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ABSTRACT

Every institute needs a place where everyone of their institute can communicate with each other so that while sharing some important information/data no one should be left behind. Thus, Making a web application and stand-alone application which can be used by every member of that education institute to get updated about institute activity and can share his/her opinion if required. Thus, binding everyone under one platform gives institute more boost and coordination among its members. Our Automation is accomplished through the medium of a Website and smart phone application. The front end of this system is built with Bootstrap. Bootstrap is the most popular HTML, CSS and JS framework which scales the website and application with a single code base, from phones to tablets to desktops with CSS media queries. The back end of this system is built with firebase. Fast, flexible and pragmatic, JAVA SCRIPT is a server scripting language that empowers some of the most popular websites. FIREBASE is the most popular database system used with JavaScript for storing information categorically. The whole project is also featured with the firebase services such as authentication, database, storage, hosting, messaging, etc.

Keywords: Timetable Generation, Attendance Record, Academic Record, Finance Details, Passing of Circulars.

1. INTRODUCTION

In 2020 the world faced an unexpected global pandemic and as a safety measure lockdown were implemented which restricted the physical contact. Day to day task which were extremely easy, required negligible effort became extremely difficult through online method. One such affected tasks were educational institution tasks this affected the students, administration and faculty. For carrying out all the tasks of a single educational institution lots of different apps were used and each of these apps had some defects which held back the institution in terms of speed, effort and efficiency. As educational institutions are the backbone of development for the future of a nation the optimality

of these institutions has a direct effect on the same. By providing a single point, easy solution to all the tasks increases the optimality and quality of education even in online medium.

2. LITERATURE SURVEY

1] Google Classroom

Google Classroom is similar to a learning management system (LMS) (Website, an Android app, and an iOS app).

Pros: Easy-to-learn interface; integrates with lots of apps and websites; seamlessly share, collect, and grade G Suite documents.

Cons: Integration with student information services is still in development; no standards-based grading options.

Bottom Line: Google Classroom is a great way to manage and organize learning, though teachers who need more features may need to look elsewhere.

[2] Edmodo

Edmodo is a free Facebook-like learning management system (LMS) that teachers can use to manage online instruction

Pros: Small learning curve for anyone who uses popular social media, as well as a robust community and support.

Cons: The user interface is very busy for teachers, especially with ads, and it could use a rubric tool and better collaboration options.

Bottom Line: This free platform allows for teacher-monitored classroom communication with basic tools.

[3] Evernote

Evernote is a cloud-based platform for storing, saving, and sharing digital notes and files created across a wide range of devices and applications

Pros: Too many features to list make for a truly interactive and integrated notebook and productivity tool.

Cons: Premium plans can get pricey, and it lacks some accessibility features that would benefit students with special needs.

Bottom Line: It's a secure, easily accessible place for students and teachers to store and share their digital notes and files.

[4] DHI

It is both app (available for android and IOS) which has lots features and is combination both GClassroom and Edmodo.

Pros: helps in managing all the academic records at one place and even helps in grading.

Cons: as it is combination of GClassroom and edmodo, this application is not integrated well with all the features and hence its buggy which causes application drastically slow down

3. PROPOSED SYSTEM

We have created a web application as well as mobile application for education institute which can be implemented by any college or school. This application will server all the basic needs like: -

1. Library management: all schools and college have library by students are unaware which all books are present. In this fast-moving life students have very less time to go to library and see all the books and it not feasible also to know about all the books. Hence, this application will show which all books are present and can be borrowed and which all books are already borrowed.
2. At every beginning of session timetable has to created or for internal exams sitting arrangement for student has to planned which takes lot of precious time of teachers. This is quite tedious job but easy for automation.
3. Online classes will be new normal to students thus it is important to have communication between the students properly and they knowing each other is also important. Thus, implementing real time chat service and having post section for each class can help us to reduce the communication gap.
4. In online classes, there will be necessity when teachers have to give assignments to students to know about knowledge of students. Thus, there should be a way where teachers can send assignment also get to know who all student has submitted the assignment.
5. Other the teachers, principle and HOD's of department have to make announcements to students or to teachers. Thus, creating a global space in app where all the accounts can be shared easily with everyone.
6. Every institute keeps changing thus creating an application in such a way which can be easily customized like creating own separate groups, creating pools to vote, small quizzes, sending application for various things to principal/teachers/HOD's and many more things.
7. Last not the least is the team which can manage all the things which goes behind the scenes and put regulation or limitations on users. Thus, there will be admin panel through which everything can managed properly and make sure that no one is tries to misuse the application in any way possible.

4. METHODOLOGIES

Our application will couple of functions which will divided based on the user type, such as: -

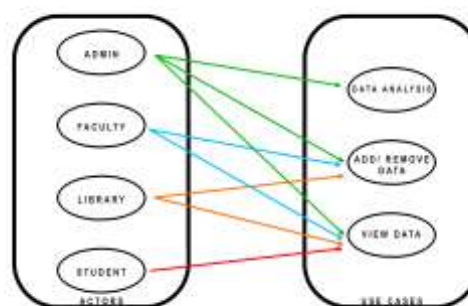
- 1) Main Admin
- 2) Users
 - a) Single Institute
 - i) Faculty
 - (1) Teaching Staff
 - (2) Non-Teaching Staff
 - ii) Student
 - (1) Class Representatives
 - (2) Other Students
 - b) Institute Admin

Some of the main functions to look out for: -

- 1) Library management
 - a) Record of all the books

- b) Borrowed books
- c) Number of students in library at any given time
- 2) Automation
 - a) Time table
 - b) Sitting placement for examination
 - c) Invigilation duties
- 3) Records
 - a) Internals Marks
 - b) External Marks
 - c) Submissions
 - d) Attendance
- 4) Accounts department
 - a) Fee paid or not
 - b) Other charges
- 5) Real time conversations both group and private
- 6) Creation of custom rooms/groups
- 7) Common room for everyone.
- 8) Live Video streaming

5. USE CASE DIAGRAM



6. RESULT AND DISCUSSION

We were able to complete 90% of the features of the features that we had initially decided to incorporate in our project. Some of the features that we weren't able to include in our project will be included in the future development of project. We aim on providing this project to as many institutes as possible starting with our college Sai Vidya Institute of Technology. We know that not all institutes will have same demands and requirements and we are sure that with few tweaks this requirements can be fulfilled and hence our aim providing one-stop to all institutional activities can be achieved.

7. CONCLUSION

Our Automation is accomplished through the medium of a website and smart phone application. The front end of this system is built with Bootstrap. Bootstrap is the most popular HTML, CSS and JS framework which scales the website and application with a single code base, from phones to tablets to desktops with CSS media queries. The back end of this system is built with firebase. Fast, flexible and pragmatic, JAVA SCRIPT is a server scripting language that empowers some of the most popular websites. FIREBASE is the most popular database system used with JavaScript for storing information categorically. The whole project is also featured with the firebase services such as authentication, database, storage, hosting, messaging, etc.

The main objective of our project is to decrease the tedious work of the faculty and administration by providing all possible automations. Our project will serve the user with a better and easy interface. Our project will also provide an easy intra institute communication.

8. ACKNOWLEDGEMENT

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