



A Modern Approach for Broadcasting Group Messages with Confidentiality Induced

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ABSTRACT

A dedicated forum for institutions using Node.js and React.js , where users are authenticated by their college email Id, so that one can be sure that the user is indeed a member of a particular college. The username will be the registered roll no issued by their institution. If a user makes a post, his username will be visible along with the post. Users can post text, images, videos, files. This forum can be used for announcements, to store data, images, videos, files related to any events and activities. This forum can be really helpful for any community to share individual thoughts and opinions. All the images and media are stored in IPFS (interplanetary file system) to reduce the cost of the database. In this forum there also exists a chatting functionality, one to one interaction and also group interactions

Keywords: Forums, Web Development, Node Js, React Js, MongoDB

1.INTRODUCTION

The web application for efficient mode of communication between all the members of a particular university can be really helpful if implemented correctly and efficiently. This web application most often referred to as Forum fills that gap between the members of the institution. This web application is implemented using React.js and Node.js which is the most popular web development framework. This application can be used for announcements inside the university and to store various data regarding that particular university like events and fests. Since this web application uses the IPFS(interplanetary file system) for storing data the cost of maintaining that database is very less. In this web application any user can post anything.If people like that post he/she will be rewarded by upvotes and if people don't like it, one will be penalized with downvotes.

2.LITERATURE SURVEY

Primarily based on the inference from our reference base paper we got here to recognize that there is a need for a protocol for efficient mode of communication between the different people belonging to the same university, mainly for announcements purposes and also to interact with other people. We came to know that a community is stronger only if there is an efficient way of communication among its members where students and faculty can share their opinions, thoughts and emotions immediately to everyone belonging to that university. This web application is greatly inspired by The Gamestop story, where a group of retail investors on an internet forum called Reddit (r/wallstreetbets) raised the stock price by 1,700 percent. Revolutions like this happen only if people are able to do something collectively. This application is designed to address problems, penalize the wrong doings and reward the right things that are happening in that community. Based on our research we came to notice that once the student has graduated he doesn't have the proper way to know what is happening with his university, but using this application a person who once studied in a university can still interact with the college. He can know how the college is, and events that are going on, by seeing all the posts that other users or university members post. This application is also designed to use the polling functionality to instantly know the opinions of that university. This is really helpful if one wants to get suggestions on something instantly. This forum provides a way for any student or member to ask help instantly regarding the studies or other things, then the interested people can respond in the comment section. This forum can be useful to showcase the projects or achievements done by the students or other users. The users can find the like minded people available throughout the university, if they want to collaborate to make projects, organize events or do something for common good.

3.WORKING

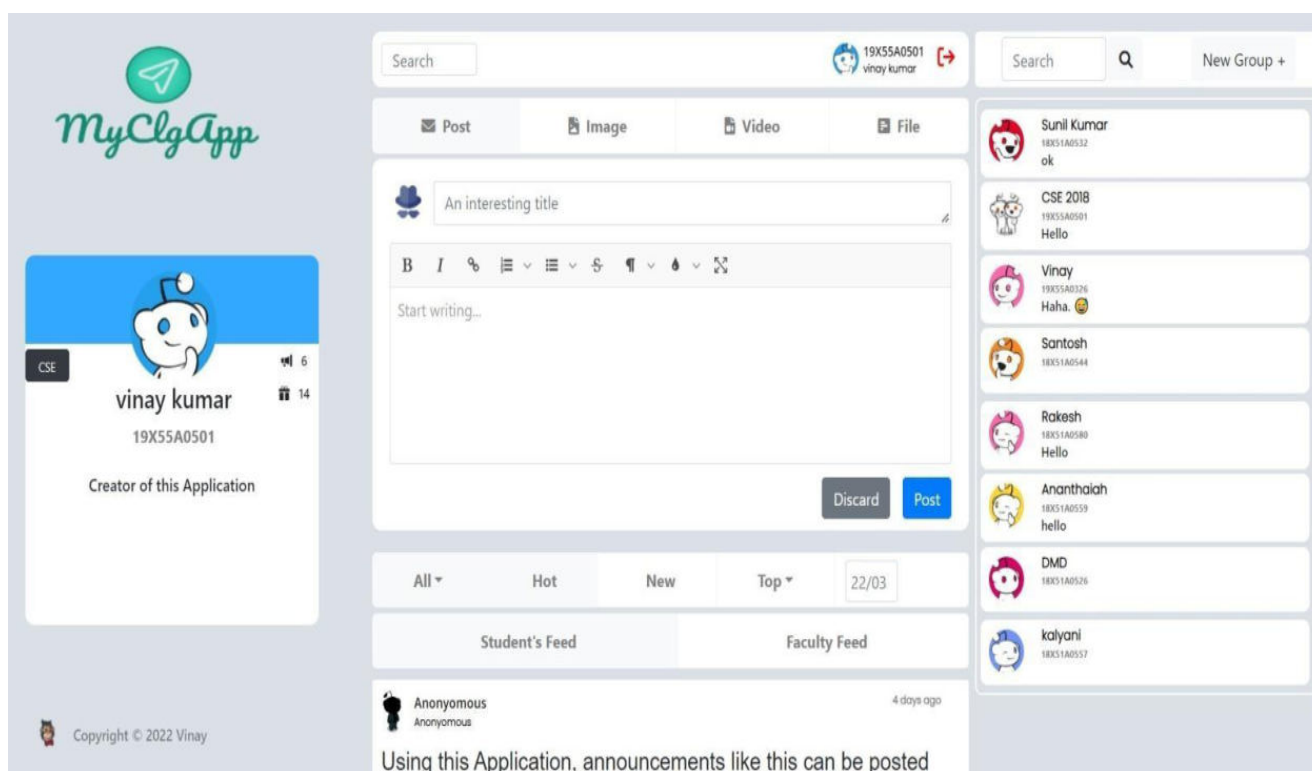


Figure 1 Homepage of the forum.

