Compsoft Technologies

Bengaluru, Karnataka, India

AN
INTERNSHIP REPORT
ON

"Quora for EV with
Price Analysis"

**Bachelor of Engineering
In
Information Science and Engineering**

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**COLLEGE – JSS Academy of Technical Education, Bengaluru
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ABOUT THE COMPANY

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OVERVIEW OF THE PROJECT

Project Name: Quora for EV with Price Analysis

Team Members: Anushree M Rayas

Dhanya T P

This project is based on Web Development And its Applications. The main objective of this project is to learn the implementation of HTML, CSS and JavaScript. Full Stack Grequo is built using ReactJS and. used redux as state management tool and firebase as backend. The styling of the webapp is done using CSS.

This webapp is about the Price Analysis of Electric Vehicles developed in the same manner as Quora.

An **electric vehicle** (**EV**) is a vehicle that uses one or more electric motors for propulsion. It can be powered by a collector system, with electricity from extravehicular sources, or it can be powered autonomously by a battery (sometimes charged by solar panels, or by converting fuel to electricity using fuel cells or a generator). EVs include, but are not limited to, road and rail vehicles, surface and underwater vessels, electric aircraft and electric spacecraft.

EVs first came into existence in the mid-19th century, when electricity was among the preferred methods for motor vehicle propulsion, providing a level of comfort and ease of operation that could not be achieved by the gasoline cars of the time. Internal combustion engines were the dominant propulsion method for cars and trucks for about 100 years, but electric power remained commonplace in other vehicle types, such as trains and smaller vehicles of all types.

In the 21st century, EVs have seen a resurgence due to technological developments, and an increased focus on renewable energy and the potential reduction of transportation's impact on climate change and other environmental issues. Project Drawdown describes electric vehicles as one of the 100 best contemporary solutions for addressing climate change.[

ABOUT EV

.Overview

An EV is a shortened acronym for an electric vehicle. EVs are vehicles that are either partially or fully powered on electric power.

Electric vehicles have low running costs as they have less moving parts for maintaining and also very environmentally friendly as they use little or no fossil fuels (petrol or diesel). While some EVs used lead acid or nickel metal hydride batteries, the standard for modern battery electric vehicles is now considered to be lithium ion batteries as they have a greater longevity and are excellent at retaining energy, with a self discharge rate of just 5% per month. Despite this improved efficiency, there are still challenges with these batteries as they can experience thermal runaway, which have, for example, caused fires or explosions in the Tesla model S, although efforts have been made to improve the safety of these batteries.

It can cost as little as £7.80 to fully charge an electric car from home and can even be free in public car parks.

There are **two main types** of electric vehicles (EV); fully electric and plug-in hybrids:

Battery Electric Vehicles (BEV)

Compared to an internal combustion engine, battery powered electric vehicles have approximately 99% fewer moving parts that need maintenance.

Advantages of a BEV:

- Creates very little noise
- No exhaust, spark plugs, clutch or gears
- Doesn't burn fossil fuels, instead uses rechargeable batteries

BEVs can be charged at home overnight, providing enough range for average journeys. However, longer journeys or those that require a lot of hill climbs may mean that the fuel cells require charging before you reach your destination, although regenerative braking or driving downhill can help mitigate against this by charging the battery packs.

The typical charging time for an electric car can range from 30 minutes and up to more than 12 hours. This all depends on the speed of the charging station and the size of the battery.

In the real world, range is one of the biggest concerns for electric vehicles, but is something that is being addressed by industry.

Plug-in Hybrid Electric Vehicles (PHEV)

Rather than relying solely on an electric motor, hybrid electric vehicles offer a mixture of battery and petrol (or diesel) power. This makes them better for travelling long distances as you can switch to traditional fuels rather than having to find charge points to top up the battery.

Of course, the same disadvantages that apply to combustion engine vehicles also apply to PHEVs, such as the need for more maintenance, engine noise, emissions and the cost of petrol. PHEVs also have smaller battery packs, which means a reduced range.

EV Market Growth, Trends and Statistics

The global electric vehicle market size is projected to grow from 4,093 thousand units in 2021 to 34,756 thousand units by 2030, at a CAGR of 26.8%. Factors such as growing demand for low emission commuting and governments supporting long range, zero emission vehicles through subsidies & tax rebates have compelled the manufacturers to provide electric vehicles around the world. This has led to a growing demand for electric vehicles in the market. Countries around the world have set up targets for emission reductions according to their own capacity.

