Social Media App

A Project Report submitted partial fulfillment of the requirements for the award of the degree of

Bachelor of Technology

In

Computer science and Engineering

Under the Guidance of
Dr.Manoj Varshney
Assistant Professor

Department of Computer Engineering & Applications
Institute of Engineering & Technology

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Declaration

I/we hereby declare that the work which is being presented in the B.Tech. Project **"Social Media App"**, in partial fulfillment of the requirementsfor the award of the ***Bachelor of Technology*** in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLAUniversity, Mathura, is an authentic record of my/our own work carried under the supervision of Dr. Manoj Varshney who is **Assistant Professor Dept. of CEA** in GLA University.

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

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Acknowledgement

It gives us a great sense of pleasure to present the synopsis of the B.Tech mini project undertaken during B.Tech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe special debt of gratitude to Dr. Manoj Varshney, Associate Professor, (Dept. of CSE)for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constantsupport and guidance to our work.

His sincerity, thoroughness and perseverance have been a constant source of inspiration for us. We believe that he will shower us with all his extensively experienced ideas and insightful comments at different stages of the project & also taught us about the latest industry-oriented technologies. We also don't like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and co-operation

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ABSTRACT

This is the era of internet and there are a lot of Social Media platforms out there that facilitate the sharing of a vast variety of user generated content. LinkedIn is a business and employment oriented social platform whereas Twitter is used to share recent news trends and updates. Pinterest is about discovering new content and ideas while Facebook is more about catching up with friends and family. These networks and virtual communities cast a tremendous amount of influence on their users. Here we have a similar content-oriented platform called Social. It is designed and built for the users to connect and share digital content (like text, images and/or gifs) related to community, social, healthcare and welfare services. MERN stands for MongoDB, ExpressJS, ReactJS and NodeJS (the four key technologies that make the stack) and is used to built this fully responsive web application in conjugation with other APIs and tools. Index Terms—MongoDB, ExpressJS, React, Node, Backend, Frontend, dependencies, Social Media, APIs, SPA (Single Page Application)

Contents

1. INTRODUCTION

The Internet has rapidly evolved from just a social platform to a social network that is used to share content, ideas, and information. As a result of social networking, people's communication styles have changed. It affects almost every aspect of our lives: education, communication, employment, politics, health care, public relations, and personal productivity. A telecommunications service (SNS) is An online platform used to build and develop relation between peoples. It provides ways to Users to interact online with people with similar interests, either for romantic or social purposes. Emails, instant messages, online comments, wiki, digital photographs, videos, and blog post submissions are all possible. It also gives people with disabilities the possibility to express their mind and ideas in public. Social networks serve two roles as content companies and purchasers. They choose which users get access to his information. A profile is generated with answers to questions, consisting of age, area, hobbies, and many others. Some web sites permit users to upload pix, upload multimedia content material or alternate the profile and sound of profiles, weblog posts, feedback, hyperlinks, and sharing Contact listing. Users can choose who can view, edit, and add to their friend list, and so on, to preserve their privacy on social media platforms. Social networking has modified the way people communicate, percentage data, and engages with people. It enables people to communicate as well as interact with each another over the internet. As the recognition of social media grows,new technology grows to be increasingly famous.

2. MOTIVATION FOR WORK

The MERN stack social media app report could have several motivations, depending on the goals of the person or organization creating it. Some possible motivations could include:

1. Technical evaluation: A report could be created to evaluate the technical aspects of the MERN stack social media app, including its architecture, design, functionality, performance, and scalability. This information could be useful for developers who want to assess the quality of the app's codebase and identify areas for improvement.
2. User experience analysis: A report could also be created to analyze the user experience of the MERN stack social media app, including how easy it is to use, how engaging its features are, and how well it meets the needs of its target audience. This information could be useful for designers who want to improve the app's usability and enhance the user experience.
3. Business assessment: A report could be created to assess the business potential of the MERN stack social media app, including its market demand, revenue potential, and growth opportunities. This information could be useful for entrepreneurs who want to launch a social media app and investors who want to evaluate the app's viability.
4. Comparative analysis: A report could be created to compare the MERN stack social media app with other social media apps in the market, including their features, performance, user base, and revenue. This information could be useful for marketers who want to identify the app competitive advantages and weaknesses and develop a marketing strategy to attract users.

3. PROBLEM STATEMENT

As social media apps continue to gain popularity, it is important to understand how they are impacting user behavior and the broader social landscape. There is a need to evaluate the performance, user experience, and business potential of social media apps, such as the MERN stack social media app, in order to identify areas for improvement and growth. Additionally, there is a need to compare the MERN stack social media app with other social media apps in the market to understand its competitive advantages and weaknesses. By addressing these issues, we can gain insights into how social media apps are shaping the way we communicate and interact with one another, and develop strategies to optimize their impact.

