

SMART VIEW SYSTEM

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Abstract

The SMART VIEW SYSTEM is an android application-based application designed to manage colleges administrative, academic, and student records. The application provides a simple interface for the maintenance of student information, staff information, and college-related information as it can be easily handled in android or mobile phones where they have been a part of day-to-day life. It can be used by colleges to maintain records of all students and different staff members in different departments at their respective colleges. The system includes modules like Admin, student, faculty, and others, including employee, parent, and alumni modules. Administrative module (Admin), student module (student), faculty module (Faculty), etc. Student module has functions where students can view their attendance, results, etc. The faculty module has functions like posting attendance, sending notifications, etc. Moreover, the main advantage of this app is we have an alumni module where senior students can have an interaction by this application, and the coming to-parents module has complete access to their child's details such as batch details and progress details, academic notifications related to them updated by the college administration.

Keyword— Notifications, attendance, admin.

INTRODUCTION

The Smart college management system is developed by using Android. The main aim of this project is to develop an android application which covers all the details of college like student profile, teacher profile, student progress, academic events, student attendance. All the data related to college, staff and students is securely stored on a firebase database which is managed by the college administrator. The system utilizes the authentication, each sub activity has authentication allowing the authorized users to login in the system to create or update information in the activity. The staff can submit requests for the leave thus reducing the processing time. The application reduced the time needed to access and deliver the student records to users. The Smart College Management System project is implemented in React Native platform. College Management system is an integrated android application that handles various academic or nonacademic activities of college. The system can access by every students/faculties/employee of the college through internet with help of android mobiles with their email id's.

MOTIVATION

In our college from the past few years, we are using a LMS (Learning Management System) software named ECAP, moodle. The main objective of this LMS software is to provide access to parents, students, and employee but coming to our developing system we developed the system that is accessible to every student, faculty, admin, employee, alumni, parents. Coming to the proposed system the employee efficiency of work is being improved due to the modern technology. The user satisfaction would be higher when compared to existing system. Due to the modern technology the faculty can easily track the students' problems, students' attendance, students marksheets, etc. In the existing system the faculty

is maintaining the student’s information in the formof manual records so the information searching is difficult but the proposed system contains the information in database where the users or stakeholders can retrieve the data whenever they want.

DESCRIPTION AND METHODOLOGYSYSTEM REQUIREMENTS

Software Requirements

ANDROID STUDIO -SDK FLUTTER - FRAMEWORK DJANGO -BACKEND VSCODE EDITOR
 BACKEND-PYTHON

MOBILE APP - DART LANGUAGE DATABASE-SQLITE

DESIGN-BOOTSTRAP

Hardware Requirements PROCESSOR- INTEL I5 OR HIGHERRAM – 8GB OR ABOVE
 SSD – 128GB OR ABOVE

3.5 Flow Chart:

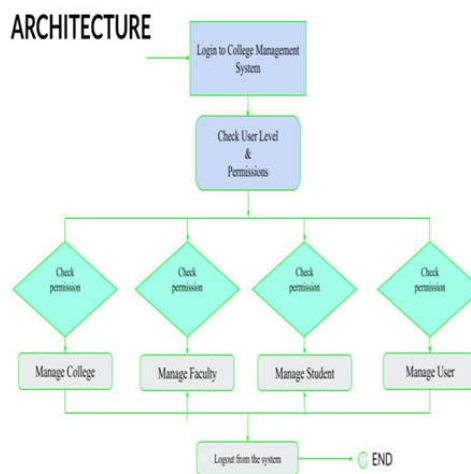


Fig 1: Flowchart of working model

EXISTING SYSTEM

The system which is used nowadays has some drawbacks which need to be improved for better performance. The system through which the feedback is taken is not good enough. The views of each and every student are not expressed through these systems. As the technology is developed day by day, we need to use this technology so we can get an efficient result in adequate time. For attendance management in the present system all work is done on paper. The whole session attendance is stored in a register and at the end of the session the reports are generated. We are not interested in generating reports in the middle of the session or as per the requirement because it takes more time in calculation. At the end of the session the students who don’t have 75% attendance get a notice. This is a very time-consuming process. In the present system the result is viewed on the notice board. It requires a lot of paperwork and is time consuming. Moreover, there is no system still present through which students can take advice from senior students. Colleges cannot even provide urgent notifications to students in case of emergency.