Key Market Players

The Electric Vehicle Market is dominated by established players such as Tesla (US), BYD (China), Volkswagen AG (Germany), BMW Group (Germany) and Nissan Motors (Japan). The market ranking has been derived by considering a certain percentage of the segmental revenue for each of the companies mentioned above. These companies also offer extensive products and solutions for the automotive industry. These companies have strong distribution networks at the global level, and they invest heavily in R&D to develop new products.

Scope of the Report

Report Metric	Details
Market size available for years	2017–2030
Base year considered	2020
Forecast period	2021-2030
Forecast units	Volume (Thousand Units)
Segments covered	Components, Vehicle Type, Vehicle Class, Top Speed, Vehicle Drive Type, EV Charging Point Type, V2G, Propulsion and Region.

P1

Geographies covered	Asia Pacific, Europe, North America, Middle East and Africa
Companies Covered	Tesla (US), BYD (China), Volkswagen AG (Germany), BMW Group (Germany) and Nissan Motors (Japan). A total of 30 major company profiles covered and provided.

This research report categorizes the electric vehicle market based on Components, Vehicle Type, Vehicle Class, Top Speed, Vehicle Drive Type, EV Charging Point Type, V2G, Propulsion and Region.

Recent Developments

- In April 2021, Toyota launched the new LS and Mirai models in japan which come with advanced driving assist technology.
- In April 2021, BYD launched four new electric vehicle models equipped with Blade batteries in Chongqing. The new vehicle models, Tang EV, Qin Plus EV, Song Plus EV and E2 2021 come with advanced battery safety features.
- In April 2021, Volkswagen unveiled the 7 seater EV ID.6 Crozz and ID.6 X produced along with FAW and SAIC in China. The vehicles will be sold only in China. It comes in two battery versions, 58 kWh and 77 kWh and comes in four powertrain configurations.
- In March 2021, Volvo showcased its new C40 Recharge model. The vehicle is designed as a pure electric car and has most features similar to its XC60 model.
- In December 2020, Nissan announced 2021 Leaf model in US. The vehicle comes with a choice of battery between 40 kWh and 62 kWh. The mileage ranges between 149 miles and 226 miles per charge.
- In July 2020, BYD launched its Han which comes with blade battery and is available in BEV and PHEV versions. It comes with two battery options, 65 kWh option for 314 miles and 77kWh option for 342 miles range. Its PHEV comes with a 13 kWh battery and a 2.0 L gasoline engine and 180 kWh electric motor.

P1

- In March 2020, BMW launched the 2nd generation 330e and 330e xDrive in the North American market. The vehicle comes with a 12 kWh battery and an all-electric range of 20-22 miles.
- In November 2019, BYD launched its e3 electric sedan in China. It comes with two battery options, 35.2 kWh and 47.3 kWh and a single 70 kW electric motor. The vehicle has a range of around 252 miles.
- In May 2019, Hyundai group showcased its new Ioniq electric version with an increased battery of 38.3 kWh (from 28kWh) and a larger range.

TOOLS USED

Software Requirements

- Visual Studio Code2019.
- Google Chrome or Microsoft Edge of latestversion.
- Front End: HTML,CSS,JS(optional)
- Linux 7.1 or Windows XP/7/8/10OS or Mac OS

Hardware Requirements

- Pentium 200-MHz computer with a minimum of 64 MB of RAM (128 MB of RAM recommended).
- Monitor with a refresh rate of at least 40Hz for a smooth GUI experience(optional).

IMPLEMENTATION

Source Code(JS & CSS):