3. HARDWARE SPECIFICATIONS:

- Processor: i3/Intel or Above
- Processor RAM: 8GB (min)
- Hard Disk: 128 GB(min)
- Key Board: Standard
- Mouse: Any
- Monitor: Any

4. SOFTWARE SPECIFICATIONS:

- Operating System: Windows 7+
- Server-side Script: JavaScript
- IDE: VsCode

What is MERN Stack :-

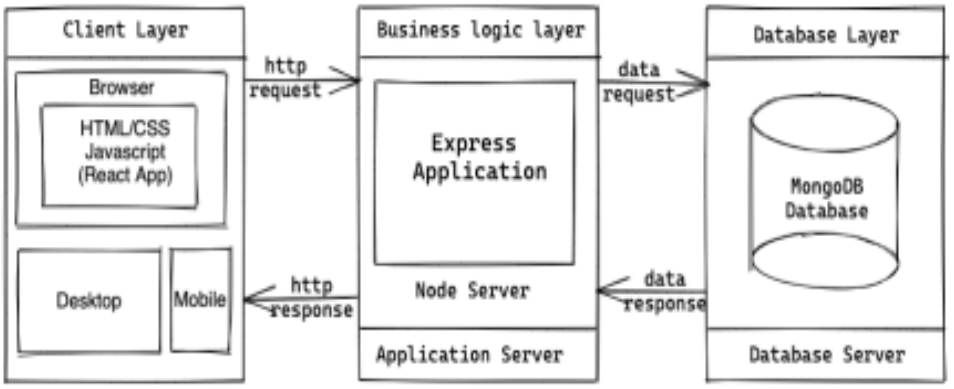
MERN stack is a framework used for creating websites (web app development). MongoDB, ExpressJS, ReactJS, and NodeJS make up its functional components. The specific role of each of these elements while creating a web application are listed below:

• MongoDB: The application data is stored in this document-oriented, No-SQL database.
• NodeJS: This is the JavaScript runtime environment that is used to run the JavaScript code on the machine itself, instead of a browser.
• ExpressJS: It is a framework that sits atop NodeJS and is used to create a website's backend using NodeJS functions and structures. NodeJS was created to run JavaScript on computers, not to create websites, so ExpressJS was created to fill that gap.
• ReactJS: It is a library that Facebook built. It is used to build the UI elements that go into a single page web application's user interface. The user interacts with the ReactJS UI components in the front-end of the application, which is situated in the browser. The backend of this application, which is located on a server, is served by ExpressJS, which is built upon NodeJS.

A request to change data is sent to the Express server, which is built on NodeJS, after any interaction. When necessary, Express fetches information from the MongoDB database and sends it to the application's front end, where it is shown to the user.

A single-page web application (SPA) or website interacts with the user and dynamically updates the current web page rewriting the new or modified data from the web server, in contrast to the traditional practise of a web browser loading entirely new pages. The webpage will transition more quickly to boost the appearance of a native app. As opposed to the traditional way, all essential HTML, JavaScript, and CSS code is either fetched by the browser with a single page load or the required resources are dynamically updated and loaded to the webpage as needed, generally in reaction to user activities. A SPA never refreshes the page. Even using the tools mentioned above, it is difficult to build a high-performance app that is fast, responsive, user-friendly by design and secure, maintaining user integrity and security.

