

Due Notes

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Abstract—This paper is focused on developing an Online Internet College Management System (CMS) which is very essential to either an educational institution or a college. This research paper introduces a mobile application designed to streamline academic processes, comprising two distinct sections: the Academic Section and the No Dues Section. Accessible to both professors and students, the Academic Section encompasses comprehensive subject-related notes and resources, facilitating seamless academic engagement. The No Dues Section enables final-year students to request no dues clearance, following a hierarchical approval process. Requests traverse through various departmental checkpoints, including class teachers, Head of Department (HOD), account sections, librarians, and Training and Placement Office (TPO) personnel. Each department validates specific criteria within its control, such as attendance records and academic standing, ensuring a meticulous clearance process. Should any dues be identified at any level, the process halts, prompting the student to rectify the outstanding obligations before resubmitting the request. Upon successful completion of all stages, the no dues form advances to the principal's office for final approval. The application modernizes and expedites the traditional offline clearance process, offering a user-friendly, efficient, and transparent platform for managing academic clearances.

Index Terms— Android, Educational System, Attendance, Report generation, Dues

I. INTRODUCTION

With the advancement in technology and life style there is need for faster and easy solution. Now a days we can see that automated systems demand is increasing drastically and educational system is also shifting towards automation. The contemporary educational landscape, the efficient management of dues clearance are very essential aspect of any institution. The process of verifying and clearing dues, is often referred to as "no dues checking," is integral to ensuring that students meet all their obligations before graduating or leaving the institution. However,

traditional methods of manual clearance processes were time-consuming and cumbersome work. Mobile learning is the next generation of e-learning that serve attractive way of knowledge distribution especially used in teaching and learning process. For this purpose, we design and implement Android Application for "no dues checking" Tracking. In this application, student raise the request for no dues form from their portal and every faculty of particular department get notified about the request and they approve the request by checking his dues clearance status his/her request is sent finally to the principal and after checking all clearance the form will get approved by institution and the student can acquire copy of his clearance form.

II. PROPOSED SYSTEM

The proposed system aims to revolutionize the process of dues clearance for students and professors, leveraging digital technology to streamline and expedite administrative tasks. Through an Android application developed on the Flutter platform, students can now raise requests for dues clearance without the need to physically visit the college, marking a significant departure from traditional manual methods. Upon request submission, professors are promptly notified through the application, allowing them to efficiently assess the dues status of students and provide electronic no dues forms as necessary. This seamless integration of notifications and approvals eliminates the cumbersome paperwork and time-consuming procedures associated with the conventional process. Moreover, the application categorizes users into distinct roles—students and faculties—ensuring that each user has tailored access to relevant features, thereby enhancing usability and security. Overall, this innovative system represents a paradigm shift towards a more convenient and

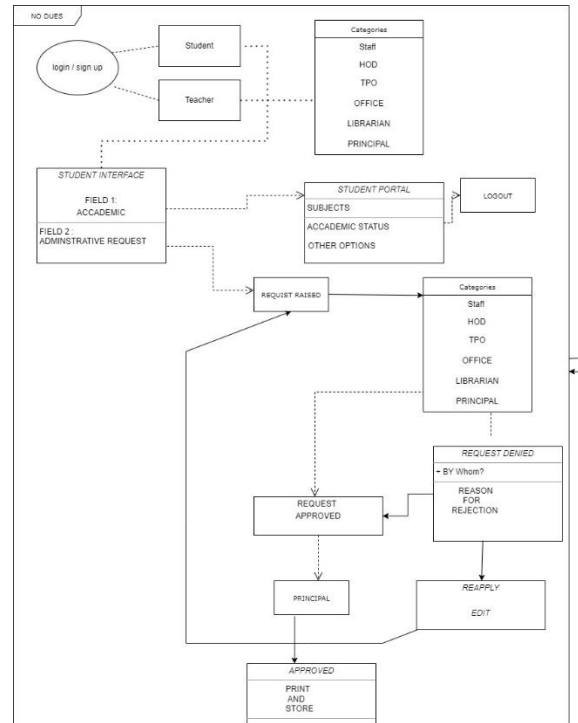
efficient means of obtaining no dues forms, benefitting both students and professors alike.

PROBLEM STATEMENT

The current operational framework exhibits several shortcomings that hinder growth and operational efficiency within the existing system. Within this framework, both college staff and students adhere to traditional methods for completing tasks. Notably, students are required to physically visit the college premises to fill out no dues forms and subsequently visit multiple departments to verify their dues. Similarly, professors are tasked with manually reviewing and approving these dues, necessitating their presence on campus during this process. Such conventional practices not only consume considerable time and energy but also demand a significant allocation of manpower. Moreover, the reliance on paper-based documentation exacerbates these inefficiencies, rendering the system cumbersome and prone to errors. Additionally, the system's inability to promptly address urgent needs, such as the expedited issuance of no dues forms during emergencies, underscores its inadequacy. In this digital age, it is imperative to leverage digital technologies to optimize operational processes and achieve efficient outcomes within a reasonable timeframe.

III. SYSTEM ARCHITECTURE

The proposed system architecture for the no dues app comprises several key components. At its core is the User Interface Layer, offering an intuitive interface for students to request no dues clearance and for professors to verify dues statuses. The Application Layer manages user interactions, processes requests, and communicates with the database and external systems. The Database Layer stores student profiles, clearance requests, and dues statuses, ensuring efficient data management. Role-based access control mechanisms are implemented in the Security Layer to safeguard data privacy. Additionally, a Notification Service provides real-time updates to users regarding clearance progress. These components work together to create a scalable, secure, and efficient system for streamlining the no dues clearance process.



IV. SOFTWARE REQUIREMENT

- Operating System: Windows 10 or later, macOS Catalina or later, or Linux distribution
- Database Management System: Sqflite, SQLite, Firebase storage.
- Programming Language: Dart
- Backend : Firebase (Backend as a Service)
- Development Framework: Flutter
- Integrated Development Environment (IDE): Visual Studio Code, or Android Studio

V. HARDWARE REQUIREMENT

- Processor: Intel Core i5 or AMD Ryzen 5 or equivalent
- RAM: 8GB or higher
- Storage: At least 50GB available disk space
- Display: Monitor with 1280x800 resolution or higher
- Network: Ethernet or Wi-Fi connectivity
- Optional: Graphics card
- Optional: Additional RAM and storage for heavy workloads.

CONCLUSION

The proposed system for no dues checking provides a new way of obtaining no dues forms and conducting operations with an attractive and user-friendly interface. This application speeds up the process and simplifies it. Students can initiate requests and track the progress of their clearance from the user-friendly interface, while professors receive notifications of requests and verify the status of dues for specific departments. Furthermore, a role-based access control mechanism ensures data security and privacy, protecting against unauthorized access. Through automation, the system reduces manual work and decreases the chances of errors associated with manual methods. Real-time notifications and updates keep users informed, thereby expediting students progression towards graduation.

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