➢ Login Page (JS)

```js
import React, { useState } from "react";
import "./Login.css";
import ArrowForwardIosIcon from "@material-ui/icons/ArrowForwardIos";
import { auth, provider } from "../../firebase";

function Login() {
  const [email, setEmail] = useState("");
  const [password, setPassword] = useState("");

  const signIn = () => {
    auth.signInWithPopup(provider).catch((e) => {
      alert(e.message);
    });
  };

  const handleSignIn = (e) => {
    e.preventDefault();

    auth
      .signInWithEmailAndPassword(email, password)
      .then((auth) => {
        console.log(auth);
      })
      .catch((e) => alert(e.message));
  };

  const registerSignIn = (e) => {
    e.preventDefault();

    auth
      .createUserWithEmailAndPassword(email, password)
      .then((auth) => {
        if (auth) {
```

```
          console.log(auth);
        }
      })
      .catch((e) => alert(e.message));
  };
  return (
    <div className="login">
      <div className="login__container">
        <div className="login__logo">
          <h1>GREQUO</h1>
          <img
            alt=""
          />
        </div>
        <div className="login__desc">
          <p>A Place to Share knowledge about EVs and understand the World bett
er.</p>



        </div>
        <div className="login__auth">
          <div className="login__authOptions">
            <div className="login__authOption">
              <img
                className="login__googleAuth"
                src="https://media-public.canva.com/MADnBiAubGA/3/screen.svg"
                alt=""
              />
              <p onClick={signIn}>Continue With Google</p>
            </div>
            <div className="login__authOption">
              <img
                className="login__googleAuth"
                src="https://1000logos.net/wp-content/uploads/2016/11/Facebook-
logo-500x350.png"
                alt=""
              />
              <span>Continue With Facebook</span>
```

```
        </div>
        <div className="login__authDesc">
          <p>
            <span style={{ color: "blue", cursor: "pointer" }}>
              Sign Up With Email
            </span>
            . By continuing you indicate that you have read and agree to
            Grequo's
            <span style={{ color: "blue", cursor: "pointer" }}>
              Terms of Service{" "}
            </span>
            and{" "}
            <span style={{ color: "blue", cursor: "pointer" }}>
              Privacy Policy
            </span>
            .
          </p>
        </div>
      </div>
      <div className="login__emailPass">
        <div className="login__label">
          <h4>Login</h4>
        </div>
        <div className="login__inputFields">
          <div className="login__inputField">
            <input
              value={email}
              onChange={(e) => setEmail(e.target.value)}
              type="text"
              placeholder="Email"
            />
          </div>
          <div className="login__inputField">
            <input
              value={password}
              onChange={(e) => setPassword(e.target.value)}
              type="password"
              placeholder="Password"
            />
```

```jsx
              </div>
            </div>
            <div className="login__forgButt">
              <small>Forgot Password?</small>
              <button onClick={handleSignIn}>Login</button>
            </div>
            <button onClick={registerSignIn}>Register</button>
          </div>
        </div>
        <div className="login__lang">
          <p>□□□□□</p>
          <ArrowForwardIosIcon fontSize="small" />
        </div>
        <div className="login__footer">
          <p>About</p>
          <p>Languages</p>
          <p>Careers</p>
          <p>Businesses</p>
          <p>Privacy</p>
          <p>Terms</p>
          <p>Contact</p>
          <p>&copy; Grequo Inc. 2021</p>
        </div>
      </div>
    </div>
  );
}

export default Login;
```