5. PROJECT DESCRIPTION



1)BACKEND (SERVER-SIDE):-

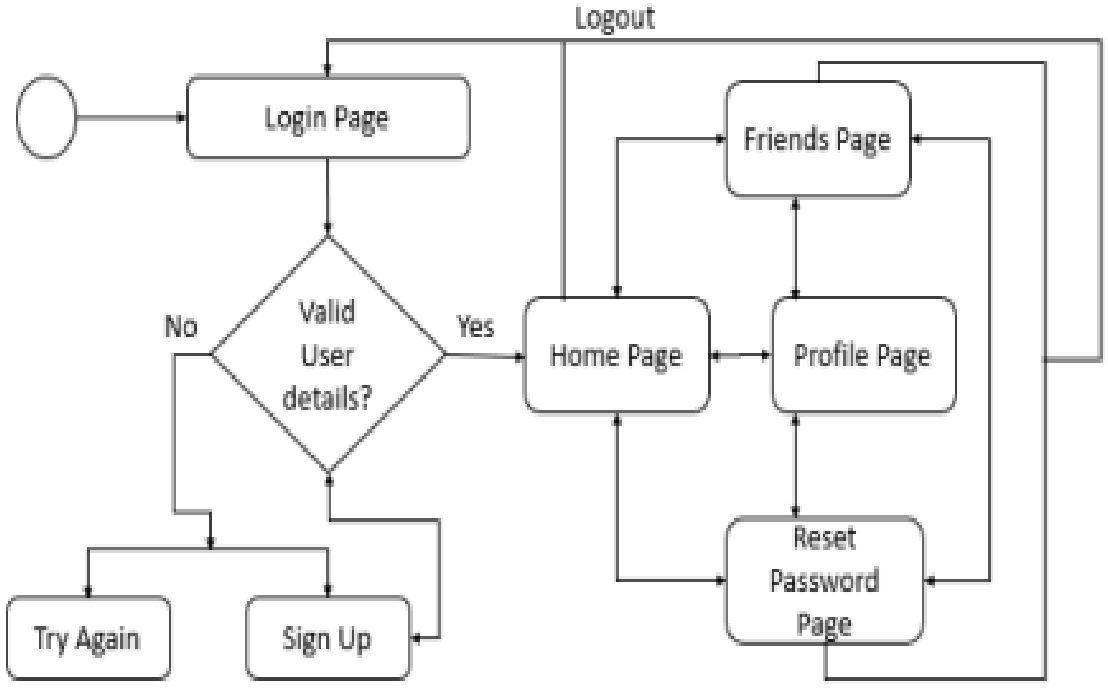
Building websites and web apps has always been done using server-side rendering, also referred to as back-end web development. When we access a page, we send a request for data to the server, which processes it and sends back a response to the browser. All the activities required to build an HTML page that the web browser can understand are carried out on the remote server that houses the website or web application when a website renders server-side. This entails processing any required logic as well as information queries from databases for that web application. While it waits for the distant server to finish processing the request and provide the response, the web browser on the other end sits idle. When a response is sent, web browsers interpret it and show the material on the screen.

2) FRONTEND (CLIENT-SIDE):-

Client-side rendering, often known as front-end development, is a new style of site rendering that is employed in contemporary apps. JavaScript, which is now the de facto standard web language, is used to render the content on your computer as opposed to a distant web server in clientside rendering. In actuality, this indicates that a browser is responsible for generating the HTML output of the web application and that a server is only needed to provide the raw web application. Additionally, it shows that a piece of the presentation logic—the reasoning used to create a web page and display it to the user on the screen—is handled on the client-side. With the introduction of JavaScript libraries like Angular, React, and Vue, client-side rendering became more common.

6. WORKING

The Social Media Platform we are building here is a fully responsive and functional web application where a user can upload or view image or text based content and connect with other users which by extension will be the content filter for our application. User can view other connected user's uploaded content sorted by regency and can upload content of their own that will be visible to other connected users. The user can like or comment on the posts or feed of other connected users and vice versa. They can send and receive connection requests to and from other users and respond to accept only the ones they approve. The idea of the project is to provide a working model of an actual Social Media Platform deploying a certain set of tools and technologies.

