

APARTMENT MANAGEMENT SYSTEM

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ABSTRACT:

The Apartment Management System is a web-based application designed to streamline and automate the daily administrative and maintenance tasks associated with managing residential apartment complexes. This system provides a centralized platform for residents, administrators, and maintenance staff to interact and manage various apartment-related activities efficiently.

- 1 . Resident Management
- 2 . Payment Tracking (Corpus, Maintenance, Others)
- 3 . Complaint Handling System
- 4 . Notice and Announcement Board
- 5 . Expense and Budget Management
- 6 . Executive Committee Details
- 7 . Contact Directory

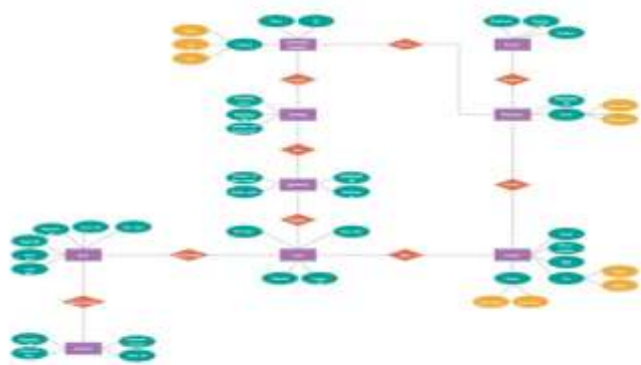
I. INTRODUCTION

An **Apartment Management System** is a comprehensive software solution designed to simplify and automate the day-to-day operations of residential apartment complexes. As apartment communities grow in size, managing them using traditional, manual methods becomes increasingly difficult, leading to inefficiencies, miscommunication, and errors.

This system aims to streamline key functions such as **maintenance tracking, payment management (corpus, maintenance, and others), complaint handling, resident communication, and record maintenance** through a centralized digital platform. By integrating modern web technologies, the system offers real-time access to data, improves transparency, and enhances interaction between residents and the managing committee.

- The objective is to build a **secure, user-friendly, and efficient platform** that meets the needs of both administrators and residents, ultimately contributing to a more organized and well-functioning Residential

II. PROPOSED MODEL

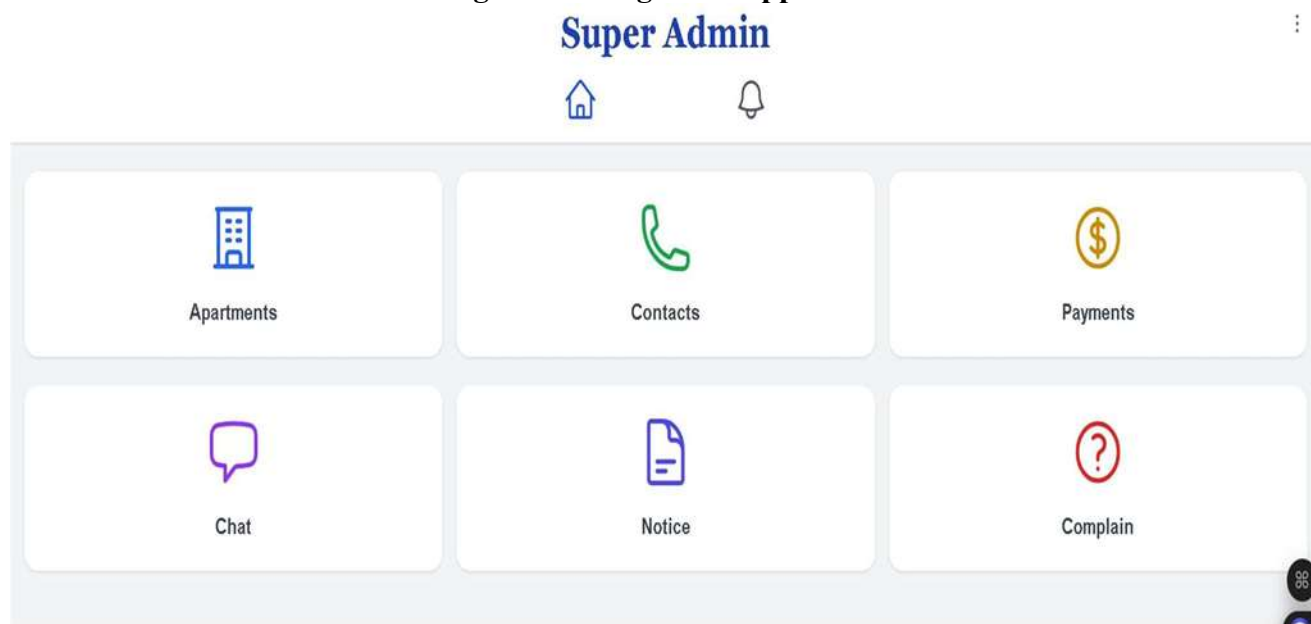


III. METHODOLOGY

Requirement Analysis: The development of the Apartment Management System followed a structured and systematic approach. It began with requirement analysis, gathering inputs from residents and administrators to identify key features. This was followed by detailed project planning, defining the scope, timeline, and module breakdown.

Design Planning: A structured project plan was formed, outlining tasks, timelines, and technology stacks. Using Agile methodology, development was done in phases. The backend was built using Node.js and MySQL, while the frontend used React and Tailwind CSS. Continuous testing and user feedback ensured a functional, responsive, and user-friendly system.

Figure 2: Design and Approach



IV. RESULTS

The **Apartment Management System** was successfully developed using:

- Frontend:** React.js
- Backend:** Node.js with Express.js
- Database:** MySQL (using XAMPP for local hosting)



V. CONCLUSION

The Apartment Management System successfully delivers an integrated solution to streamline residential complex operations. By automating key tasks such as payment tracking, maintenance management, and communication, it reduces manual effort and errors. The role-based access and real-time updates enhance user experience for administrators, owners, and residents alike. Despite minor implementation challenges, the system proves scalable, efficient, and reliable. Overall, it fosters better transparency, faster issue resolution, and improved community management, making it a valuable tool for modern apartment living and administration.

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