Need of Work: The College Management System is the version of manual System.

The Manual College Management System consist of Consist Following Drawbacks:

Lack of Security

The manual system consists a lots paper document. The paper document is less secure than advance electronic system. In case of loss of paper document there is some less chance of recovery.

Time Consuming:

In the manual college management system handling of the paper document and storing is not easy. Manually managing is very time consuming. Finding the paper documents in manual system takes up long time. It is very time consuming and difficult to handle.

Insufficient Space:

In case of increasing the number of documents in manual system it requires lots of space to store the documents. Upgradation of the storage in manual system is not easy.

Increasing Cost:

One of the biggest problems in manual college management system is management of paper document is associate with cost. Storage of paper documents, recoding leads with increasing cost.

Updating Data:

Updating manual paper documents requires lots of time and difficult to maintain. If you want to make any change you will have to make a copy, so you do not destroy the original with any edits or comments you might add. To overcome these problems, we designed our college management system in android.

PROPOSED SYSTEM

The system architecture has a smart phone with android OS, a web services, a database server and the user as its components. The android smart device must use network for internet connectivity to ensure better performance. The user will login to the application through an android smart phone. The user-type is verified with the database server and access is given to the appropriate user. The web application also can be used to login and perform certain operations such as ensures that internet is on.

4.1.2 Modules in Application**Admin Module**

This is the main module in our college management system. It plays very important role in the college management system. This module contains the main registration part of the employee in the college system. This is main task in our system because it is necessary to maintain the security. Admin create the accounts of employee using their email address and password. This account created are stored according to their department and designation. Admin have the highest priority in our college management system. Admin have the all access of the database. They have permission like view the information, edit the information, delete the information etc.

Student Module

The student module enables you to store all personal, academic, professional and history data regarding a student, his/her parents. In manual college management system, they are facing the problem related maintaining the record of student. Sending assignment and notification to the student and so on. So in this student module they have the facility like registration there account in our college management system with their data. This data of register student are store according with their department. When the student complete their registration they have facility to login there account with register email address and password. If student doesn't have their password our system have the facility to forgot there password with register email. After the login account student have many options related to section like assignment section, notification section, office section, library section and profile section. The main part in the student section is the complete the profile section is first it is necessary part. When the student done the complete profile part the our college management system create the student account in the various section like in office section, library section, bus section if student have the bus facility and hostel section it is also depend on the student. This all data of the student are maintain using there department, year and current year. Student module has the facility to update the information.

Employee Module

The registration part of employee in college management system done by the admin. This module only contain the login part with their emailid and password that are provided by admin. The system has facility to forgot their password. This module is further divided into submodule with their designation of employee in college. The submodule are as follows:

- a) Teacher Module
- b) HOD Module
- c) Staff Module

Teacher Module

After the login they have different sections like profile section, assignment section, notification section, leave section and attendance section. Teacher can upload the assignments or delete the assignments. Also, they take the attendance of student of class. They give the notification to the student related to department or college. Whenever they need a leave, they give the leave application to head of department.

HOD Module

After the login the head of department contains the same options like teacher module along with that, they contains extra options because they play both role as a teacher and as a HOD. The extra options are like manage the record of department, manage the timetable of classes, accept the leave application from teachers and send to the principle for approving.

