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COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

45
years

MINI PROJECT-1

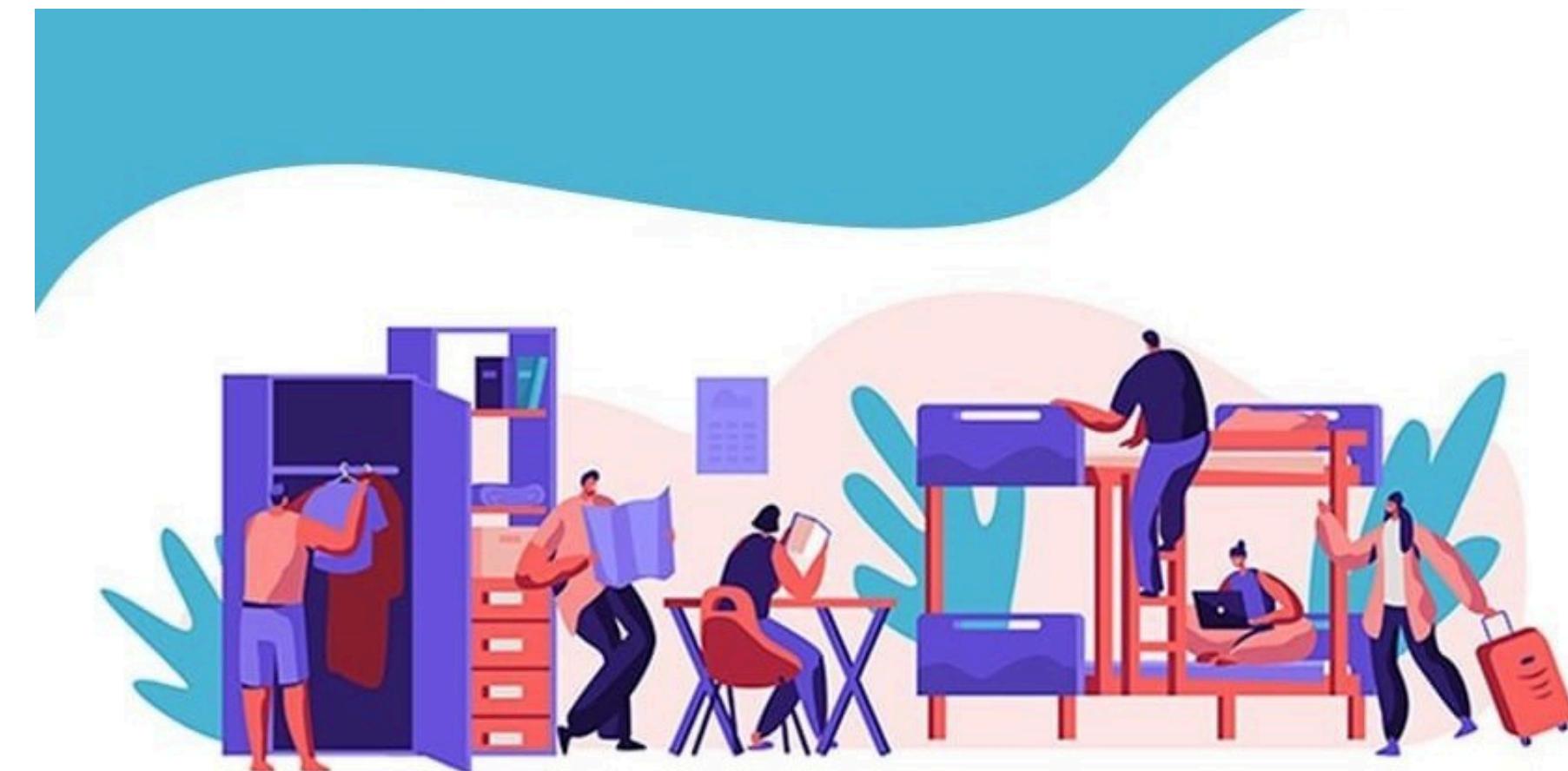
HOSTEL MANAGEMENT SYSTEM

PROJECT GUIDE

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INTRODUCTION

A Hostel Management System (HMS) is a software application designed to help manage the daily operations of a hostel, including room allocation, student management and food services



ABSTRACT

As the name specifies “HOSTEL MANAGEMENT SYSTEM” is software developed for managing various activities in the hostel. For the number of educational institutions are increasing rapidly .There by the number of hostels are also increasing for the accommodation of the students in this institution. And hence is a lot of strain on the person who are running the hostel and software's are not usually in this context. This project allows for the management of room types, availability, and booking status, as well as meal scheduling and food orders.

PROBLEM STATEMENT

LoHostel operations lack an efficient system for managing room bookings, food orders, and student-admin interactions. This causes delays, errors, and a poor user experience. A streamlined Hostel Management System is needed to automate room allocation, meal ordering, and communication, ensuring real-time updates, accuracy, and improved service.



LITERATURE SURVEY TABLE

Author(s)	Title	Year	Features	Technologies Used	Findings/Conclusion
A. Smith, J. Doe	Automated Hostel Management System	2019	Room booking, food orders, user profile management	PHP, MySQL	Improved efficiency in room allocation and meal management reduced workload on admins.
R. Kumar, S. Singh	Smart Hostel System Using IoT	2020	IoT-based notifications, real-time tracking, room status	IoT, Arduino, NodeMCU	IoT integration enhanced communication, providing real-time room updates and alerts for students.
P. Choudhury, K. Mehta	Hostel Automation with Data Analytics	2022	Data analysis of room occupancy, food demand forecasting	Python, SQL, Machine Learning	Data analytics provided insights for optimizing room usage and meal planning, reducing wastage.
L. Wang, Y. Liu	Web-Based Hostel and Student Management	2018	User profiles, payment gateway, messaging system	HTML, CSS, JavaScript, MongoDB	A web-based system centralized hostel operations, improving efficiency in communication and payment handling.