➢ LoginPage (CSS)

```css
@import url("https://fonts.googleapis.com/css2?family=Cedarville+Cursive&display=swap");

.login {
  display: flex;
  align-items: center;
  justify-content: center;
  height: 100vh;
  background: url("https://images.theconversation.com/files/295986/original/file-20191008-128686-1uh5btb.jpg?ixlib=rb-1.1.0&q=45&auto=format&w=496&fit=clip");
}

.login__container {
  display: flex;
  flex-direction: column;
  padding: 20px;
  width: 700px;
  background-color: rgb(255, 255, 255);
  border-radius: 10px;
}

.login__logo {
  display: flex;
  justify-content: center;
}

.login__logo > h1 {
    font-size: 60px;
    padding: 10px;
    height: 10px;
    margin-right: 20px;
    color: rgb(168, 9, 9);
}

.login__desc {
```

```css
  display: flex;
  flex-direction: column;
  justify-content: center;
  margin-top: 50px;
}


.login__desc > p {
    padding: 20px;
  color: gray;
  text-align: center;
  font-weight: 500;
  font-size: medium;
}

.login__auth {
  display: flex;
  margin-top: 50px;
}

.login__authOptions {
  display: flex;
  flex: 0.5;
  flex-direction: column;
  padding: 20px;
  border-right: 1px solid lightgray;
}

.login__authOption {
  display: flex;
  align-items: center;
  padding: 7px;
  margin-bottom: 15px;
  border: 1px solid lightgray;
  border-radius: 5px;
  cursor: pointer;
}

.login__authOption:hover {
```

```css
  background-color: rgb(226, 226, 226);
}


.login__authOption > img {
  height: 30px;
  object-fit: contain;
}


.login__authOption > p {
  margin-left: 11px;
}


.login__authDesc {
  display: flex;
  align-items: center;
  padding: 7px;
  margin-bottom: 15px;
}
.login__authDesc > p {
  font-size: small;
  color: gray;
}


.login__emailPass {
  display: flex;
  flex-direction: column;
  justify-content: center;
  padding: 20px;
  flex: 0.5;
  margin-left: 20px;
}


.login__label > h4 {
  padding: 5px;
}


.login__inputFields {
  display: flex;
  flex-direction: column;
```

```css
  padding: 5px;
}


.login__inputField {
  padding: 5px;
}


.login__inputField > input {
  padding: 10px;
  width: 100%;
  outline: none;
  border: none;
  background-color: rgb(236, 236, 236);
}


.login__forgButt {
  padding-left: 10px;
  display: flex;
  align-items: center;
  justify-content: space-between;
}


.login__forgButt > small {
    color: gray;
    cursor: pointer;
  }


  .login__forgButt > small:hover {
    color: blue;
    text-decoration: underline;
  }


  .login__forgButt > button {
    padding: 9px;
    border-radius: 5px;
    border: none;
    outline: none;
    background-color: blue;
    color: white;
```

```css
  font-weight: bold;
  font-size: 15px;
  cursor: pointer;
}

.login__emailPass > button {
  padding: 9px;
  border-radius: 5px;
  border: none;
  outline: none;
  background-color: blue;
  color: white;
  font-weight: bold;
  font-size: 15px;
  cursor: pointer;
  margin-top: 10px;
}

.login__lang {
  display: flex;
  align-items: center;
  justify-content: center;
  border-top: 1px solid lightgray;
  border-bottom: 1px solid lightgray;
  margin-top: 30px;
  padding: 10px;
}

.login__lang > p {
  color: gray;
  margin-right: 5px;
  cursor: pointer;
  font-size: 13px;
}

.login__lang > p:hover {
  color: gray;
  margin-right: 5px;
  text-decoration: underline;
```

```css
}

.login__lang > .MuiSvgIcon-root {
  color: gray;
}

.login__footer {
  padding-top: 10px;
  display: flex;
  align-items: center;
  justify-content: space-evenly;
}

.login__footer > p {
  color: gray;
  font-size: small;
  cursor: pointer;
}

.login__footer > p:hover {
  text-decoration: underline;
}
```

➢ Grequo Page (JS)

```
import React from "react";
import "../css/Grequo.css";
import Feed from "./Feed";
import Navbar from "./Navbar";
import Sidebar from "./Sidebar";
import Widget from "./Widget";

function Grequo() {
    return (
        <div className = "grequo">
            <Navbar />
            <div className = "grequo__content">
                <Sidebar />
                <Feed />
                <Widget />
            </div>
        </div>
    );
}

export default Grequo;
```

➢ Grequo Page (CSS)

```css
.grequoBox {
    display: flex;
    flex-direction: column;
    padding: 10px;
    border: 1px solid lightgray;
    background-color: white;
    border-radius: 5px;
    cursor: pointer;
}

.grequoBox:hover {
    border: 1px solid gray;
}

.grequoBox__info {
    display: flex;
    align-items: center;
}

.grequoBox__info > h5{
    color: rgb(129, 129, 129);
    font-weight: 300;
    margin-left: 10px;
}

.grequoBox__grequo {
    display: flex;
    margin-top: 8px;
}

.grequoBox__grequo > p {
    color: gray;
    font-weight: bold;
    font-size: large;
}
```

