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KONNECT-MATES

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Abstract: The purpose of writing this paper is to share the implementation of the project known as Konnect-Mates that is created as a major project for college. The foundation of this project is based upon the core idea of Social Network. Social Network helps people to connect from all over the world. The basic difference between this project and other Social Network platforms is to make it super simple, junk-free, and free from all trackers. The name Konnect-Mates is actually derived from the words Connect and Mates. In short Connection between Mates is Konnect-Mates. The project is completely web-based and can be used on any device which has any kind of browser installed. Any new user can simply register on this application and it provides a unique id and username for the same. This platform is 100% free and open for anybody to register and use without any restrictions.

Keywords **- Social Network, Social Website, User Profile, Chats, Comments, Like, Dislike, Posts**

I. INTRODUCTION

More than 1000 Social Networking platforms are available right now. People use them every single day and so much information is transferred with the help of Social Network. This gave an idea to create a Social Network platform so that anybody can share their thoughts or views. Social Network nowadays is a double-ended sword. You use it for good you will receive good and if you use it for bad you will receive bad. So, with that intention, we made this application completely different from junk that is regularly sent via other platforms.

Instead, we focused more on creating a strong profile of each and every user and we process data with modern security practices. After the creation of a profile, every user can have a profile that looks like a resume i.e. completely well-organized with background and education. The users who aren't logged in can look into their profile and can easily learn about their entire information on just one website i.e. ours. A dashboard gets created uniquely for every user so that they can update their details as per their need.

The community chat section is also created so that any signed in-person can chat globally with anyone. And they can comment and get likes within the feed. If this was a project made for college then it will help a lot. At first, every student can log in (only with college email) and they can form a network through which anyone can chat or discuss something with anybody. If a recruiter visits the website to hire clients then the student can present their resume as they created their profile. In the end, a very great tool to connect students and reap all the benefits in one application.

II. LITERATURE REVIEW

Social Networking platforms are most popularly known for creating connections from anywhere around the world. The power of social media is so effective that if anybody wants to know anything around the world, then the user visits specific channels to join groups where information is displayed at your fingertips and the user can comfortably watch without leaving the house. Similarly, Social Networking too have negatives if somebody spreads fake rumour on the platform and if those account followers are pretty high then there is a higher possibility of misleading people and that can even result in riots or something worse.

Such a powerful platform requires expertise and numerous studies and research so as to minimize all disadvantages. Though it isn't possible to completely remove the negatives, all we can do is to stop misleading so as to minimize the damage. Hence Konnect-Mates is made with that consideration; we intentionally made the chat section as a community chat section so that if somebody spreads something, then its information is necessary to be accurate and valid also it doesn't contain harmful content. If some user identifies this misleading act then that user must quickly report it so that we can remove that post or else terminate the account.

Konnect-Mates provides opportunities for the corporate sector as well as other sectors. Nowadays people require a reliable platform to trust and get all the information in one single link or website. Hence this same platform provides an ease to the colleges and recruitment faculties. Colleges can allow their students to register through this application and teachers can forward their messages, assignments, or notes. Each and every registered student gets an exact post done by their respective teachers at the same time via the community chat section. Recruitment faculties can hire individuals based on their experience and the education provided. Hence, they can easily contact them and have one-on-one conversation via their details found on this application.

III. DESIGN

The Architecture flowchart below Figure 1 describes the entire flow of the application. Every user must start from the Homepage and then all the possible pathways are described via arrows. The rounded rectangle box describes the current location on the application, while the rectangle box describes the change in state. The diamond-shaped boxes describe conditionals and the process box describes the process.

