College Connect

An app for all college related activities, and a lot more

Prelims Project Documentation

Capn' Underpants

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Github | Project Documentation

Note:
Our project centers around PEC students, faculty and staff, but by extension, can be adapted to suit other institutions as well.

Problems / Issues addressed

College Connect is designed to make everything pertaining to an institution easy to manage and follow.

For example, a student has to manage various aspects of the academics, the hostel, the library, the administrative work, etc. Despite being part of one unified system (PEC), these systems have little to no correlation with each other on the student's end, and he/she has to go to different places (on machine, paper, or physically) to get things done.

As students, we have to deal with so many subsystems like library deadlines, clubs, notices, academic announcements, etc. that the lack of a single place where everything is accessible is quite troublesome at times.

It is clear that segregation is better than mixing everything together. The logic, storing, filtering, and functioning of data is many times cleaner, smoother and faster. It is also very convenient when the working of one does not overlap the other.

But this way of handling these systems does not make it easier for the end user. Rather, to maintain the 'cleanliness' at one end, one must compromise heavily on the user experience.

Existing Solutions

The existing solutions are few and far between. There are a variety of apps that cover aspects of the problems previously mentioned. Moodle and Google Classroom target classroom functionality like handling assignments and exams, 3rd party applications to help in administration and data maintenance exist, WhatsApp and Slack are effective platforms for mass and 1-on-1 communication, and so on.

All this is to say, even after having machine level support for such work, the physical distance between two important buildings is still a factor not considered.
The problems that are still not addressed, however, are that each aspect of one's work is still divided into multiple chunks, online or offline.

College Connect

Project Description

The project is a web and phone based application system which hopes to incorporate all those systems which anyone inside a college institution could require (discussed above)

There is one main database which holds information like basic information of students, their marks in projects/assignments, test scores, and then move on to things like due library books, notices by the administration (like late fee notices), the attendance of students. We also maintain information about the various clubs/societies. A list of all the databases has been provided below.

Many activities like submitting the fee, travel receipts, reminders for returning library books, getting important notices from the college, checking your attendance, checking a student's scores (as a professor), looking up when and where events are held, etc. can be done using our application. Sending messages in a Slack like environment, getting permissions for events/activities, having your course in a Moodle like environment where you can submit and get grades on assignments, etc. are some of the very extensive capabilities of this platform.

The highlight of the project is not the fact that it does these things. The idea that differentiates this in a crowd is the fact that it lets you do all this, in one place. You do not have to go to different places, or even a different app, to manage all your workflow. Everything can be done in one all-inclusive place. This saves a lot of time, and energy for the user, so that he/she may focus on other tasks, and also does not mess up things for those managing everything at the back-end.

Functions / Future Scope

Student -

→ check timetables

→ check attendance

→ check scores

→ check dues for library (books/money)

→ check notices

→ submit forms and receipts

→ submit assignments

→ chat with others

→ access course content

→ access the calendar

Faculty -

→check timetables

→ maintain scores of students

→ add/grade assignments

→ converse with students/Crs and Grs

→ do limited administrative work like prepare score cards

→ send notices

Library -

→send notices

→ send reminders

→ request payment

Administration -

→ converse with student heads

→ maintain, request, edit all information across all tables

→ prepare timetables

→ assign classes/courses
→ send notices and announcements

Other -

→ do various activities which have been programmed into the system
→ sending reminders of attendances, request payments, request/send forms, etc

Milestones / Plan of Action

We plan to develop our application in two phases.

The first phase is building it on a web based platform, while keeping the mobile based part in mind. We have **Django/Flask** as the back end application which will help us store and manage our databases, on both platforms. This also allows for an easy administration page that makes building the site much easier.

For the front end, we have used **REACT** as a tool. This was done keeping in mind the ultimate state of the application, which is a mobile platform. React would allow us to easily translate these web pages onto the smaller screen without hassle.

As of now, due to the very short time allotted for this project, we have built upon only a few features, in extension to the work previously done.

We plan to continue this project even after the Hackathon deadlines, because we believe an application like this could really be helpful in everyday life.