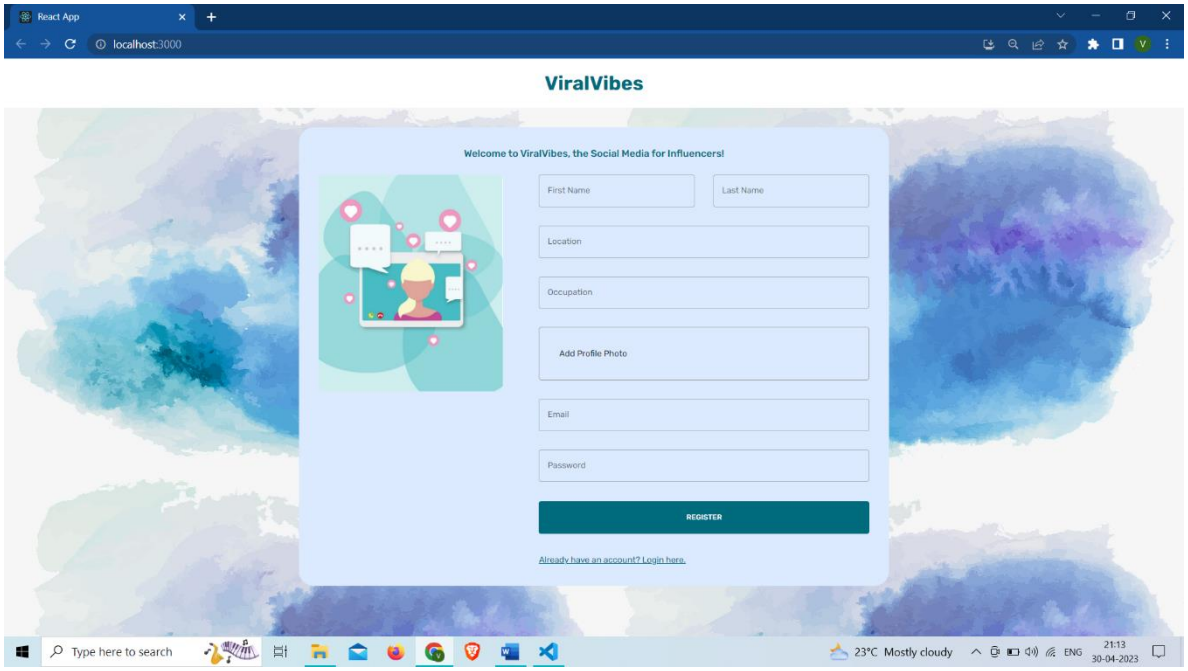


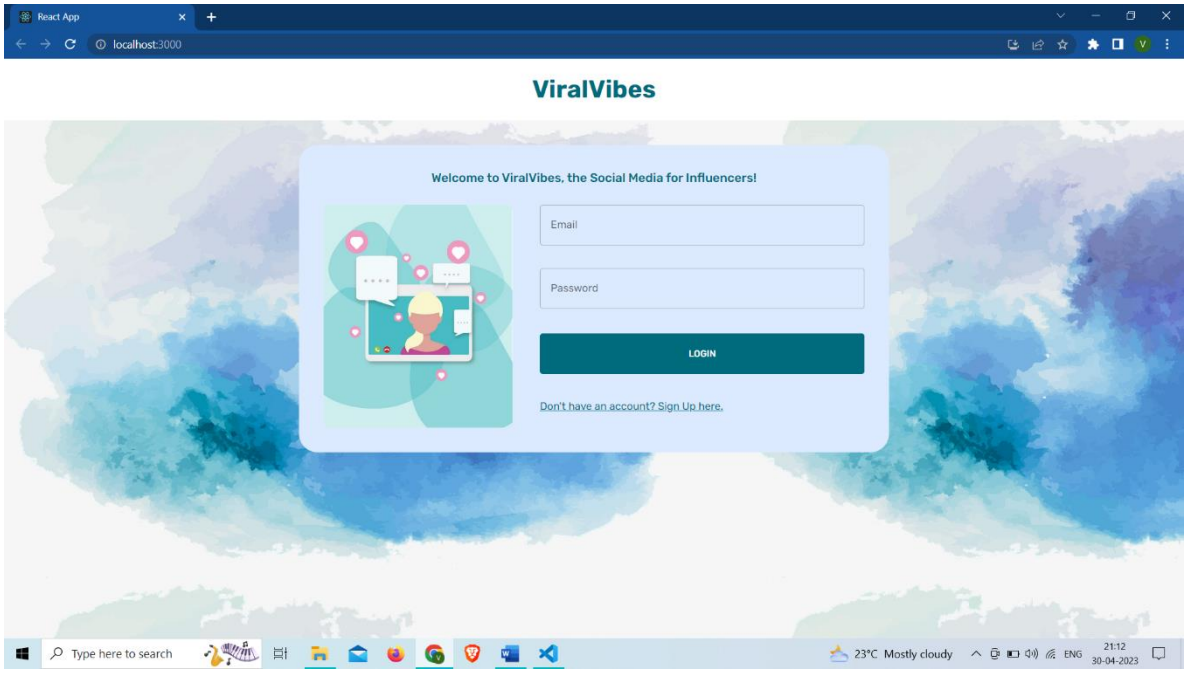
The data in our MongoDB database is abstracted by the models defined in the Node.js server. It is because of this abstraction that we call on Mongoose schemas in order to construct a blueprint of how we want the added data to look and behave. A document data structure that is imposed by the application layer is called a Mongoose schema. Models are more complex constructors that accept a schema and produce a document instance. The Mongoose schema is contained within a Mongoose model. A Mongoose model offers a database interface for creating, querying, updating, removing, and modifying records, whereas a Mongoose schema defines the structure of the document, the default values, their validates, etc. The compiled form of the schema specification that corresponds exactly to a single document.