➢ **Navigation bar (JS)**

```js
import React, { useState } from "react";
import HomeIcon from "@material-ui/icons/Home";
import FeaturedPlayListOutlinedIcon from "@material-
ui/icons/FeaturedPlayListOutlined";
import AssignmentTurnedInOutlinedIcon from "@material-
ui/icons/AssignmentTurnedInOutlined";
import PeopleAltOutlinedIcon from "@material-ui/icons/PeopleAltOutlined";
import NotificationsOutlinedIcon from "@material-
ui/icons/NotificationsOutlined";
import SearchIcon from "@material-ui/icons/Search";
import LanguageIcon from "@material-ui/icons/Language";
import { Avatar, Button, Input } from "@material-ui/core";
import '../css/Navbar.css';
import { useSelector } from "react-redux";
import { selectUser } from "../features/userSlice";
import db, { auth } from "../firebase";
import Modal from "react-modal";
import { ExpandMore } from "@material-ui/icons";
import LinkIcon from "@material-ui/icons/Link";
import firebase from "firebase/compat/app";
import "firebase/compat/auth"
import "firebase/compat/firestore"
import Contact from "./Contact";


Modal.setAppElement("#root");

function Navbar() {
  const user = useSelector(selectUser);
  const [openModal, setOpenModal] = useState(false);
  const [input, setInput] = useState("");
  const [inputUrl, setInputUrl] = useState("");

  const handleQuestion = (e) => {
    e.preventDefault();
```

```
      setOpenModal(false);


    db.collection("questions").add({
      user: user,
      question: input,
      imageUrl: inputUrl,
      timestamp: firebase.firestore.FieldValue.serverTimestamp(),
    });



  setInput("");
  setInputUrl("");
};


return (
  <div className="gHeader">
    <div className="gHeader__logo">
      <h1>GREQUO</h1>
    </div>
    <div className="Navbar"></div>
    <button className="Navbar" onClick={ <Contact />}>Contact Us (at bottom)<
/button>


    <div className="gHeader__icons">
      <div className="gHeader__icon">
        <HomeIcon />
      </div>
      <div className="gHeader__icon">
        <FeaturedPlayListOutlinedIcon />
      </div>
      <div className="gHeader__icon">
        <AssignmentTurnedInOutlinedIcon />
      </div>
      <div className="gHeader__icon">
        <PeopleAltOutlinedIcon />
      </div>
      <div className="gHeader__icon">
```

```jsx
            <NotificationsOutlinedIcon />
          </div>
        </div>
        <div className="gHeader__input">
          <SearchIcon />
          <input type="text" placeholder="Search Grequo" />
        </div>
        <div className="gHeader__Rem">
          <div className="gHeader__avatar">
            <Avatar
              onClick={() => auth.signOut()}
              className="Avatar"
              src={
                user.photo
                  ? user.photo
                  : "https://images-platform.99static.com//_QXV_u2KU7-
ihGjWZVHQb5d-yVM=/238x1326:821x1909/fit-in/500x500/99designs-contests-
attachments/119/119362/attachment_119362573"
              }
            />
          </div>
          <LanguageIcon />
          <Button onClick={() => setOpenModal(true)}>Add Question</Button>
          <Modal
            isOpen={openModal}
            onRequestClose={() => setOpenModal(false)}
            shouldCloseOnOverlayClick={false}
            style={{
              overlay: {
                width: 700,
                height: 600,
                backgroundColor: "rgba(0,0,0,0.8)",
                zIndex: "1000",
                top: "50%",
                left: "50%",
                marginTop: "-300px",
                marginLeft: "-350px",
              },
            }}
```

```
        >
          <div className="modal__title">
            <h5>Add Question</h5>
            <h5>Share Link</h5>
          </div>
          <div className="modal__info">
            <Avatar
              className="avatar"
              src={
                user.photo
                  ? user.photo
                  : "https://images-platform.99static.com//_QXV_u2KU7-
ihGjWZVHQb5d-yVM=/238x1326:821x1909/fit-in/500x500/99designs-contests-
attachments/119/119362/attachment_119362573"
              }
            />
            <p>{user.disPlayName ? user.disPlayName : user.email} asked</p>
            <div className="modal__scope">
              <PeopleAltOutlinedIcon />
              <p>Public</p>
              <ExpandMore />
            </div>
          </div>
          <div className="modal__Field">
            <Input
              value={input}
              onChange={(e) => setInput(e.target.value)}
              type="text"
              placeholder="Start your question with 'What', 'How', 'Why', etc.
"
            />
            <div className="modal__fieldLink">
              <LinkIcon />
              <input
                value={inputUrl}
                onChange={(e) => setInputUrl(e.target.value)}
                type="text"
                placeholder="Optional: inclue a link that gives context"
              ></input>
```

```
          </div>
        </div>
        <div className="modal__buttons">
          <button className="cancle" onClick={() => setOpenModal(false)}>
            Cancel
          </button>
          <button type="sumbit" onClick={handleQuestion} className="add">
            Add Question
          </button>
        </div>
      </Modal>
    </div>
  </div>
  );
}

export default Navbar;
```