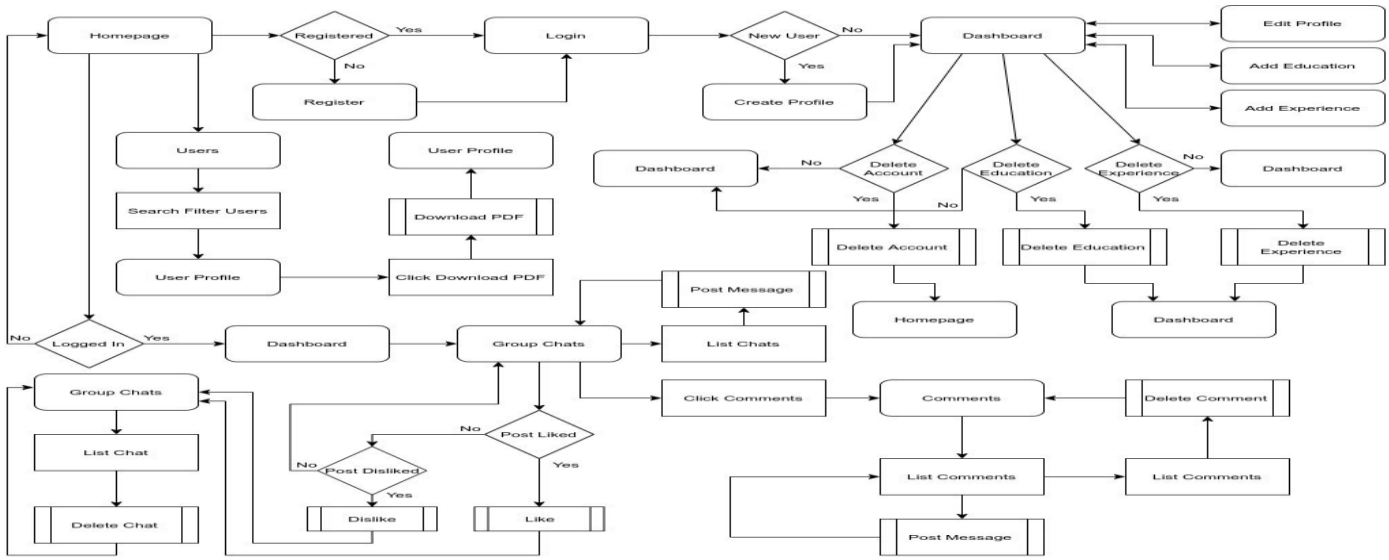

Figure 1: Architecture

IV. IMPLEMENTATION

Konnect-Mates is made with advanced and trustworthy technologies with the help of JavaScript and its frameworks. Hence the project is initiated with MERN Stack Technology i.e. MongoDB, Express, React, and NodeJS respectively. The entire Backend is designed with NodeJS and Express. The database is stored MongoDB. The Front-end is designed with the help of React and Redux. Modern security practices were implemented for storing passwords and login details.

A. Homepage

The homepage describes the start of the application (/). The start page consists of the introduction of the application with two buttons aligned just below the introduction for login and registration. The navbar above consists of links for Homepage, Users, Sign in and Login respectively. The footer below consists of links to different page locations such as Installing as an application, Version Changes, Terms and Conditions, and Contact respectively.

B. Register

All new users must register through the Register page. This page contains a form to fill up for Full Name, Email, Password, and then a submit button to register an account in the application. If some error encountered while processing the data then an error message shows up. If the registration is successful then the user is redirected to the login page.

C. Login

Every registered user must log in via Login page. In this page, the user will be asked for an Email and Password. If the user enters the correct details then the user will be successfully logged in and a token is generated in the browser's Local Storage which will automatically get destroyed after 2 hours. This means users need to log in again after 2 hours logged in time so as to use the application. Hence after successful login, the user will be redirected automatically to the Dashboard page.

D. Dashboard

The Dashboard page consists of all your details filled up previously and also it lists the details of the user's experience and education. If users haven't filled up their experience or education details then by default there will no experience or education listed. After successful login, the navbar items change. The Group chat and Logout link get added. The Login and Sign Up links get removed. Even if the user clicks the Homepage or tries to visit the Homepage then the user will be always redirected to the Dashboard Page. The user is welcomed via Welcome {username} on the Dashboard page. And If the user clicks the username link then the user will be forwarded to the user profile. Also, a button is available to permanently delete the account, if user confirmation is true then the user's account will be deleted and the user needs to register again.