7.Conclusion:-

The goal was to build a content oriented social media platform using mern stack. We here, successfully built a social media platform called Social where the user can access, view and generate digital content under the humanitarian genra. The web application is fully functional and responsive and provides great user experience alongside serving a purpose. Social Media today owns the market, casting influence and shaping behavioral and purchase patterns. ”The Science of Influence” is a report on how social media influences decision making, 40% of respondents across generational categories identified social media as having an influence on their travel related decision-making. Social media was still prominent in other areas, albeit to a lesser extent; 25% of respondents said it was in financial services, 22% said it was in retail, and 21% said it was in healthcare. As a close friend casts much more influence, through the connectivity they offer, social media posts became the most influential source across all generations.

8.Result:-


React App
localhost:3000
ViralVibes
Welcome to ViralVibes, the Social Media for Influencers!
First Name
Last Name
Location
Occupation
Add Profile Photo
Email
Password
REGISTER
Already have an account? Login here.
Type here to search
23°C Mostly cloudy
ENG
21:13
30-04-2023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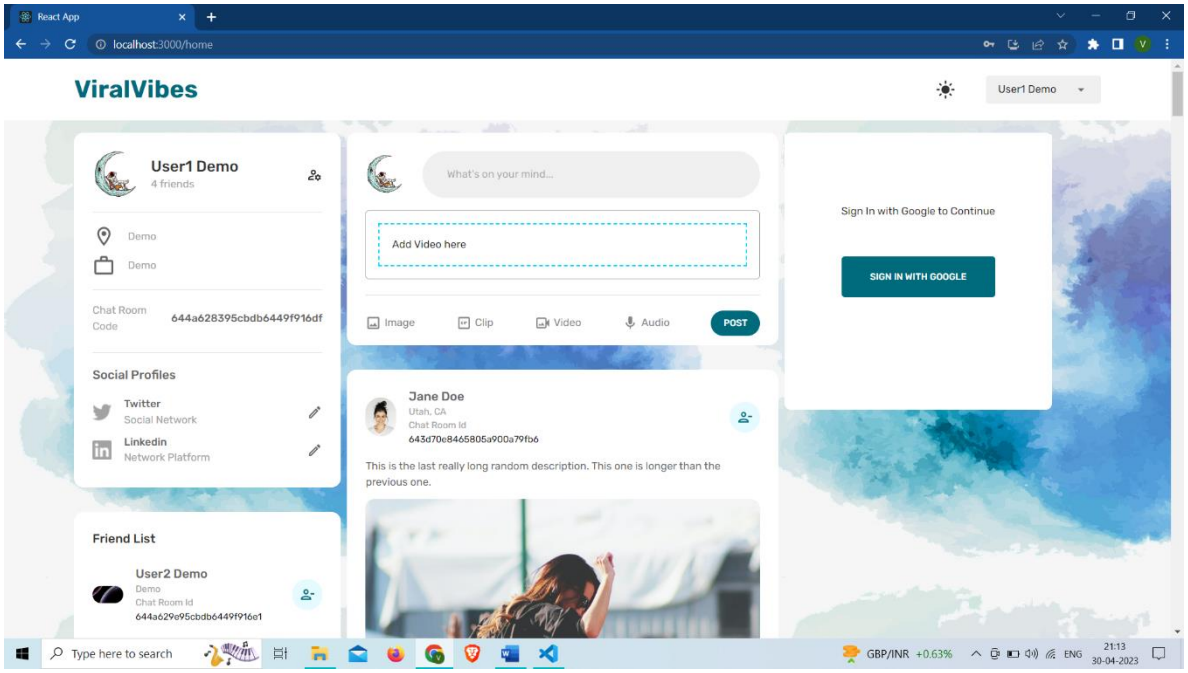
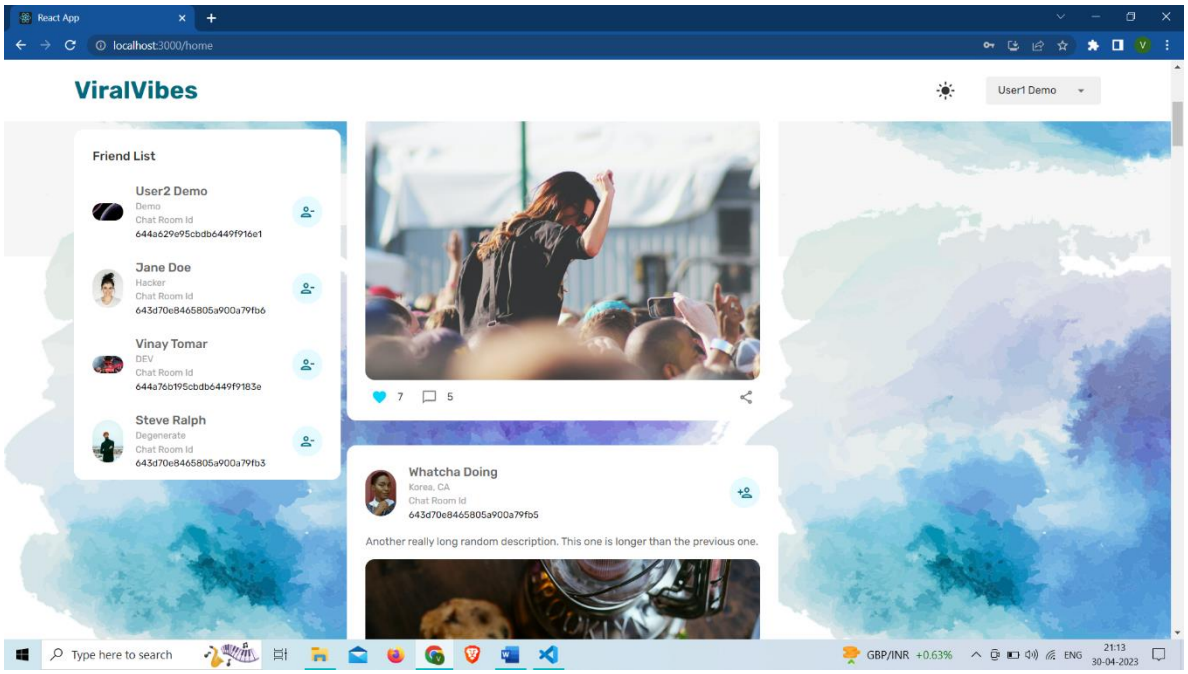
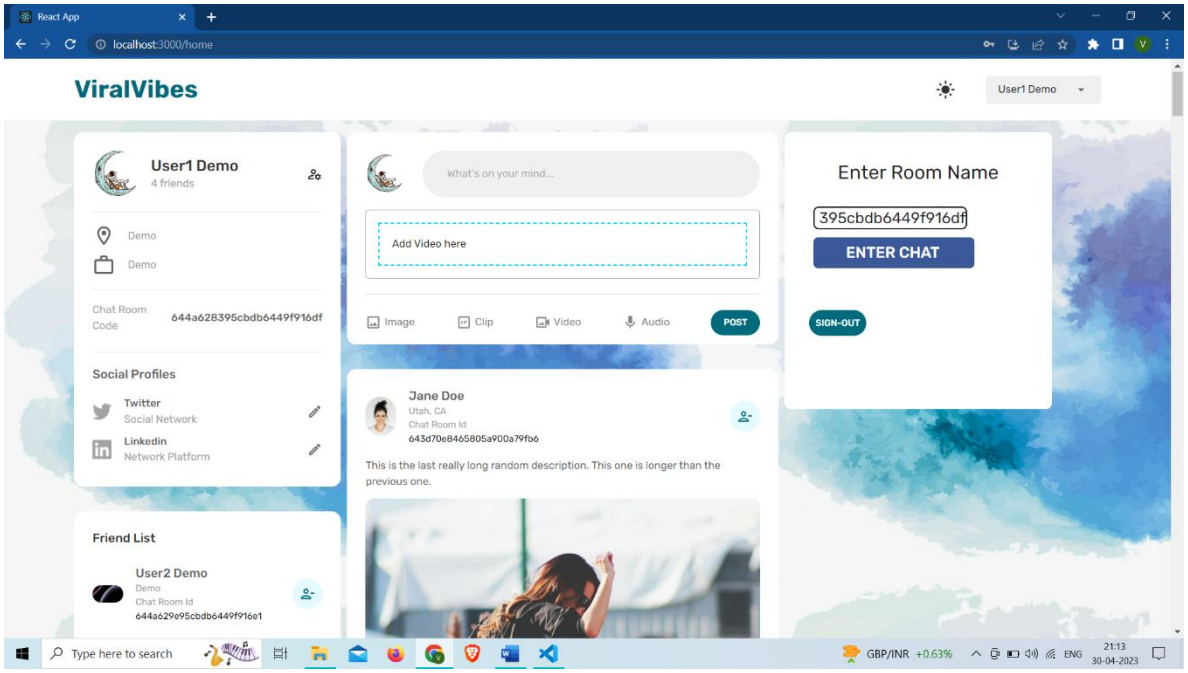
ViralVibes
Welcome to ViralVibes, the Social Media for Influencers!
Email
Password
LOGIN
Don't have an account? Sign Up here.
Type here to search
23°C Mostly cloudy
ENG
21:12
30-04-2023