Staff Module

The staff module contains the different staff of college like office staff, library staff, bus department staff etc. They have their task according to their position

RESULT

Fig2: Smart View System Login Page

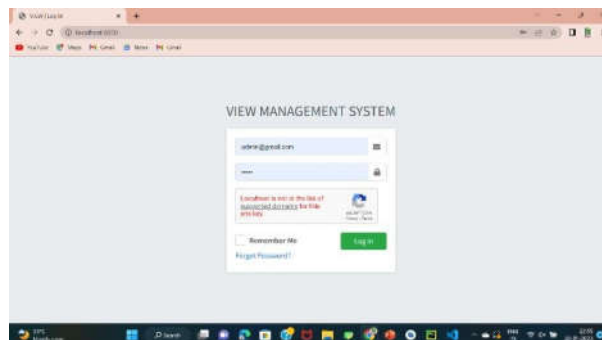


Fig 3: Administrative Dashboard

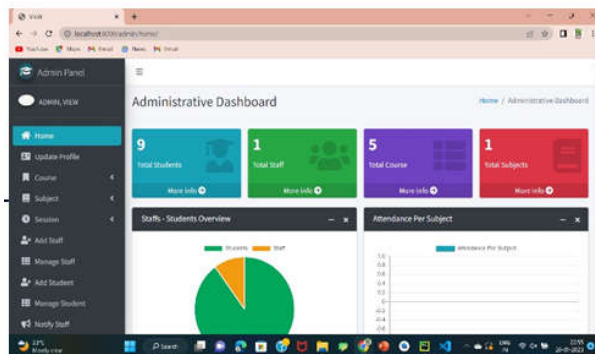


Fig 4: Student Module Homepage

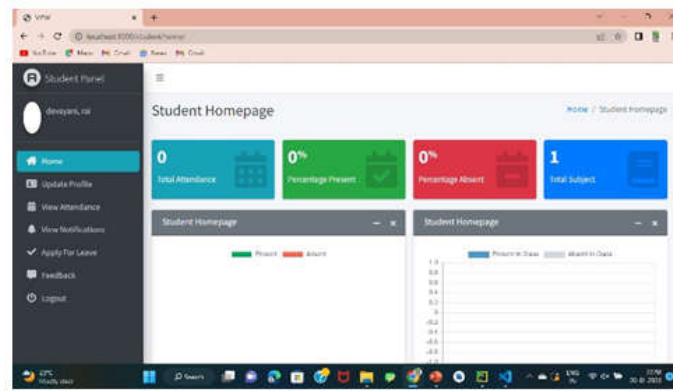


Fig 5: Leave Application form in studentModule dashboard

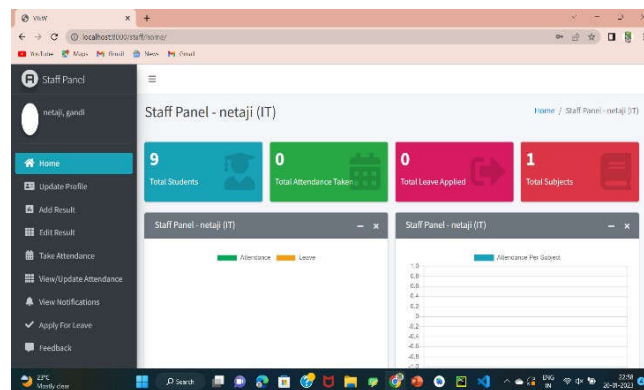
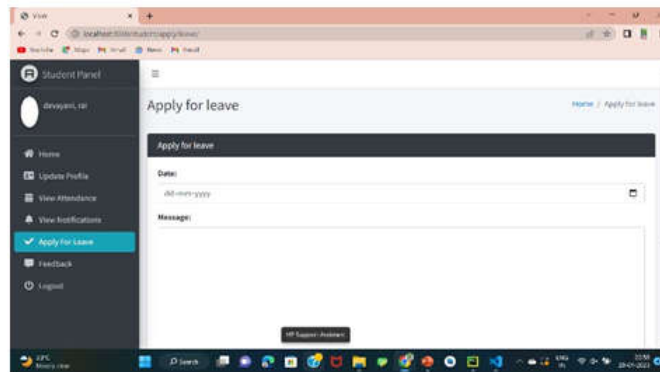