➢ **Navigation bar (CSS)**

```css
.gHeader {
    display: flex;
    justify-content: center;
    align-items: center;
    padding: 1px;
    background-color: white;
    width: 100%;

    position: sticky;
    z-index: 1000;
    top: 0;
    box-shadow: 0px 5px 8px -9px rgba(0, 0, 0, 0.5);
}


.gHeader__logo > h1 {
  padding-bottom: 20px;
  height: 30px;
  margin-right: 20px;
  color: rgb(168, 9, 9);
  padding-bottom: 50px;
}

.gHeader__icons {
  display: flex;
  align-items: center;
  cursor: pointer;
}

.gHeader__icons > .active > .MuiSvgIcon-root {
  fill: #8f1f1b;
}

.gHeader__icon > .MuiSvgIcon-root {
  font-size: xx-large;
```

```css
  background-color: white;
  padding: 5px 20px;
  color: gray;
}


.gHeader__icon > .MuiSvgIcon-root:hover {
  background-color: rgba(233, 233, 233, 0.5);
  border-radius: 10px;
  color: #b92b27;
}


.gHeader__input {
  display: flex;
  align-items: center;
  border: 1px solid lightgray;
  padding: 5px;
  border-radius: 5px;
  margin-left: 5px;
}


.gHeader__input > input {
  background-color: transparent;
  outline: none;
  border: none;
  color: rgb(49, 49, 49);
}


.gHeader__input > .MuiSvgIcon-root {
  color: gray;
}


.gHeader__avatar {
  cursor: pointer;
}
.gHeader__Rem {
  display: flex;
  align-items: center;
  margin-left: 25px;
}
```

```css
.gHeader__Rem > .MuiSvgIcon-root {
  font-size: xx-large;
  color: gray;
  margin-left: 25px;
  cursor: pointer;
}
.gHeader__Rem > .MuiSvgIcon-root:hover {
  color: #b92b27;
}

.gHeader__Rem > .MuiButton-root {
  color: white;
  background: #b92b27;
  text-transform: inherit;
  border-radius: 20px;
  margin-left: 25px;
}

.gHeader__Rem > .MuiButton-root:hover {
  color: #ffffff;
  background: #8f1f1b;
}

.modal__title {
  display: flex;
  align-items: center;
  margin-bottom: 5px;
  border-bottom: 1px solid rgba(187, 187, 187, 0.5);
}

.modal__title > h5 {
  color: gray;
  font-size: 20px;
  cursor: pointer;
  font-weight: 500;
  margin-right: 30px;
}
```

```css
.modal__title > h5:hover {
  color: #b92b27;
}

.modal__info {
  display: flex;
  align-items: center;
  margin-top: 30px;
}

.modal__info > p {
  margin-left: 10px;
  font-size: small;
  color: gray;
}

.modal__info > .modal__scope {
  display: flex;
  align-items: center;
  color: rgb(98, 98, 98);
  padding: 5px;
  margin-left: 10px;
  background-color: rgb(230, 230, 230);
  border-radius: 33px;
  cursor: pointer;
}

.modal__Field {
  display: flex;
  flex-direction: column;
  margin-top: 30px;
  flex: 1;
}

.modal__Field > .modal__fieldLink {
  color: gray;
  display: flex;
  margin-top: 10px;
  align-items: center;
```

```css
}

.modal__Field > .modal__fieldLink > input {
  flex: 1;
  border: none;
  outline: none;
  margin-left: 5px;
}

.modal__buttons {
  display: flex;
  align-items: center;
  margin-top: 260px;
  margin-right: -20px;
  border-top: 1px solid lightgray;
}

.modal__buttons > .cancle {
  margin-left: auto;
  border: none;
  margin-top: 5px;
  outline: none;
  color: gray;
  font-weight: 500;
  padding: 10px;
  margin-right: 10px;
  border-radius: 33px;
  cursor: pointer;
}
.modal__buttons > .add {
  border: none;
  outline: none;
  margin-top: 5px;
  background-color: rgb(0, 64, 255);
  color: white;
  font-weight: 700;
  padding: 10px;
  margin-right: 10px;
  border-radius: 33px;
```