E. Edit Profile, Add Experience, Add Education

All three pages are linked in the dashboard section, the user needs to click the links and fill up their details respectively. If a new user is logged in, then the user will be shown a link to create a profile wherein the user can choose the username and fill up the required details respectively.

F. Users Page

This page is available for logged-in and non-logged-in users too. Any user can find their mates with the search box provided by searching their name or username. After clicking on the profile, the user will be redirected to their profile page and the user can read details about the particular profile respectively. Also, a Download PDF button is highlighted on the profile page. By clicking that button, the user can download the entire profile page as a PDF Document just like a resume.

G. Group Chats

This page is only available for logged-in users. Any user can post ideas or thoughts via chat box and after submitting the post content it gets posted as a post on the Group Chats page. Also, the user can scroll from top to bottom and vice versa with the button arrows functionality, so that the user can read previous and recent chats. The Like, Dislike, and Delete buttons are automatically added with each individual post. So that the user can like, dislike any post and delete its own post. And for loading recent chats done within the same time, the user needs to refresh the browser to fetch new chats.

H. Comments

This page is separate and unique for each individual post. After clicking the comments link on any of the posts, the user is redirected to the Comments page. Also, the user can scroll from top to bottom and vice versa with the button arrows functionality, so that the user can read previous and recent chats. Similarly, any logged-in user can comment on any of the posts and can read previous comments respectively. Only the comment done by the logged-in user can delete its own comment.

V. TESTING

The application is tested with various test cases as shown in Table 1 and the purpose of the testing was to make sure the application works as expected. Hence for the majority of features like sign in, login, creating a profile, chatting, and commenting. We expected the following output to be true. Hence before deploying the application, the following test cases were conducted so as to make sure the application works perfectly without any issues. If we found any feature to be not working properly as expected, then we marked it as beta and in the next release, we would eventually fix that feature.

No.	Test Case	Expected Result	Actual Result	Test Passed
1	Website working on different browsers	Browser Compatible	Works with all Browsers	True
2	Responsive Design	Work on all devices	Fully Responsive on all devices	True
3	User Registration	Register without errors	Registered Successfully	True
4	User Logging	Log In without errors	Logged in Successfully	True
5	Redirected to Dashboard	Homepage click Redirect	Redirected to Dashboard	True
6	Create Profile for new user	Creation of Profile	Created Profile Page	True
7	Edit Profile for all users	Edit option for all users	Edited Profile Page	True
8	Add Experience and Education	Adding that functionality	Functionality working properly	True

9	Delete Education and Experience	Deleting that functionality	Successfully deleted	True
10	Permanent Delete Account	Delete Account	Deleted Account successfully	True
11	User Profiles view	Load all user Profile	Loaded list of Profiles	True
12	Viewing Individual Profile for anybody	Page for every Profile	Successfully viewed Profile	True
13	Download profile as PDF	Download Profile as PDF	Downloaded Profile as PDF	True
14	Fetch GitHub repositories	Fetch from GitHub	Listed all GitHub repositories	True
15	Group Chats	View all posts	Listed all posts	True
16	Posting on Group Chat	Post on Group Chats	Posted Successfully	True
17	Like, Dislike any post	Working	Successfully liked and disliked	True
18	Delete logged in user post	Delete the post	Deleted Successfully	True
19	View comment page of any post	Load Comments Page	Listed all Comments	True
20	Post Comment under post	Post on Comments Page	Posted Successfully	True
21	Delete logged in user comment	Delete post	Deleted Successfully	True
22	Logout	Logout user	Successfully Logged out	True

Table 1: Testing and Results

VI. CONCLUSION

Everyone is aware of the importance of a Social Networking site and how every user can benefit from the simple yet powerful application which was made with consideration to connect people all over the world. Konnect-Mates also become one of the Social Networking sites and this became possible after carefully programming it with advanced libraries, the application is running fine and stable. The purpose of making this application is henceforth fulfilled and our developers too gained lots of experience and got real-world knowledge of how to make an application with all the knowledge gained throughout the life.

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