React App
localhost:3000/home
ViralVibes
User1 Demo
User1 Demo
4 friends
Demo
Demo
Chat Room Code
644a628395cbdb6449f916df
Social Profiles
Twitter
Social Network
Linkedin
Network Platform
Friend List
User2 Demo
Demo
Chat Room Id
644a629e95cbdb6449f916e1
What's on your mind...
Add Video here
Image
Clip
Video
Audio
POST
Jane Doe
Utah, CA
Chat Room Id
643d70e8465805a900a79fb6
This is the last really long random description. This one is longer than the previous one.
Sign In with Google to Continue
SIGN IN WITH GOOGLE
Type here to search
GBP/INR +0.63%
ENG
21:13
30-04-2023


React App
localhost:3000/home
ViralVibes
User1 Demo
Friend List
User2 Demo
Demo
Chat Room Id
644a629e95cbdb6449f916e1
Jane Doe
Hacker
Chat Room Id
643d70e8465805a900a79fb6
Vinay Tomar
DEV
Chat Room Id
644a76b195cbdb6449f9183e
Steve Ralph
Degenerate
Chat Room Id
643d70e8465805a900a79fb3
7
5
Whatcha Doing
Korea, CA
Chat Room Id
643d70e8465805a900a79fb5
Another really long random description. This one is longer than the previous one.
Type here to search
GBP/INR +0.63%
ENG
21:13
30-04-2023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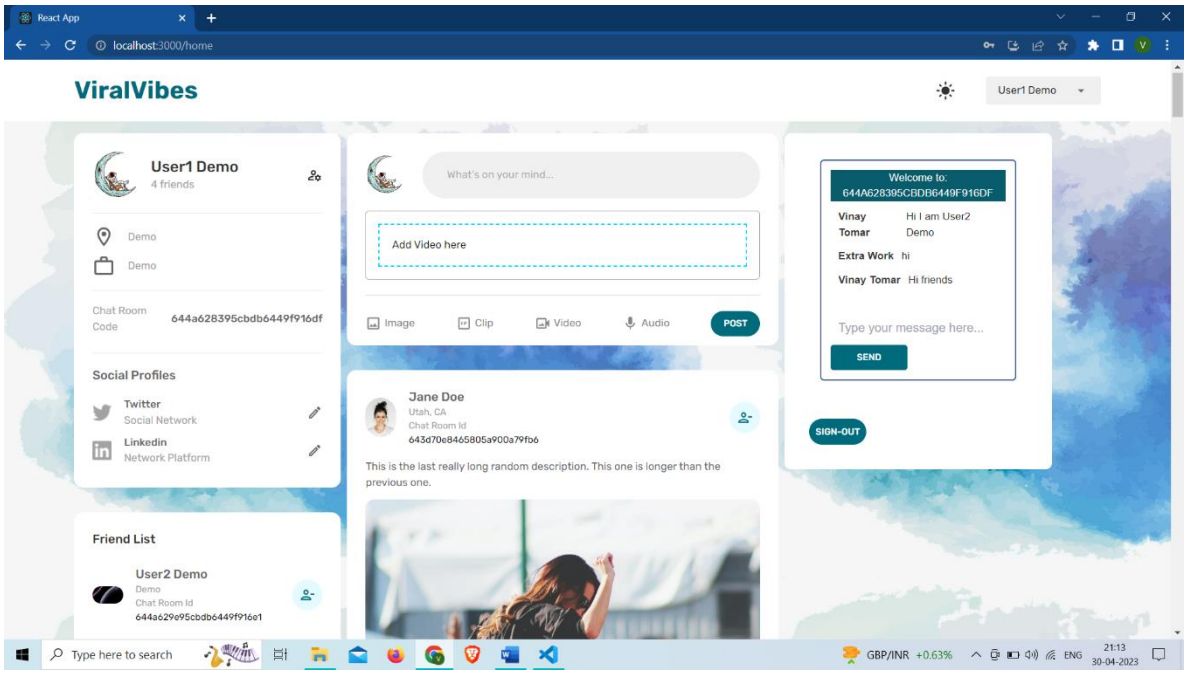
User1 Demo
User1 Demo
4 friends
Demo
Demo
Chat Room Code
644a628395cbdb6449f916df
Social Profiles
Twitter
Social Network
Linkedin
Network Platform
Friend List
User2 Demo
Demo
Chat Room Id
644a629e95cbdb6449f916e1
What's on your mind...
Add Video here
Image
Clip
Video
Audio
POST
Jane Doe
Utah, CA
Chat Room Id
643d70e8465805a900a79fb6
This is the last really long random description. This one is longer than the previous one.
