better hostel management.

User-Friendly Interface for All Users:

The platform's user-friendly design ensures that both administrators and hostellers can navigate the system with ease, promoting accessibility for all users. Clear interfaces and intuitive features enhance the overall user experience, making it simple for individuals to engage with the outing management process. **Enhanced Security and Safety:** By centralizing outing requests and approvals, the system contributes to better security and safety measures for hostel residents. Administrators can review and assess outing plans to ensure they adhere to safety guidelines and hostel policies.

1.2 BENEFITS

Accuracy: Compared to the traditional system, the gate pass management system is more accurate, as there is less scope for wrong entries

Easy Reporting: Retrieving visitor info usually takes hours in a traditional system. On the other hand, Gate Pass Management System can significantly reduce the retrieving time to few minutes.

Pre-Registration: Admin can pre-register all the regular visitor details with the system. This allows the visitor to sign in quickly, allowing loads of time.

Significant Savings: Automation can significantly reduce the cost of security operations. The system can substantially reduce the stationary for maintaining the records. It can also reduce the costs for

infrastructure and staff for maintaining the same.

2. LITERATURE SURVEY

Norarina Ezzati (2017) discussed the case study conducted on E- Outing system at Sekolah Menengah Sains Dungun School where his school management is currently using manual procedure system. The paper also has outline development approach of E-Outing System that has implemented record management system using adopted prototype design. Two types of evaluations are conducted, where the first is based on the expert evaluations and the other is on user acceptance. With evaluation outcomes, EOS is redesigned and redeveloped. Final user acceptance evaluation provided that, EOS is rated highly consistency, perceived usefulness, ease of use, efficiency, satisfaction, and user interface with minimum mean score of 4 as per the data collected. Thus it can be the paper finally concluded that EOS has improved the usability of outing management system in Sekolah Menengah Sains Dungun. Sudhakar Avareddy (2016) C proposed web based application for outing system to the hostel students. The authors discussed about the permission procedure to leave the campus. In this paper student sends request to warden for outing and warden provides remark on the request. The data record is saved and a notification is sent to food manager of the hostel.

This notification helps the manger to suggest the cooking people about the strength of the students who are going to dine on the particular instant. WBA enables information management system for organization makes easy



accessible. According to Cho (2009), record management system is a management system used to direct and control an organization with respect to records. Record management activities include organizational structure, maintaining, planning activities, and improving record keeping policies and etc. Incredible volume of record and various formats requires an organization to manage it effectively (Porter, 2006). Record management system services are applicable to any organization. Record management ensures the rapid availability of the information where and when it is needed. Besides, it also helps free flow of record through an organization (Makhura, 2005). In addition, by allowing only authorized operations and actions against them, record management systems can secure records properly (Porter, 2006). The official integrated development environment (IDE) for Google's Android operating system is Android Studio. It takes the place of the Eclipse Android Development Tools (ADT) 6 as the primary IDE for creating native Android apps. The features provided in the current stable version: Gradle based build support, rich layout editor that allows users to drag-and-drop components, refactoring capability, Pro Guard integration and app-signing capabilities Support for building Android Wear apps and etc. University Campus Online Automation Using Cloud computing. They proposed the system by adopting technology model (UTAUT) to determine the user acceptance of visitor application system. Gate pass Management System is discussed .The objective and the scope of this paper is to

record the details, various activities of the students. Face matching recognition system.

This application enables capturing new visiting record by auto-clock in/out, and assignment of visitor pass. Gate Pass Management System .The objective is to record the details and various activities of the user. It simplifies the task and reduces the paperwork. Online Gate Pass Application form for Hostel Students is discussed. The objective is to record the details and various activities of the user. It simplifies the task and reduces the paperwork. Web-Based Hostel Management System For involving Sustainable Performance of Educational Institutions, is which encourages them to spare the records of the students about their rooms and other things. Visitor Gate Management System to record the details and various activities of the users. The objective is to reduce the paperwork. RFID Based Campus Management System: Access Control System .It consists of mainly two parts transponder and interrogator for access control. Solving hostel student issues using mobile application is an application for solving Student daily life issues through mobile application. Mobile application for out pass generation, is an application for creating gate pass ticket for entering into the university campus.