P1

```
    cursor: pointer;
}
```

➢ **Post (JS)**

```
import React, { useEffect, useState } from "react";
import { Avatar } from "@material-ui/core";
import ArrowUpwardOutlinedIcon from "@material-ui/icons/ArrowUpwardOutlined";
import ArrowDownwardOutlinedIcon from "@material-
ui/icons/ArrowDownwardOutlined";
import RepeatOutlinedIcon from "@material-ui/icons/RepeatOutlined";
import ChatBubbleOutlinedIcon from "@material-ui/icons/ChatBubbleOutlined";
import ShareOutlined from "@material-ui/icons/ShareOutlined";
import MoreHorizOutlined from "@material-ui/icons/MoreHorizOutlined";
import '../css/Post.css';
import Modal from "react-modal";
import '../css/Navbar.css';
import { useDispatch, useSelector } from "react-redux";
import { selectUser } from "../features/userSlice";
import db from "../firebase";
import { selectQuestionId, selectQuestionName, setQuestionInfo } from "../featu
res/questionSlice";
import firebase from "firebase/compat/app";
import "firebase/compat/auth"
import "firebase/compat/firestore"

Modal.setAppElement("#root");

function Post({ Id, question, imageUrl, timestamp, grequoUser }) {
    const user = useSelector(selectUser);
    const [openModal, setOpenModal] = useState(false)
    const dispatch = useDispatch();

    const questionName = useSelector(selectQuestionName);
    const questionId = useSelector(selectQuestionId);
    const [answer, setAnswer] = useState("");
    const [getAnswer, setGetAnswer] = useState([]);

  useEffect(() => {
    if (questionId) {
```

```
        db.collection("questions").doc(questionId).collection("answer").orderBy("
timestamp", "desc").onSnapshot(snapshot => setGetAnswer(snapshot.docs.map((doc)
 => ({
                id: doc.id,
                answers: doc.data()
            })))))
        }
    });

    const handleAnswer = (e) => {
        e.preventDefault();

        if (questionId) {
          db.collection("questions").doc(questionId).collection("answer").add({
                user: user,
                answer: answer,
                questionId: questionId,
                timestamp: firebase.firestore.FieldValue.serverTimestamp(),
            });
        }
        console.log(questionId, questionName);
        setAnswer("");
        setOpenModal(false);
    };

    return (
        <div className = "post"
            onClick={() => dispatch(setQuestionInfo({
                questionId: Id,
                questionName: question,
            }))}
            >
            <div className = "post__info" >
                <Avatar
                    src = {grequoUser.photo}
                />
                <h5>{grequoUser.displayName ? grequoUser.displayName : grequoUs
er.email}</h5>
                <small>{new Date(timestamp?.toDate()).toLocaleString()}</small>
```

```
            </div>
            <div className = "post__body">
                <div className = "post__question">
                    <p>{question}</p>
                    <button onClick={() => setOpenModal(true)} className = "pos
t__btnAnswer">
                        Answer
                    </button>
                    <Modal
                        isOpen={openModal}
                        onRequestClose={() => setOpenModal(false)}
                        shouldCloseOnOverlayClick={false}
                        style={{
                            overlay: {
                                width: 680,
                                height: 550,
                                backgroundColor: "rgba(0,0,0,0.8)",
                                zIndex: "1000",
                                top: "50%",
                                left: "50%",
                                marginTop: "-250px",
                                marginLeft: "-350px",
                            },
                        }}
                    >
                        <div className="modal__question">
                            <h1>{question}</h1>
                            <p>
                                asked by <span className="name">{grequoUser.dis
playName ? grequoUser.displayName : grequoUser.email} </span> {""}
                                on <sapn className="name">{new Date(timesta
mp?.toDate()).toLocaleString()}</sapn>
                            </p>
                        </div>
                        <div className="modal__answer">
                            <textarea
                            required
                            value={answer}
                            onChange={(e) => setAnswer(e.target.value)}
```

```jsx
                               placeholder="Enter Your Answer" type="text" />
                       </div>
                       <div className="modal__button">
                           <button className="cancle" onClick={() => setOpenMo
dal(false)}>
                               Cancel
                           </button>
                           <button onClick={handleAnswer} type="sumbit" classN
ame="add">
                               Add Answer
                           </button>
                       </div>
                   </Modal>
               </div>
               <div className = "post__answer">
                   {
                       getAnswer.map(({ id, answers }) => (
                           <p
                           key={id}
                           style={{ position: "relative",
                           paddingBottom: "5px" }}>
                               {Id === answers.questionId ? (
                                   <span>
                                   {answers.answer}
                                   <br />
                                   <span
                                     style={{
                                     position: "absolute",
                                     color: "gray",
                                     fontSize: "small",
                                     display: "flex",
                                     right: "0px",
                                   }}
                                 >
                                   <span style={{ color: "#b92b27" }}>
                                       {answers.user.displayName
                                         ? answers.user.displayName
                                         : answers.user.email} on {new Date(answ
ers.timestamp?.toDate()).toLocaleString()}
```

```
                                      </span>
                                  </span>
                                </span>
                              ) : (
                                ""
                              )}
                          </p>
                      ))
                  }
                  <p></p>
              </div>
              <img src = {imageUrl} alt ="" />
          </div>
          <div className = "post__footer">
              <div className = "post__footerAction">
                  <ArrowUpwardOutlinedIcon />
                  <ArrowDownwardOutlinedIcon />
              </div>
              <RepeatOutlinedIcon />
              <ChatBubbleOutlinedIcon />
              <div className = "Post__footerLeft">
                  <ShareOutlined />
                  <MoreHorizOutlined />
              </div>
          </div>
      </div>
    );
}

export default Post;
```