On the homepage, on the left side one can see their profile which consists of their username, name, department and their description which can be edited later if they want. Along with their profile, there exists the count of their total posts and aggregate votes of all their posts. On the right side, there exists a chat pane which is used either for one to one interaction or group interaction. The middle section is the main section which consists of Editor for the post, filters and the actual posts. The top search bar can be used to search other users and if clicked on any specific user, one will get redirected to that user's profile. The recommendations will be populated as soon as one starts entering in the search box. One can either search by username or name. This functionality is being achieved in this application using the regular expressions. One the left side of the top bar, one can see their profile and the logout button. By clicking on the logout buttons, one will get logged out of this web application. In the post section one can post either the text or other media but the title for the post is necessary, if the title is not entered the post will not be posted, similar to reddit. One can post images, videos or any type of file by clicking on the corresponding icon or button. One can choose to be anonymous if they want by clicking on the incognito icons. If this icon is selected the post will be anonymous i.e., no name and username will not appear in the post. And if it is not selected the post will be a normal one. After one completely edited the post, one can click on the post button to post and on the discard button to destroy the post. One can post multiple images, videos, files or any combination of these.

The post feed on the homepage can be changed by the user using the filters that are available like NEW, HOT, ALL, CSE, ECE, EEE, MEC, TOP. The users can even filter by date. The users can use any combination of these filters as they wish. One can understand that the data is very organized in this web application and one can retrieve any specific information. This is a very useful feature. This feature makes this application stand out from other social media applications. There also exists a student feed and faculty feed filter. Students feed consists of posts only related to the students and the same applies to the faculty feed.

4.PROFILE PAGE AND COMMENT PAGE



Figure 2. Profile page

A specific profile page exists for each individual user where all the details of that user will be displayed including all the posts he made starting from the start. And even these posts can be filtered using NEW, OLD, TOP and YY/MM (date format) which again can be very helpful as the posts and users increase. One can go to their profile page by clicking on the profile icon at the top. One can go to other profiles by clicking on the profile icons of other users (normally appears along with the post)

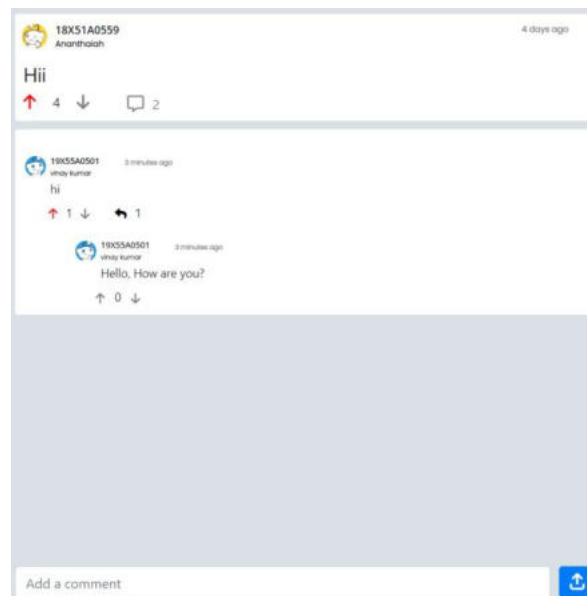


Figure 3. Comment page

There exists a separate page for the comment section. One can go to the comment section by clicking on the comment icon which appears along with the post. One can comment on any particular post or you can even give a comment to a comment This forum has two Dimensional commenting systems. One can upvote or downvote any comment just like in posts.

3. CHATTING FUNCTIONALITY

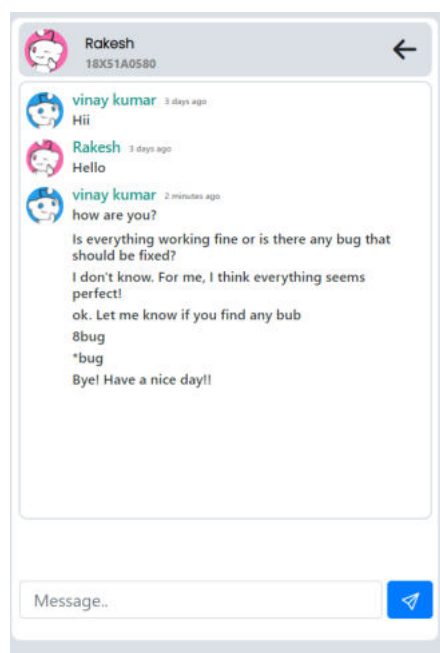


Figure 4. Chatting functionality

On the left side of the application, one can see the chat pane where any user can interact with any other user. They can find other people by searching in the search bar. After clicking on the search icon, all the related users will be populated and one can select any user to chat with. If you click on the search icon without any keywords in the search box all the users will be displayed.

There also exists group chats where many users can interact at once. But these groups can only be created by the faculty, students can not be able to create these groups. And only the faculty can add or remove any user from the group (this is done to reduce the data storage). If one clicks on the group profile or name which appears at the top, they will be redirected to the profile of that group.

4. CONCLUSION AND FUTURE WORK

This Forum can easily support any browser. Various updates can be performed in this forum in the coming future. This forum will result in minimizing the gap amongst different users. This forum gives a platform which results in an easy way of communication amongst different people from different areas. The chat facility which was a program built in the forum can be very useful for interaction with other students and faculty in an efficient way. The group chat functionality enables people to chat with many users at the same time with very little latency which increases user experience. The forum serves as a bridge for communication between different people of the same institute.

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