

Project Report
On
Social Media App

Submitted by

K.Ajay Kumar Reddy– R170378

Under the guidance of
S Shabana

Assistant Professor

Department of Computer Science and Engineering



Rajiv Gandhi University of Knowledge and Technologies(RGUKT)

Declaration

We, hereby declares that this report entitled “Hosting a Dynamic website using Reactjs,mongodb ” submitted by us under the guidance and supervision of S. Shabana is a bonafide work. We also declare that it has not been Submitted previously in part or in full to this university or other university or Institution for the award of any degree or diploma.

We will be solely responsible if any kind of plagiarism is found.

Place:Rk Valley

K.Ajay Kumar Reddy-R170378



**Rajiv Gandhi University of Knowledge Technologies
RK Valley, Kadapa (Dist), Andhra Pradesh, 516330**

CERTIFICATE

This is to certify that the project work titled “HOSTING A Social Media WEBSITE USING Reactjs, mongodb,nodejs is a bonafied project work submitted by Ajay kumar Reddy in the department of COMPUTER SCIENCE AND ENGINEERING in partial fulfillment of requirements for the award of degree of Bachelor of Technology in Computer science and engineering for the year 2022-2023 carried out the work under the supervision.

**GUIDE
S SHABANA**

**HEAD OF THE DEPARTMENT
N SATYANANDARAM**

Acknowledgement

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and whose constant guidance and encouragement crown all the efforts success.

I am extremely grateful to our respected Director, Prof. K. SANDHYA RANI for fostering an excellent academic climate in our institution.

I also express my sincere gratitude to our respected Head of the Department Mr. N SATYANANDARAM for his encouragement, overall guidance in viewing this project a good asset and effort in bringing out this project.

I would like to convey thanks to our guide at college Ms. S SHABANA for her guidance,encouragement, co-operation and kindness during the entire duration of the course and academics.

My sincere thanks to all the members who helped me directly and indirectly in the completion of project work. I express my profound gratitude to all our friends and family members for their encouragement.

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Abstract

Social media applications provide the opportunity for people to connect with others, as well as to record their various activities on a digital canvas that is for all to see. As such, skills and virtues are developed and displayed. Thereby, individual reputations unfold, and this can prompt deeper links between people who pursue selfless benefits. In effect, members of emerging online communities have an increased capacity to share ideas that are more for the common good than for personal gain, as well as determine which people should be invited to participate. As a direct result, what unfolds is a greater likelihood that evolving projects, and related outcomes, will address any number of issues and opportunities related to the public interest than would have been possible otherwise

Introduction

It allows users to upload photos or short videos from a mobile device, edit photos by applying filters, and then share either publicly or privately through the app or to other social media sites including Facebook, Flickr, and Twitter.

The vision of Ithis Social media app is it to “allow you to experience moments in your friends’ lives through pictures as they happen.”

Business owners use this application to engage other accounts through posts, comments and direct messages in addition to the option of sponsored ads.

Similar to Twitter, the more ‘followers’ an account reaches, the more exposure that respective account will have.

Scope

Social media facilitates the sharing of ideas and information through virtual networks. From Facebook and Instagram to Twitter and YouTube, social media covers a broad universe of apps and platforms that allow users to share content, interact online, and build communities. More than 4.7 billion people use social media, equal to roughly 60% of the world's population.

Today, social media messaging apps and platforms are the most commonly used sites worldwide. In early 2023, 94.8% of users accessed chat and messaging apps and websites, followed closely by social platforms, at 94.6% of users. Search engine sites were next, with 81.8% of users accessing them. Social media may take the form of video sharing, social gaming, professional business networks, virtual worlds, review platforms, and beyond.

People use various social media applications to network career opportunities, find others across the globe with like-minded interests, and share their views across a social network. Governments and politicians utilize social media to engage with constituents and voters.

Purpose

Social media allows individuals to keep in touch with friends and extended family. Some people will use various social media applications to network and find career opportunities, connect with people across the globe with like-minded interests, and share their own thoughts, personal updates, and insights online.