LIMITATIONS OF EXISTING SYSTEMS



- Manual hostel administration
- Wastage of resources
- Increase in staff workload
- Difficulty in retrieving hostel record assets & inventory
- Tedious and time consuming work
- Inaccuracy of data
- Data Duplication errors

PROPOSED SYSTEM

Hostel facilities which are managed manually can use this application for the data management of hostel students. Not only admin but also user can use the application for the booking of hostel room and can also see the facilities provided by the hostel. And users can also order their food for snacks



ADVANTAGES OF PROPOSED SYSTEM

- Easy data updating
- User friendly
- Less human error
- Rapid Data storing
- Process data and gives result in very less time compared to existing system.
- Easy record keeping
- Less Food wastage



TECHNICAL STACK AND TOOLS USED



FRONTEND

- CSS
- BOOTSTRAP
- REACT JS

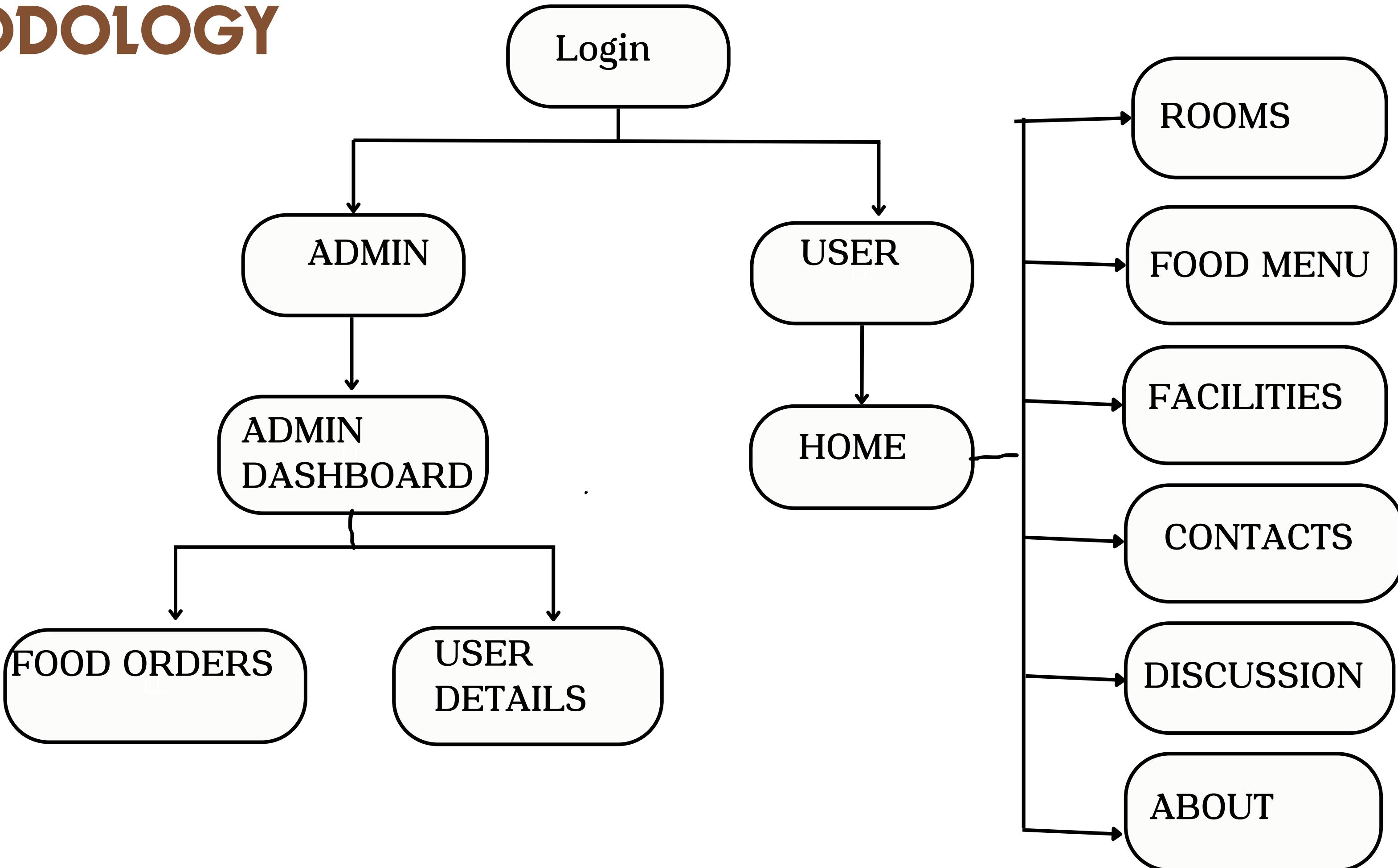
BACKEND

- NODE JS
- EXPRESS JS

DATABASE

- MONGODB
- ATLAS

METHODOLOGY



CONCLUSION



In conclusion, a Hostel Management System (HMS) significantly enhances the efficiency, accuracy, and user experience of hostel operations. By automating critical functions such as room booking, food ordering, and communication, the HMS reduces manual workload, minimizes errors, and ensures real-time data access.

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THANK YOU!