3. SYSTEM DESIGN

3.1 SYSTEM ARCHITECTURE

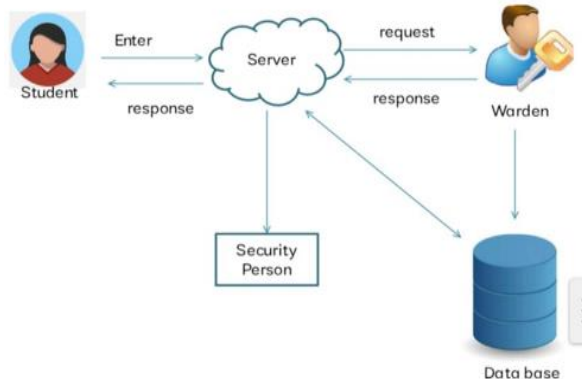


Figure 1: System Architecture

Student: A component that represents the user who wants to apply for outpass. It sends requests to the server, such as students details required and also intime, out time, destination etc. **Warden:** A component that represents the authority who manages the hostel rooms and the outpass requests. It sends requests to the server, such as approving or rejecting requests sent by the students. And managing the outings of students. They can also view the status, such as the the check-in and check-out times. They can also generate reports on the hostel activities, such as the number of requests, the number of outings, the average duration, and the most frequent destinations.

Security Guard: A component that represents the staff who monitors the hostel entrance. It receives responses from the server, such as the list of students who have got outpass approvals and 11 rejections. It also verifies the outpass generated by the warden for student and verifies the details, such as the name, room number, purpose, destination, and duration of the outing.

Server: A component that receives requests from the student and the warden, processes them, and sends responses back to them. It

also sends responses to the security guard. It interacts with the database to store and retrieve data.

Database: it consists complete information about student registrations, students information, student, warden, security passwords and all.

A hostel outing management system is a software system that allows students to request and manage their outings from the hostel. The system consists of four modules: student, server, warden, and security guard. The student module is responsible for storing the student’s information, such as ID, name, room, hostel, password, and outing status. The student can use this module to log in, request an outing, check the status of the request, and log out. The server module is responsible for storing the database of all the students and their requests, as well as providing an API for the other modules to communicate with. The server module also contains the logic for validating and processing the requests, such as checking the availability of the outing slots, sending notifications to the warden and the security guard, and updating the database.

The warden module is responsible for storing the warden’s information, such as ID, name, hostel, and password. The warden can use this module to log in, view the requests, approve or reject them, and log out. The warden module also communicates with the server module to update the status of the requests and the database. The security guard module is responsible for verifying the student’s identity and outing status when they enter or exit the hostel. The security guard module also communicates

with the server module to update the database.

3.2 ACTIVITY DIAGRAM:

An activity diagram is a type of diagram that shows the flow of activities, actions, and processes within a system or process. It is a kind of behavioral diagram that describes what should happen in the system that is being modeled. Activity diagrams can be used to model different levels of abstraction, such as business workflows, use cases, classes, and operations. Activity diagrams use various symbols and notations to represent the components and the flow of control and data.

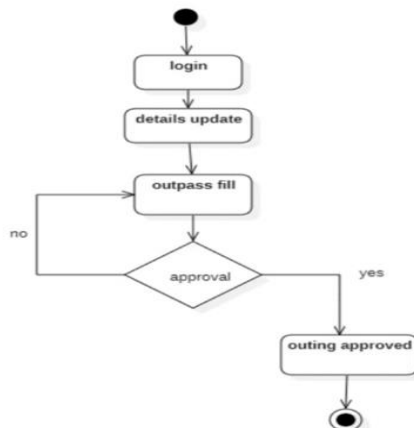


Figure 2 : Activity Diagram

4. OUTPUT SCREENS

Student Registration

Student ID	<input type="text" value="S_3560977"/>
Name	<input type="text" value="Meghana"/>
Rollno	<input type="text" value="549"/>
Branch	<input type="text" value="cse"/>
Year	<input type="text" value="IYA"/>
Room No	<input type="text" value="A-404"/>
Mobile Number	<input type="text" value="9995678996"/>
Parent Number	<input type="text" value="9987654333"/>
Email	<input type="text" value="gadilaprasuna@gmail.co"/>
UserName	<input type="text" value="Meghana"/>
Password	<input type="password" value="*****"/>
Choose Profile Picture	<input type="button" value="Choose File"/> image.jpg
<input type="button" value="Register"/>	<input type="button" value="Reset"/>

