

Social Classroom Application

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Abstract: *The most crucial educational initiative in educational institutes is the move towards Online Learning that combines regular and distance education to reach its education services. A Social Classroom is a teaching and learning environment where interaction happens via the internet. It deals with the digital transformation in the educational sector in the form of virtual classrooms to have separate class groups, screen casting, and online streaming, that can help students and teachers work collectively. This application has an e-library where students/faculty can access reference books, manuals, or other resource material online through a link or QR code. A FAQ chatbot specialized in solving application-related questions; A Social media feed where students/faculty can interact, post their accomplishments or receive updates from the institute. It also integrates Attendance tracking, assignment submission, and class schedule. It provides the benefits of virtual classroom learning as well as engaging and strengthening social activities.*

Keywords: *Interactive virtual communication, cloud database, Web based app.*

1. INTRODUCTION

The importance of application development is evident today. With the changing times Education has been severely affected in the current Covid-19 era that have made social distancing as a new normal post COVID-19, everyone involved in education looking to get things done virtually and connecting with each other. We are introducing “Social Classroom” integrated application software which handles a variety of academic and non-academic activities of the College / Educational Institution which will connect students / skills / institution staff on computers connected to the Internet or the Internet enabled devices with the help of his username and password. Social Classroom Application discusses subject-related reports, college details, course details, additional curriculum activities, collection details and other resources-related information.

Unusual working hours of user service, coming due to time difference, are undoubtedly one of the reasons for the user they don't use application and leave. When user can't get information about the details about these events, they decided to leave. Chatbots, as opposed to user service representatives, does not care about daytime or location time. Because they work 24/7 days and 365 days a year. The problem, however, can be easily solved with the FAQ chatbot - a type of bot that focuses on answering common related questions. So our project goal is to have access to professional help and thus can request any information from all locations and at any time. To have separate class group and to eliminate the use of WhatsApp, which can separate the personal life with the college life. Also to post the assignment and links to the classes with due date, tracking attendance, subject progress, curriculum details for the next semester, test details, project and any. This application has facility of getting the reference books, magazines or any other resource material online through the link or QR codes which may lead to the book visualization by which any user can access it whenever and where ever they need as eBooks are portable and simple, making them easy to manage. Instead of carrying many large books, one eBook reader can handle thousands of eBooks. Save a lot of space - in your home and in your wallet. One does not have to worry about storage limitations. That is why our app often focuses on new technologies and smart classes that can help students and teachers work together to improve the quality of education.

A section similar to the Instagram feed where everyone can connect and stay connected with alumni. User can submit their achievements, results of competitions or daily or recent news and updates about the college, the Department of the Department can invite events, event information that can help advertise to students who do not know what is happening in college. Vital can't stress enough how important it is to have a blog. It's a place where all your content can be live, readers get a chance to talk about their names and be published, great for reshaping their resume and gaining real-world writing experience and knowing how important it is to keep those books.

2. LITERATURE SURVEY

[1] Monica Vladioiu et al., presented how the Dept. of Computer Science and Information Technology of UPG University of Ploiest have started to use the Discord communication platform to be in touch in real-time with their teachers, students, and alumni as well. Their primary goal was to build a community for students, alumni, and faculty to interact easily. For more than a year, they have been using Discord enhanced by reprogramming it to their

needs. From communicating with the students, to keep going with both lectures and laboratories, according to the schedule, to having both the semester and the graduation exams as multiple-choice questions, they used Discord as a virtual classroom.

[2] Khushi P. Khanchandani et al., highlighted the features and comparison of learning management platforms (LMP) between Google and Edmodo. Google Classroom, and Edmodo, let the teachers, students, and parents communicate, access, evaluate the homework, share the content, and collaborate. This paper gave the analysis of usage of two technologies based on submission of assignment i.e., quiz, poll, lab work, usage, etc. The goal was to study the student's and teachers' preferences between Google Classroom and Edmodo.

[3] Ketut Sudarsana et al, presented the benefit of using Google Classroom in implementing education in Indonesia is to enhance the teacher's and student's quality to use technology carefully. Especially for the learning method, which saves time, is environmentally friendly, enhances collaboration among students, overcoming the distance of residence, secure document storage, and timeless communication. Some of the main strengths of Google classroom are that it's free, time- saving, and has organizational features that are simple to use.

3. SYSTEM ARCHITECTURE

This section introduces the design of intelligent classroom buildings and accepted technologies. All modern classrooms in many educational institutions today fall into this category. The teacher and students are connected online or through dedicated networks and the virtual classroom is built using audio and synchronized / asynchronous access information tools made available to each participant's computer.

Login and Registration:

This social classroom starts with a website that contains the information about social classroom. User needs to register first to create a classroom. After creating a classroom user will be provided with a key, an invite key that he can share with the students. Students have to login to the website

by creating an account and one can access all the facilities or the join organization. User and students can join multiple organizations at a time and in specific organization they can get access to their class. After login to the portal after joining the organization, user will be directed to the home page, where he can get an overview of his/her today's schedule.