Enter Room Name
395cbdb6449f916df
ENTER CHAT
SIGN-OUT
Type here to search
GBP/INR +0.63%
ENG
21:13
30-04-2023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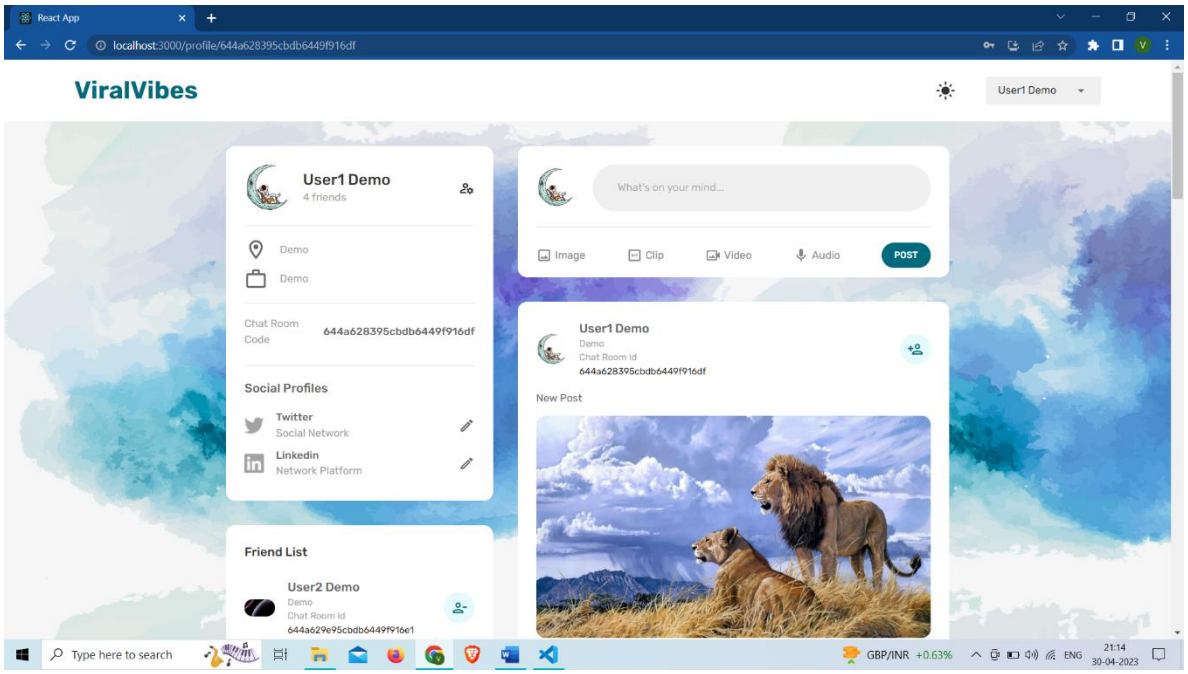
Social Network
Linkedin
Network Platform
Friend List
User2 Demo
Demo
Chat Room Id
644a629e95cbdb6449f916e1
What's on your mind...
Add Video here
Image
Clip
Video
Audio
POST
Jane Doe
Utah, CA
Chat Room Id
643d70e8465805a900a79fb6
This is the last really long random description. This one is longer than the previous one.
Welcome to:
644A628395CBDB6449F916DF
Vinay Tomar
Hi I am User2
Demo
Extra Work
hi
Vinay Tomar
Hi friends
Type your message here...
SEND
SIGN-OUT
Type here to search
GBP/INR +0.63%
ENG
21:13
30-04-2023


React App
localhost:3000/profile/644a628395cbdb6449f916df
ViralVibes
User1 Demo
User1 Demo
4 friends
Demo
Demo
Chat Room Code
644a628395cbdb6449f916df
Social Profiles
Twitter
Social Network
Linkedin
Network Platform
Friend List
User2 Demo
Demo
Chat Room Id
644a629e95cbdb6449f916e1
What's on your mind...
Image
Clip
Video
Audio
POST
User1 Demo
Demo
Chat Room Id
644a628395cbdb6449f916df
New Post
Type here to search
GBP/INR +0.63%
ENG
21:14
30-04-2023

9.REFERENCE

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Websites:

- https://developer.mozilla.org/en-US/
- https://v4.mui.com/
- https://www.npmjs.com/
- https://www.mongodb.com/

Faculty Guidelines:

Dr. Manoj Varshney

(Assistant Professor Dept. of CSE, GLA University, Mathura)

GitHub Repository link:

https://github.com/vinay320/Viral_Vibes.git