Fig 6: Staff Module Dashboard

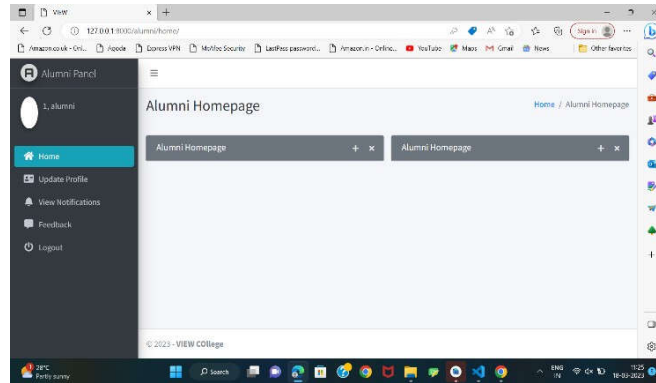
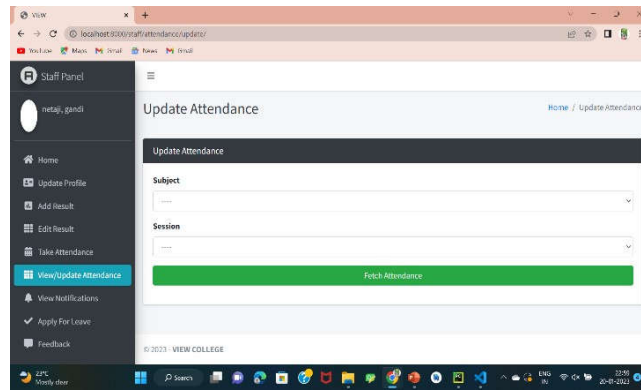


Fig 7: Updation of Attendance in StaffModule Page

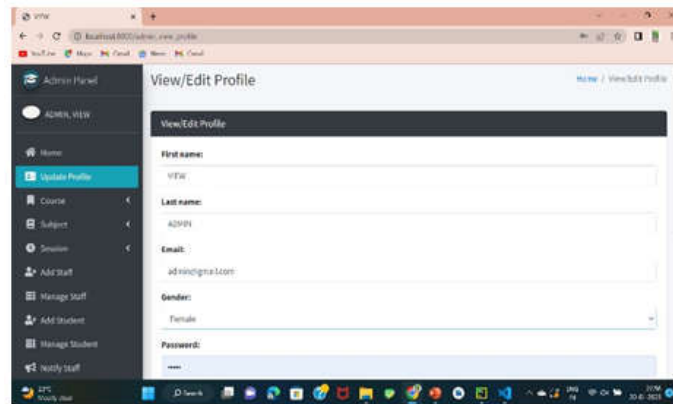


Fig 8: Admin Module Dashboard

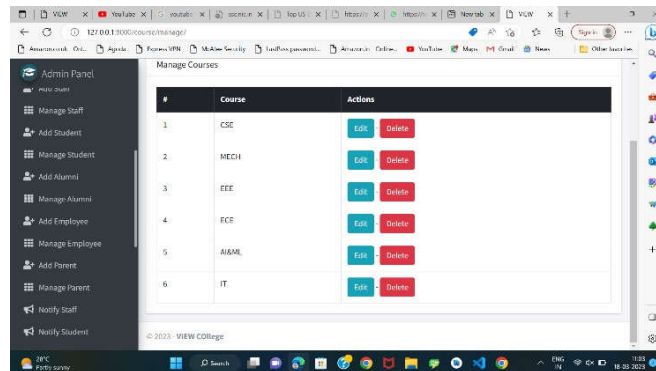


Fig 9: Admin Module course management page

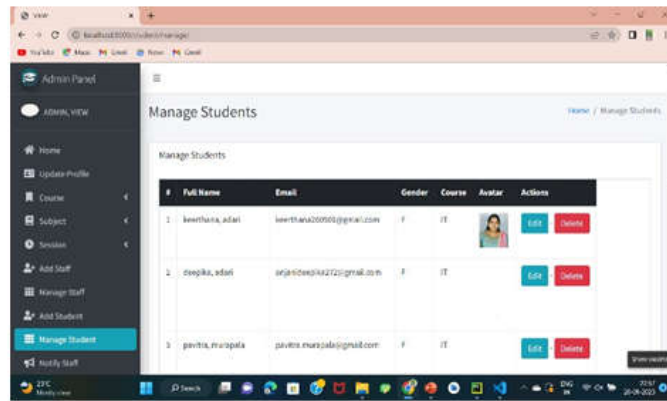


Fig 10: Admin Module Student Information Management page
Fig 10: Alumni Module Dashboard