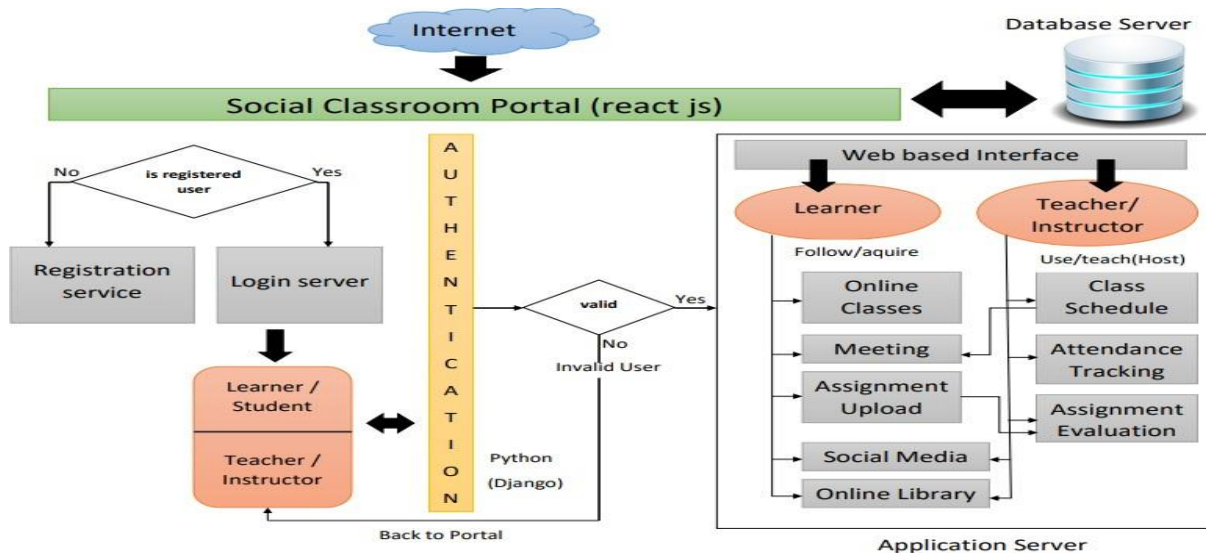


Fig.1: System Architecture

Online lectures and Practical and Class Schedule:

The classes can be scheduled as per the timing allotted or assigned to specific subject also the events or the guest lectures can be added as a meeting. The class can have interactive classes which include the scheduled meetings with the information of material of that specific subject.

If you take classes online, attending is as simple as opening up your computer or tablet. You can learn from the comfort of your home. When they answer, they can take as much time as they need to give you a thorough answer.

Attendance Tracking:

This will keep the track of the Attendance of the students and use of sheets will be vanished and no need to add the data manually.

Assignments Upload and Evaluation:

In order to get a homework assigned, a student needs to send an upload message specifying the course name and the homework number. After the assignment is uploaded it will be the work of teacher to evaluate the homework in the assignment evaluation section. Students can also be able to see their results of assessment in their profile section. It will notify the student about the successful upload. The assignment uploaded by the student will be received here in this session. After uploading the assignments, the evaluation of the work assigned can be done by both teacher and the teaching assistant can make comments on the homework and give marks. When the evaluation is complete, the bot will send a notification message to the student, with both the comments and marks.

Helping Chatbot:

A help Bot used for managing a server to create support between user and a helper. It will serve as a helpline which will provide on spot answers to the students and resolves their queries. This chatbot can be used anytime anywhere.

Online Library:

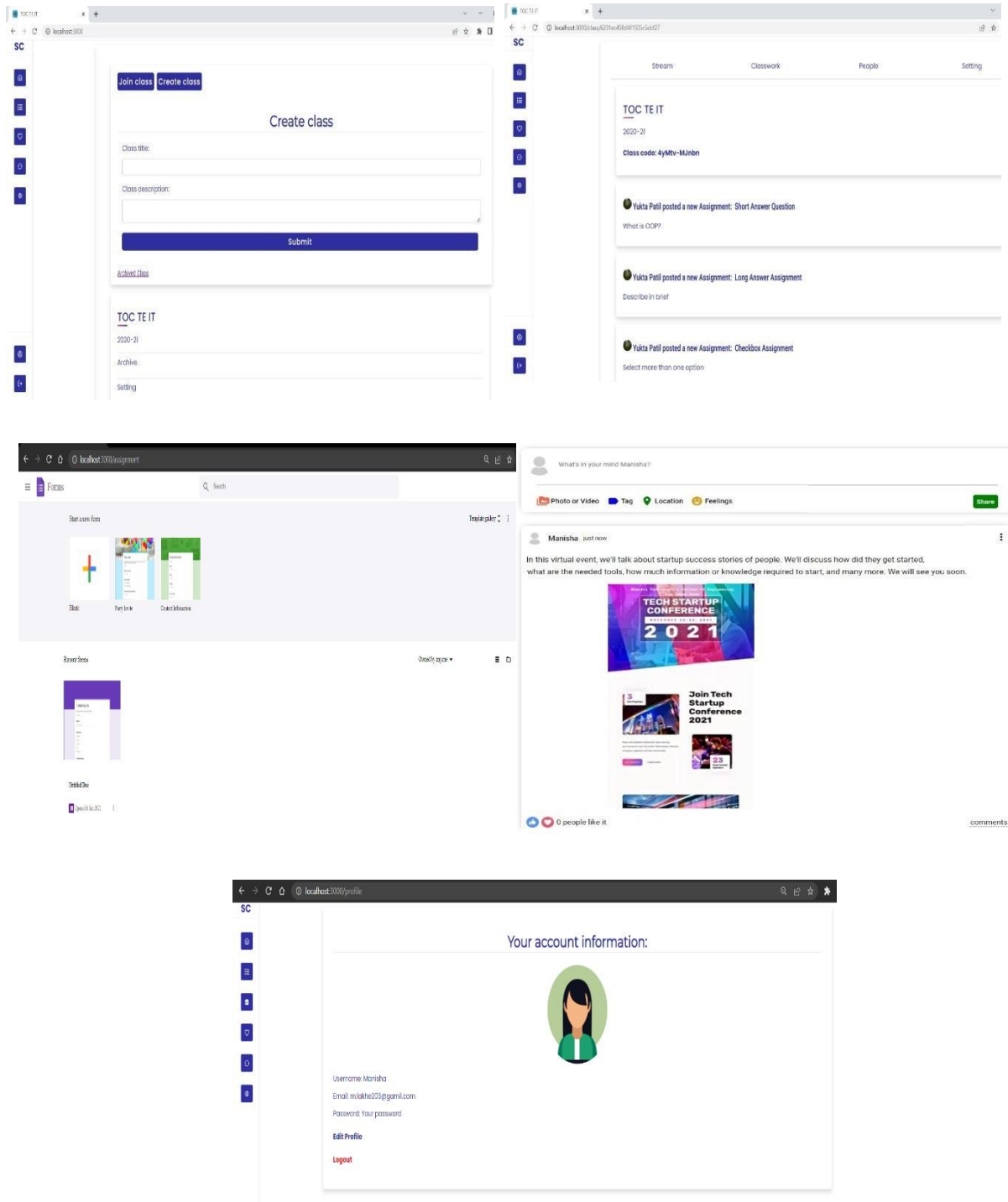
You could direct to a host of free online libraries where one could do their research for their college projects and catch up on their fiction lists in their free time as well. Books/Journals/Reference can be shared online using this feature which include different types of books related to the courses which are assigned for specific year.

Social Feed and Profile:

This will include “extracurricular” that needs to be filled out. One can upload their achievements, post blogs, news feed, notices, event related ideas and post can be uploaded. Other members in the classroom can see, like and acknowledge the post. The Events notifications can be given through animated effect so that it may look attractive and many of them will participate. Posts like the videos related to specific topic can be added. Blogs and one can post their views related to any technical or informational topic. News feed can be related with current happenings in the campus or any event approaching. Passed out students can share their view or any other experience related to the placements round like how the rounds are take place what are the things required what are the key points one should one remember while giving those rounds or the company approach work or the work in the company in which they have been placed like what are the recent technologies used.

Respective student can see his progress which are related to academic also the assessment marks can be displayed with a marksheet, in his/her profile.

4. RESULT AND ANALYSIS



5. FUTURE SCOPE

Social Classroom can be easily implemented under various situations. The new features can be added are Record a Meeting for Later, Increase Limit of users to join a meeting, Media getting more local and integrated, More Security effective. Also adding such features, design and presentation will make application productive to use.

6. CONCLUSION

“Education is the most powerful weapon one can use to change the world” but with these changing times of COVID-19 education is restricted. By using multiple applications for different purposes, this online education has led to huge memory usage. We are determined to provide the best solution to these by developing a “Social Classroom”.

Social Classroom is a web-based application to serve all the purposes for online education. Being unique to its organization and with feature of creating classes, inviting students, taking online lectures and practical, assigning the assessments and evaluating them and many more, we provide you the future for online education.

Being a web-based application, this classroom will require zero storage on your device. Feature of library will provide on demand study material. A social platform to highlight achievements. Use of BOTs will make tasks easier as well as interesting to work with. This is a formal evaluation of this online educational environment can help us to improve the educational outcomes of our students, while still in pandemic, but also after, both in formal and informal education.

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