WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Hostel Allocation Management System

Ms. Perachi selvi M[1], Dhinesh D[2]

[1-2]Department of Artificial Intelligence and Machine Learning, Sri Shakthi Institute of Engineering and Technology, Coimbatore

ABSTRACT :

The different activities involved in hostel management include registration of students, room allotment, attendance checking, handling of complaints, and leave management. The traditional ways of hostel management are based on paperwork which is time consuming and prone to errors and difficulties in maintaining records. In order to solve such problems, the Hostel Allocation Management System is designed as a web-based application that makes it easy to conduct hostel management and room allocation processes. The system will have separate login facilities for students and wardens as well as verification of college email of the student through One Time Password (OTP). The students will be able to fill their details, choose rooms, lodge their complaints regarding maintenance, apply for leaves and outpasses while wardens will be able to manage student details, allot rooms, check attendance, take care of complaints, accept or reject requests, and post announcements. Also, there will be popup reminders for pending complaints when the warden logs in.

Keywords: *Hostel Allocation Management System, Room Allocation, Student Management, OTP Verification, Complaint Management, Attendance Management, Web-Based Application.*

INTRODUCTION

Hostel management is a crucial function carried out in educational establishments, particularly in colleges which offer boarding facilities to their students. There are various functions which are undertaken by a hostel manager which include the registration of the students, allocating the rooms to the students, checking the attendance, complaints handling, and leave management. However, traditional methods of carrying out hostel management functions have relied heavily on manual systems which pose challenges in tracking of information and allocation of rooms. Thus, there is a need for computerization of hostel management.

Introduction of Hostel Allocation Management System is the introduction of an online software program intended to ease room allocation and student management in hostels. The system allows students and wardens to use distinct login credentials, along with the verification of college email addresses through One Time Password. Students have the option to provide their personal details, select their preferred rooms, report any maintenance issues, and make applications for leave and outpasses. The wardens will be able to manage records of students, hostel blocks, availability of rooms, and allocation of rooms from a single point.

The main objective of the Hostel Allocation Management System is to provide a simple, reliable, and organized platform for managing hostel accommodation and administrative activities. The system includes a complaint management feature that displays popup notifications to wardens when unresolved complaints are available during login. This helps wardens identify pending maintenance issues and take appropriate action. By integrating room allocation, student information, complaint tracking, and request management into a single application, the proposed system aims to improve administrative efficiency, enhance communication between students and wardens, and simplify the overall hostel management process.

Literature Survey/Review

The current systems of hostel management include the automation of core tasks such as the registration of students, allocation of rooms, attendance management, and maintaining records. The conventional approach for hostel management involves the use of manual registers, which could result in time wastage and inefficiency in updating records and processing the demands of students. Web-based management systems offer a single portal where all the information regarding the students can be stored, and the management of rooms is done efficiently.

Complaint management and notification systems are also other key components of digital hostel management. A complaint management system will enable the students to submit maintenance complaints to the system and for the wardens to keep track of the status until the matter is sorted out. Notifications will be helpful for the administrators to find out about the pending complaints. In a similar manner, leave and out pass management through digital means can make it easy to submit, process, and track the complaints of the students. The Hostel Allocation Management System that is recommended brings all these components together in one web-based application.

Methodology

The Hostel Allocation Management System is an online software system built with the aim of making the hostel room allocation process and the record keeping for the students easier. The Hostel Allocation Management System provides different log-in options for both students and the wardens. The students are required to use their one-time password to access the system. After successful login into the system, the student enters his personal details which include the name, register number, department, year and contact number.

The Hostel Allocation Management System enables the wardens to manage student records, hostel blocks, room records and room occupation in one single system. Wardens can allocate the rooms as per the availability and the preference of the students. Students are allowed to lodge maintenance issues, leave and out-pass requests through the system. These requests can be approved or rejected by the wardens. Besides, the wardens can check the attendance, status of the complaint and publish announcements.

Moreover, the system contains a feature for managing complaints to enable wardens to be able to detect maintenance problems that have not yet been solved. Once the warden logs into the system, a pop-up alert will show him the pending complaints so he can act on them accordingly. Complaints and requests from students can be monitored through the application. Through combining the functionalities of student management, room allocation, complaints management, and requests processing into one software, the goal of Hostel Allocation Management System is achieved.