Social media has reshaped our lives, capturing more than 4.7 billion users worldwide and counting. Whether or not each platform resonates with you personally, it offers a gateway for people and brands to connect across different interests or communities. From a business marketing perspective, it provides a vital way to promote to a vast audience, target customers, and incentivize them to ultimately make a purchase across digital channels.

Require Specification

HTML:

HTML is a markup language that defines the structure of your content. HTML consists of a series of elements, which you use to enclose, or wrap, different parts of the content to make it appear a certain way, or act a certain way. The enclosing tags can make a word or image hyperlink to somewhere else, can italicize words, can make the font bigger or smaller, and so on.

CSS:-

Cascading Style Sheets is a stylesheet language used to describe the presentation of a document written in HTML or XML . It describes how elements should be rendered on screen, on paper, in speech, or on other media. It helps Web developers create a uniform look across several pages of a Web site. Instead of defining the style of each table and each block of text within a page's HTML, commonly used styles need to be defined only once in a CSS document. It can be used to define the cell padding of table cells, the style, thickness, and color of a table's border, and the padding around images or other objects. This is why most Web pages today incorporate cascading style sheets.

Java Script:-

JavaScript is a scripting or programming language that allows you to implement complex features on web pages every time a web page does more than just sit there and display static information for you to look at displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes etc., It is the third layer of the layer cake of standard web technologies, two of which HTML and CSS. A very common use of JavaScript is to dynamically modify HTML and CSS to update a user interface, via the Document Object Model API .

HTTP:-

HTTP is a protocol for fetching resources such as HTML documents. It is the foundation of any data exchange on the Web and it is a client-server protocol, which means requests are initiated by the recipient, usually the Web browser. A complete document is reconstructed from the different sub-documents fetched, for instance, text, layout description, images, videos, scripts, and more. Clients and servers communicate by exchanging individual messages.

Mongodb:-

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server Side Public License which is deemed non-free by several distributions.

ReactJs:-

The React.js framework is an open-source JavaScript framework and library developed by Facebook. It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript.

Analysis

Hosting a dynamic website using React Js, Mongo DB offers numerous advantages for users.

The scalability of app infrastructure allows for easy scaling up or down of the website infrastructure as needed, ensuring that it can handle traffic spikes and fluctuations.

The security provided by MongoDB helps protect sensitive data and applications from external threats, making it an ideal solution for users that handle sensitive information.

Basically it provides a website like instagram where we can add photos, videos and some posts and comments and also edit the profile settings.

Likewise instagram, it also helps to access to various sources using MongoDB we can be able to save details for next purpose.

Creating a sign up page

Creating a sign up page for the website named sociomedia ,here we can register our details to the website.By using mongodb and nodejs we are able to save the details of the users in atlas mongodb.So that next time if a user comes again , user can easily login to account without registering again in to the account.

```
import { BrowserRouter, Navigate, Routes, Route } from "react-router-dom";
import HomePage from "scenes/homePage";function App() {
  const mode = useSelector((state) => state.mode);
  const theme = useMemo(() => createTheme(themeSettings(mode)), [mode]);
  const isAuthenticated = Boolean(useSelector((state) => state.token));
  return (
    <div className="app">
      <BrowserRouter>
        <ThemeProvider theme={theme}>
          <CssBaseline />
          <Routes>
            <Route path="/" element={<LoginPage />} />
            <Route
              path="/home"
              element={isAuthenticated ? <HomePage /> : <Navigate to="/" />}
            />
            <Route
              path="/profile/:userId"
              element={isAuthenticated ? <ProfilePage /> : <Navigate to="/" />}
            />
          </Routes>
        </ThemeProvider>
      </BrowserRouter>
    </div>
  );
}
export default App;
import
import
import
import
import
import
LoginPage from "scenes/loginPage";
```

```
ProfilePage from "scenes/profilePage"; import { useMemo } from "react";
```