Figure 3 : Student Registration Page

Student Login



Hostel Outing Management System

Home Student Warden Security

Welcome To Student Login Page

UserName:
 Password:

Figure 4: Student Login Page
Student Application



welcome To Student Meghana

Applying GatePass by Meghana

UserName:
 Roll No:
 In Time:
 Out Time:
 Reason:
 Place:

Figure 5 : Student Application

Student Application Status



Figure 6 : Student Application Status

Security Login



Figure 7: view gate pass page

5. CONCLUSION

Additionally, the Hostel Outing Management System promotes inclusivity by accommodating various preferences and requirements. Its flexibility allows residents to specify unique needs, such as medical considerations or special accommodations, ensuring that outings are tailored to

individual requirements. This feature contributes to a more inclusive and supportive community environment. Furthermore, the system's integration with communication channels facilitates quick responses and updates, fostering a sense of community engagement. Residents can stay informed about the status of their requests and receive timely notifications, promoting transparency and trust between residents and hostel authorities. By digitizing the outing management process, the system minimizes paperwork and manual efforts, contributing to environmental sustainability. This not only aligns with modern eco-friendly practices but also reflects the hostel's commitment to adopting efficient, technology-driven solutions. In conclusion, the Hostel Outing Management System goes beyond mere administrative convenience; it actively cultivates a culture of responsibility, inclusivity, communication, and sustainability within the hostel community.

6. FUTURE ENHANCEMENT

A potential future enhancement for the Hostel Outing Management System could involve the integration of a geolocation feature. This feature would enable real-time tracking of outing groups, ensuring that hostel authorities can monitor their location during the outing period. This not only enhances the overall safety and security of residents but also provides a valuable tool for quick response in case of emergencies. Additionally, implementing an automated feedback system could further enhance the system. Gathering feedback from both residents and outing organizers would provide valuable insights into the success of



each outing, allowing for continuous improvement. This feature could include a rating system, comments section, and suggestions for future enhancements, fostering a collaborative environment for refining the outing experience. Moreover, incorporating machine learning algorithms to predict and optimize resource allocation for outings could be a forward-looking enhancement. By analyzing historical data, the system could suggest optimal routes, budget allocations, and other logistical details, contributing to more efficient planning and utilization of resources. These enhancements would not only elevate the functionality of the Hostel Outing Management System but also align it with evolving technological trends and the increasing need for advanced safety measures and user experiences. Another future enhancement for the Hostel Outing Management System could involve the incorporation of a mobile application. Developing a dedicated mobile app would provide residents with a convenient and accessible platform to submit outing requests, receive notifications, and access relevant information on the go. This would enhance user engagement and streamline the overall user experience. Furthermore, introducing a dynamic scheduling feature could be beneficial.

This feature would allow residents to view and select available time slots for outings, minimizing conflicts and ensuring a more efficient allocation of outing resources. It could also provide hostel authorities with a clearer overview of the demand for outings at different times, aiding in better planning.

39 Integrating a communication platform

within the system could facilitate seamless interaction among residents and authorities. A built-in messaging system or discussion forum could serve as a centralized hub for sharing updates, coordinating group activities, and addressing any concerns or inquiries, fostering a sense of community within the hostel. Lastly, exploring the integration of smart technologies such as RFID or QR code systems for outing verification and attendance tracking could enhance the overall efficiency and accuracy of the outing management process, reducing manual efforts and minimizing the likelihood of errors. These forward-looking enhancements aim to leverage technology to create a more user-friendly, efficient, and interconnected Hostel Outing Management System. Future works includes generation of out-pass through biometric features. To detect facial features accurately for applicants Initially when the person need to go out from their campus the digital image of the person is captured by the camera and the facial details are extracted and matched with the image from database , once both are matched then out-pass will be generated otherwise it will be rejected.

The goal of this system is to generate gate-pass through facial recognition. Also, the level of hierarchy can be increased by adding further number of faculty in charge which will help in times when a certain faculty is unable the respond to the requests. Also the further notifications (Such as: Laundry services, Food related issues and schedule changes for mess, maintenance regarding water and electricity supply, hospitality) related to hostel can be provided to the students on the same



platform. This integrated version will facilitate easier hostel management. A separate complain portal can be provided for students to register hostel related issues and inconveniences caused to them.

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