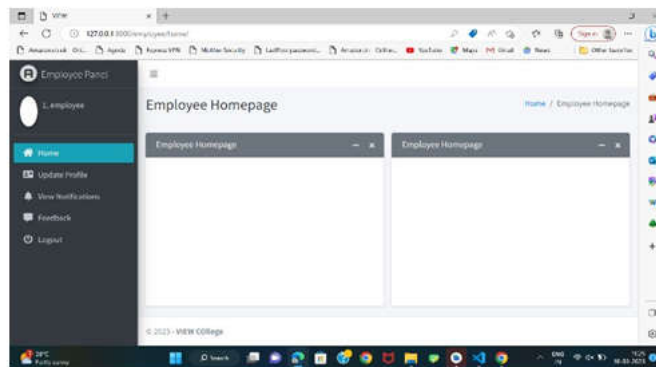


Fig 11: Employee Panel Homepage

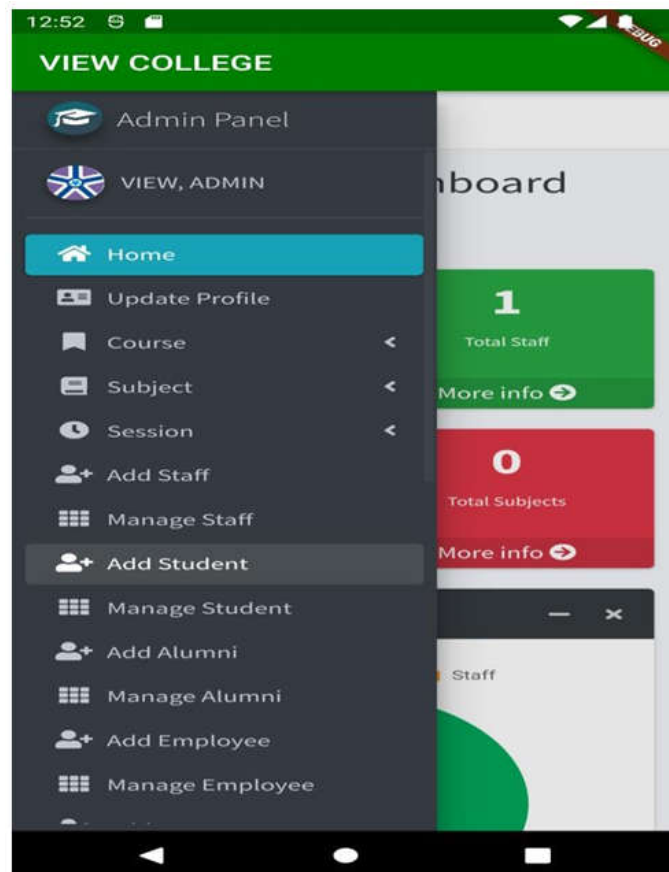


Fig 12: View College App Representation

CONCLUSION

The project as Smart College Management System is the system that deals with the issue related manual college management system. This project is successfully implemented with all the features required for college. The application provides appropriate information to user according to the chosen activity. The project is designed keeping in view the day-to-day problem faced by a manual college management system. Deployment of our College Management System help the college to reduce unnecessary wastage of time in doing work using manual college management system. The system is user-friendly, highly interactive and flexible for further enhancement. The system generates the reports as when required. The coding is done in a simplified and understandable manner.

Furthermore, it provides user a help option which helps them in discovering any information regarding labs, seminars, faculty, room numbers, fee structures of all branches. This app also creates a platform where user can view daily updates of their attendance, syllabus, time table, and exam notifications. This app has secure login features, it also provides basic features like changing password, retrieving the forgotten password.

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