Creating servers

```
import express from "express";
import bodyParser from "body-parser";
import mongoose from "mongoose";
import cors from "cors";
import dotenv from "dotenv";
import multer from "multer";
import helmet from "helmet";
import morgan from "morgan";
import path from "path";
import { fileURLToPath } from "url";
import authRoutes from "./routes/auth.js";
import userRoutes from "./routes/users.js";
import postRoutes from "./routes/posts.js";
import { register } from "./controllers/auth.js";
import { createPost } from "./controllers/posts.js";
import { verifyToken } from "./middleware/auth.js";
import User from "./models/User.js";
import Post from "./models/Post.js";
import { users, posts } from "./data/index.js";
/* CONFIGURATIONS */
const __filename = fileURLToPath(import.meta.url);
const __dirname = path.dirname(__filename);
dotenv.config();
const app = express();
app.use(express.json());
app.use(helmet());
app.use(helmet.crossOriginResourcePolicy({ policy: "cross-origin" }));
app.use(morgan("common"));
app.use(bodyParser.json({ limit: "30mb", extended: true }));
app.use(bodyParser.urlencoded({ limit: "30mb", extended: true }));
app.use(cors());
app.use("/assets", express.static(path.join(__dirname, "public/assets")));
/* FILE STORAGE */
const storage = multer.diskStorage({
  destination: function (req, file, cb) {
    cb(null, "public/assets");
  },
  filename: function (req, file, cb) {
    cb(null, file.originalname);
  },
});
const upload = multer({ storage });
```

```

    ROUTES WITH FILES */
pp.post("/auth/register", upload.single("picture"), register);
pp.post("/posts", verifyToken, upload.single("picture"), createPost);
* ROUTES */
pp.use("/auth", authRoutes);
pp.use("/users", userRoutes);
pp.use("/posts", postRoutes);
* MONGOOSE SETUP */
const PORT = process.env.PORT || 6001;
mongoose
  .connect(process.env.MONGO_URL, {
    useNewUrlParser: true,
    useUnifiedTopology: true,
  })
  .then(() => {
    pp.listen(PORT, () => console.log(`Server Port: ${PORT}`));
    * ADD DATA ONE TIME */
    / User.insertMany(users);
    / Post.insertMany(posts);
  })
  .catch((error) => console.log(`${error} did not connect`));

```

Combining front and back end

```
{
  name ": "server",
  version": "1.0.0",
  description": "",
  main": "index.js",
  type": "module",
  dependencies": {
    bcrypt": "^5.1.0",
    body-parser": "^1.20.1",
    cors": "^2.8.5",
    "dotenv": "^16.0.3",
    "express": "^4.18.2",
    "gridfs-stream": "^1.1.1",
    "helmet": "^6.0.0",
    "jsonwebtoken": "^8.5.1",
    "mongoose": "^6.7.0",
    "morgan": "^1.10.0",
    "multer": "^1.4.5-lts.1",
    "multer-gridfs-storage": "^5.0.2"
  },
  "devDependencies": {},
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node index.js"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

creating server with mongodb

```
MONGO_URL="mongodb+srv://poorna_mongo:POORNA123123@cluster0.kbqqjzx.mongodb.net/ SocailMeida_Yout?retryWrites=true&w=majority"
PORT=3001
JWT_SECRET="superset"
```

The screenshot displays the MongoDB Atlas web interface in a Firefox browser window. The address bar shows the URL: `https://cloud.mongodb.com/v2/640b563b175cae06f28b7592#/metrics/replicaSet/640b5704622c4`. The interface includes a top navigation bar with the Atlas logo, organization name 'Poorna's Org...', and links for 'Access Manager' and 'Billing'. Below this is a sidebar with navigation options like 'Project 0', 'Data Services', 'App Services', and 'Charts'. The main content area is titled 'SocailMeida_Yout.posts' and shows database statistics: 'STORAGE SIZE: 36KB', 'LOGICAL DATA SIZE: 115KB', 'TOTAL DOCUMENTS: 4', and 'INDEXES TOTAL SIZE: 36KB'. A search bar is present with the text 'Type a query: { field: 'value' }'. Below the search bar, the 'QUERY RESULTS: 1-4 OF 4' are displayed, showing a single document with fields: `_id`, `userId`, `firstName`, `lastName`, `location`, `description`, `userPicturePath`, `likes`, and `comments`. The document content is as follows:

```
{
  "_id": ObjectId('64109b22c11167ab5eb355dc'),
  "userId": "64109afcc11167ab5eb355d0",
  "firstName": "ajay",
  "lastName": "asdf",
  "location": "zxcv",
  "description": "gfhgjhnbv",
  "userPicturePath": "ini.jpeg",
  "likes": Object,
  "comments": Array
}
```

The interface also features a bottom taskbar with various application icons, including Firefox, a file manager, a terminal, and a web browser.

Sign Up

Activities Google Chrome Mar 24 10:57

React App x +

about:blank

Sociopedia

Welcome to Sociopedia, the Social Media for Sociopaths!

First Name

Last Name

Location

Occupation

Add Picture Here

Email

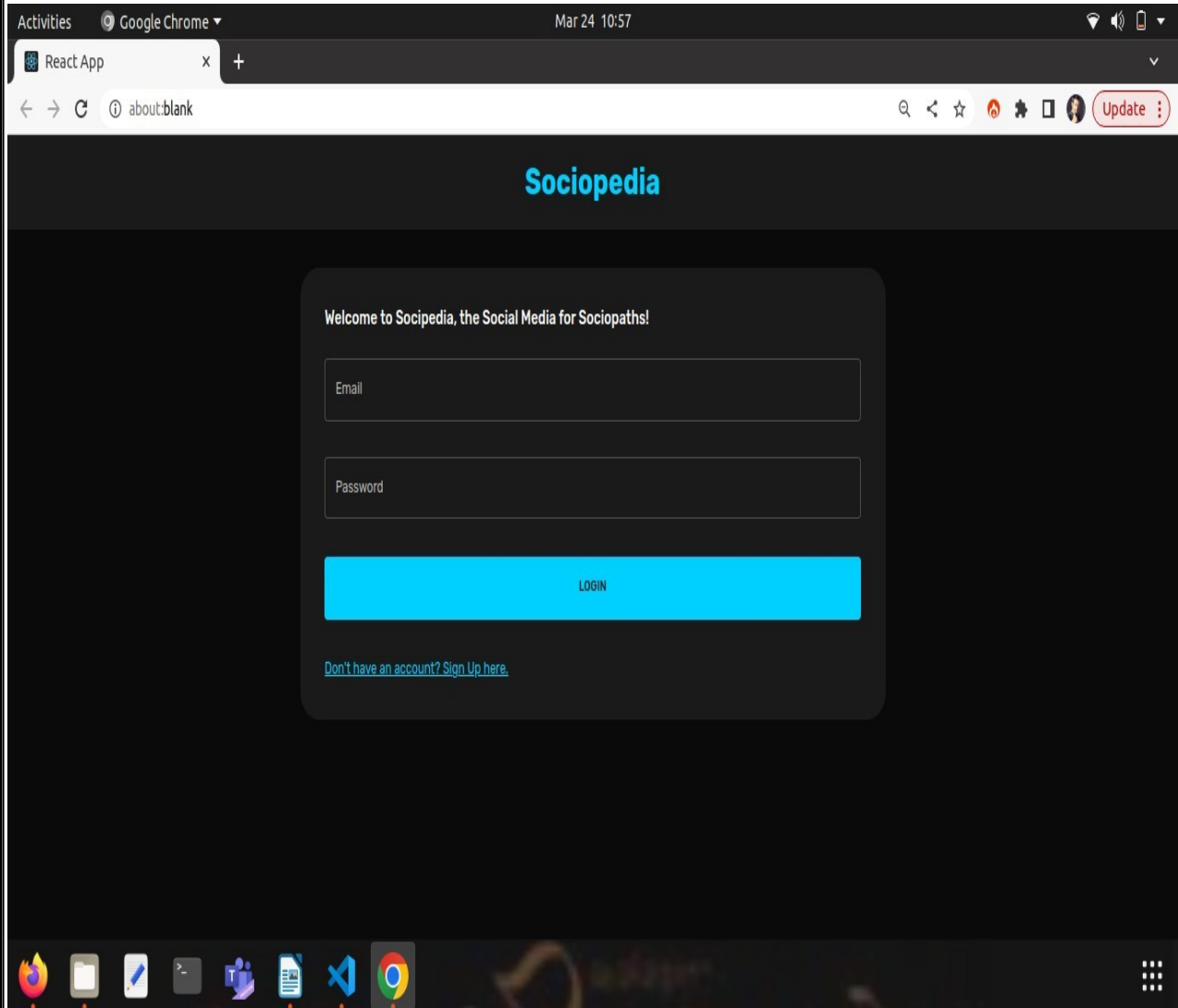
Password

REGISTER

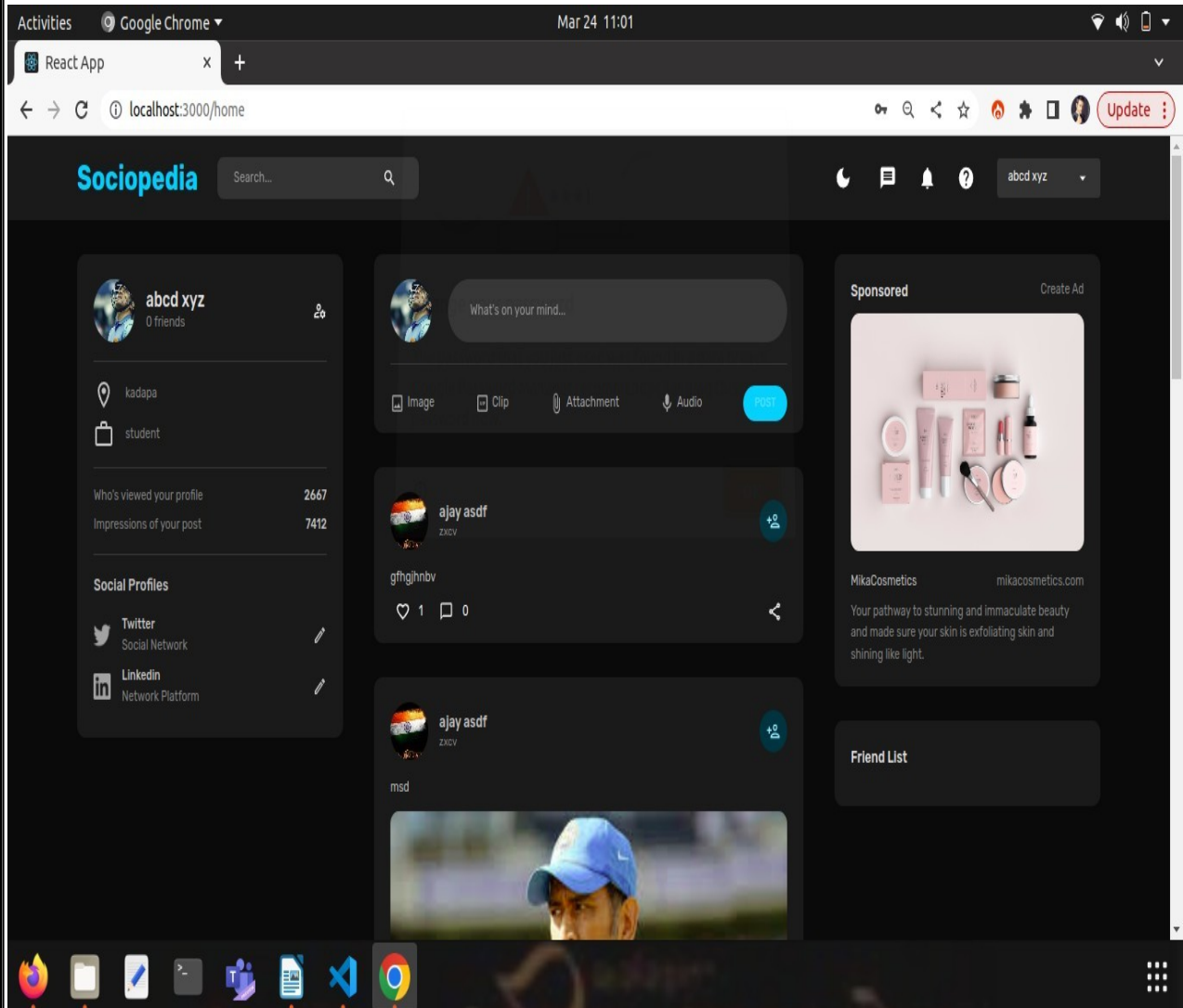
Update

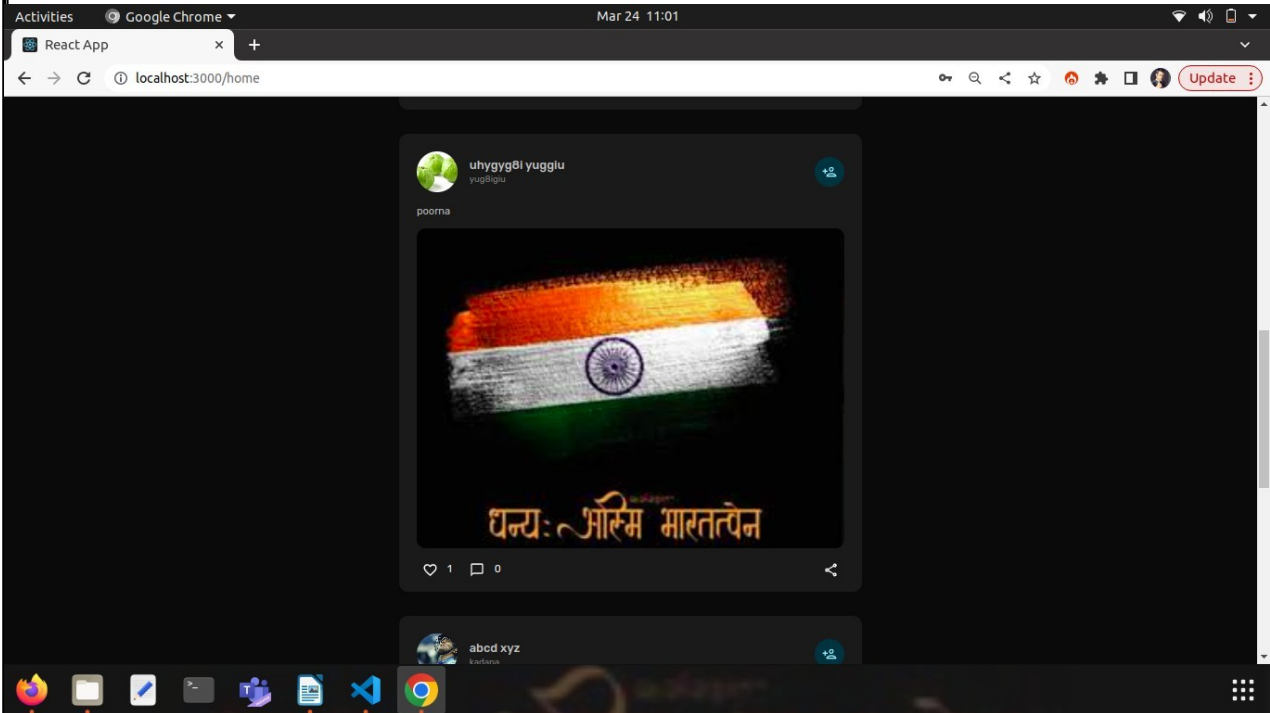
Taskbar icons: Firefox, Files, Code Editor, Terminal, Teams, Word, VS Code, Chrome

Login



Hosting website outside the remote server.





Conclusion

In conclusion, hosting a dynamic website using mongodb and nodejs provides numerous benefits for socail media application. The scalability, security, customization, high availability, and infrastructure make it an ideal solution for hosting dynamic websites. Like other media apps it also provides us a complete security for the data and it is encrypted.

The vision of Ithis Social media app is it to “allow you to experience moments in your friends’ lives through pictures as they happen.”

References

For HTML

- https://www.w3schools.com/html/html_intro.asp
- <https://www.tutorialspoint.com/html/index.html>

For CSS

- https://www.w3schools.com/css/css_intro.asp

For Java Script

- https://www.tutorialspoint.com/javascript/javascript_overview.html

For Monogdb

<https://www.w3schools.com/mongodb/>

For ReactJs

<https://www.w3schools.com/REACT/DEFAULT.ASP>

*****THANKYOU*****