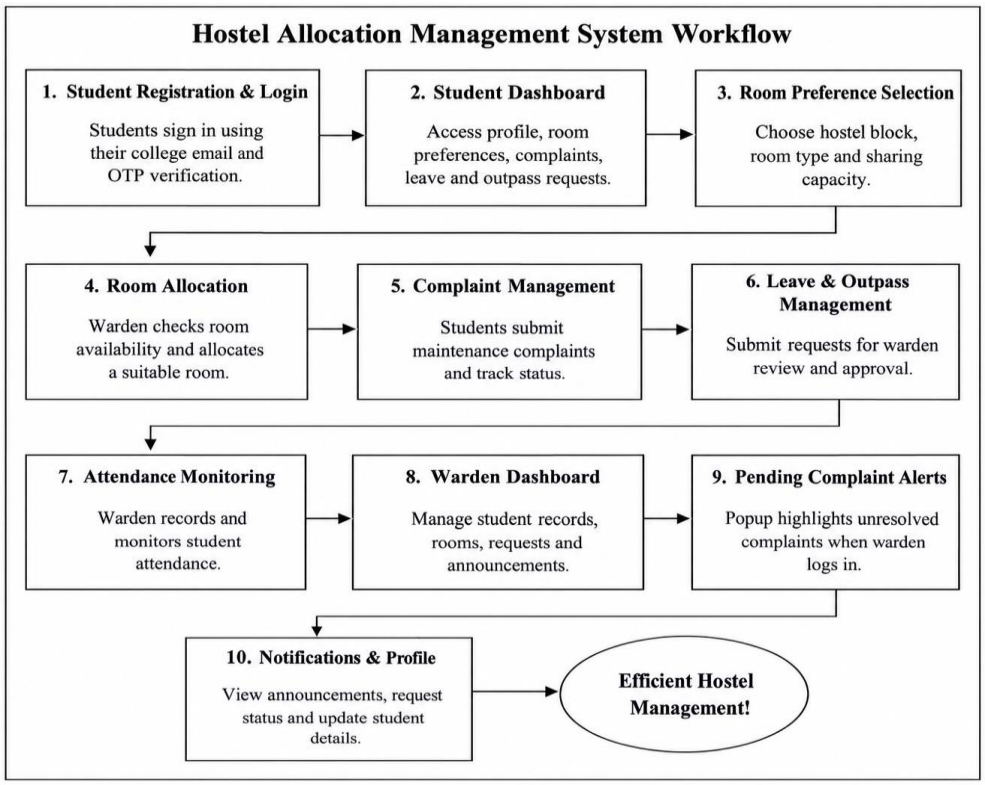
CONTENT

Hostel Allocation Management System is an online system which helps in managing the hostel operations and room allocation process in a simpler way. It has a distinct login facility for the students and wardens to help in better administration of the hostel activities. The students can use one-time password (OTP) generated from their college email id, provide their personal details and choose their preferred rooms according to hostel block, room type, sharing capacity and availability. The wardens can use this online system to manage the student records, hostel blocks, room records and hostel room occupancy. They can also use the system to receive the maintenance complaints, leave applications and outpass applications of the students. The wardens can monitor the attendance of the students, make announcements, approve/reject student's requests and update the status of complaints. A pop-up feature in the system helps the wardens to know about the complaints that are not solved till then and helps them in solving the maintenance problems.

The Hostel Allocation Management System can help increase the efficiency of room allocation as well as increase its accuracy by ensuring that the student data and room data are stored systematically. The warden is able to see the available rooms, room allocations, and room management based on preferences of students and requirements of hostels. Digital communication between students and wardens can also be done using announcement and request management. Complaints about the facilities in the hostel can also be submitted by students and updates about the status of the complaint can also be provided.

Moreover, the system enables an easy means of handling the leave and out pass of the students without having to depend entirely on manual methods. The wardens can view the applications and accept or decline according to the hostel policies. The complaints notification allows one to know the complaints that are pending at the time of logging in. With all the above features in place, the Hostel Allocation Management System makes hostel management a structured process.

WORKFLOW DIAGRAM



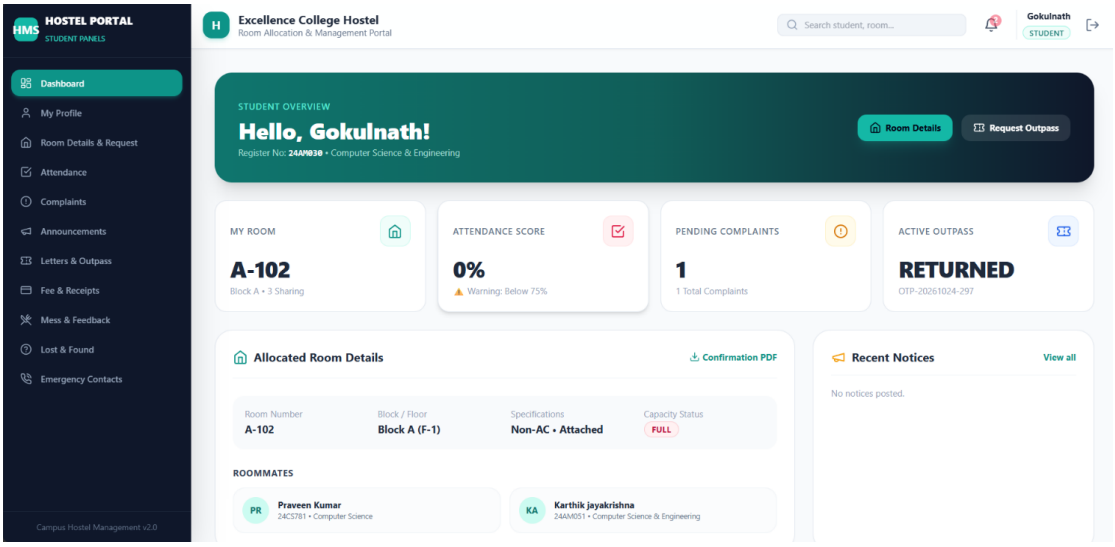


Fig. 1: Sample output

Research and Reviews:

Research and literature review was carried out on the present hostel management systems so as to learn about their functions and drawbacks. The traditional way of hostel management is done manually in terms of record keeping, room allotment, attendance, and complaints handling. These processes take more time and effort. The research gave us an idea of the need of having a central digitized hostel management system. The suggested hostel management system includes registration, room allotment, attendance, complaints, leave request, and announcements.

Results & Discussion

Hostel Allocation Management System gives an easy way for the management of the hostel. With this system, the management process becomes very effective. In this system, the process of registration, allocation, marking attendance, and record keeping of the students becomes easy. The students can submit their complaints, leave, and outpass request through this system.

The findings have shown that the system is useful in improving the communication between students and wardens. The wardens can coordinate the allocation of rooms, approve or disapprove the requests made and even handle the complaints. The complaint alert helps in displaying any pending complaint at the time of logging in as a warden. Announcements can easily be made to the students. This implies that the system is a better way of organizing and handling all matters concerning the hostel administration in an efficient way.

Discussion

This discussion illustrates how Hostel Allocation Management System makes the management of hostels much easier with digitalization of these activities. This system makes it very easy for the students to use the services of hostels and helps wardens to perform their day-to-day administrative tasks efficiently. The functions such as room allocation, attendance check, complaints, approval of leaves and outpasses, and making announcements become effective due to this system.

CONCLUSION

Hostel Allocation Management System is a useful and user-friendly way to manage hostel activities using digitalization. This system makes some of the activities very easy, such as student registration, accommodation assignment, attendance management, complaint management, leaves, and outpasses management. This system cuts down the work that needs to be done manually and reduces the time taken in making student records accurate.

The suggested system enhances interaction between students and wardens by making use of online requests, complaints, and announcements. This system makes hostel management less time-consuming and more reliable and efficient. This system also takes care of better organizing of data and quick access to information about the students. In addition, this system eliminates any chance of error that can occur manually. The system thus makes the hostel management transparent. In brief, the system offers an easy way of carrying out day-to-day hostel activities.

Future Scope

In the coming future, there are many features that can be added to Hostel Allocation Management System to enhance its efficiency, security, and performance. A separate mobile application can be created for providing students and wardens access to hostel facilities at any place and at any time. The

features like online payment of hostel fee, attendance using biometric system and notifications through SMS or e-mail can be incorporated to make the daily tasks easier. Room allocation using Artificial Intelligence is another feature that can be implemented in order to allocate room according to the preferences of the student, availability of the room and sharing capacity. Advanced report generation can assist wardens in managing the student's information, attendance, status of complaints and availability of room more efficiently. The use of cloud storage system can be helpful for ensuring the security of the data as well as its easy backup and accessibility.

REFERENCES

1. **Design and Implementation of Hostel Allocation and Information Management System** — Akpojotor Omoghene Mitchell (2023). Gives the idea of how computers can help with room allocation and record keeping in hostels.
2. **Design and Development of Online Hostel Management System** — Pei Ling Wong & Hairulnizam Mahdin (2022). Online application for hostels, room allotment, student information, notices, and complaints management
3. **Dormitory Management System** — IEEE (2023). Analyzes the development of a web-based system for automating university hostel accommodation allocation and student activity management
4. **Design and Implementation of Hostel Allocation System** — Samruddhi G. Bendre et al. (2024). Presents an algorithm for automatic room allocation taking into account students' preferences and hostel policies
5. **SVERI Hostel Management System** — Harshada Bhandare et al. (2024). Describes student records management, allocation of rooms, fees management, and security authentication
6. **Hostel Management System with Room Allocation** — Gandikota Bala Ayyappa et al. (2025). Highlights student registration, login authentication, accommodation, fee management, and administrator dashboards.
7. **MySQL Reference Manual** — Oracle Corporation (2026). Offers information on how to create databases, SQL queries, storing data, database linking, and database security..
8. **PHP Documentation** — The PHP Group (2026). Provides information on how to program dynamic web applications and their server-side capabilities..
9. **Accommodation Allocation Policy and Process** — University of Surrey (2026). Explains student accommodation eligibility, application procedures, room preferences, and allocation policies.
10. **StaySmart: A Web-Based Hostel Management System for Student Accommodation** — Ahmad Syahrin Yusof et al. (2026). Examines automated hostel applications, room allocations, students' dashboard, complaints handling, and administration functionalities..