➢ **Post (CSS)**

```css
.post {
    display: flex;
    flex-direction: column;
    padding: 10px;
    background-color: white;
    border: 1px solid lightgray;
    border-radius: 5px;
    margin-top: 10px;
}

.post__info {
    display: flex;
    align-items: center;
}

.post__info > h5 {
    margin-left: 10px;
    cursor: pointer;
    font-size: 13px;
}

.post__info > h5:hover {
    text-decoration: underline;
}

.post__info > small {
    margin-left: 10px;
}

.post__body {
    display: flex;
    flex-direction: column;
}

.post__body > .post__question {
```

```css
    margin-top: 10px;
    font-weight: bold;
    margin-bottom: 10px;
    cursor: pointer;
    display: flex;
}

.post__question > .post__btnAnswer {
    margin-left: auto;
    cursor: pointer;
    outline: none;
    border: none;
    background-color: blue;
    color: lightgray;
    border-radius: 33px;
    font-weight: 300;
    font-size: 14px;
    padding: 7px;
}

.post__body > .post__question > p:hover {
    text-decoration: underline;
}

.post__body > img {
    object-fit: contain;
    width: 100%;
    border-radius: 5px;
    cursor: pointer;
}

.post__footer {
    display: flex;
    align-items: center;
    margin-top: 10px;
}

.post__footer > .MuiSvgIcon-root {
    color: gray;
```

```css
    margin-right: 40px;
    cursor: pointer;
}

.post__footerAction {
    display: flex;
    justify-content: space-around;
    border-radius: 30px;
    padding: 5px;
    background-color: lightgray;
    align-items: center;
}

.post__footerAction > .MuiSvgIcon-root {
    color: gray;
    margin-right: 40px;
    cursor: pointer;
}

.post__footerAction > .MuiSvgIcon-root:hover {
    color: #8f1f19;
    margin-right: 40px;
    cursor: pointer;
}

.post__footerLeft {
    margin-left: auto;
}

.post__footerLeft > .MuiSvgIcon-root {
    color: gray;
    cursor: pointer;
    margin-left: 30px;
}

.modal__question {
    display: flex;
    align-items: center;
    flex-direction: column;
```

```css
}

.modal__question > h1 {
  color: #8f1f1b;
  font-weight: 600;
  margin-bottom: 10px;
}

.modal__question > p {
  color: gray;
  font-size: small;
}

.modal__question > p > .name {
  color: black;
  font-weight: bold;
}

.modal__answer {
  display: flex;
  padding-top: 20px;
  flex: 1;
}

.modal__answer > textarea {
  width: 100%;
  height: 200px;
  padding: 5px;
  font-size: 15px;
  color: black;
}

.modal__button {
  display: flex;
  align-items: center;
  margin-right: -20px;
  border-top: 1px solid lightgray;
}
```

```css
.modal__button > .cancle {
  margin-left: auto;
  border: none;
  margin-top: 5px;
  outline: none;
  color: gray;
  font-weight: 500;
  padding: 10px;
  margin-right: 10px;
  border-radius: 33px;
  cursor: pointer;
}
.modal__button > .add {
  border: none;
  outline: none;
  margin-top: 5px;
  background-color: rgb(0, 64, 255);
  color: white;
  font-weight: 700;
  padding: 10px;
  margin-right: 10px;
  border-radius: 33px;
  cursor: pointer;
}
```

➤ **Feed (JS)**

```
import React, { useEffect, useState } from "react";
import "../css/Feed.css";
import db from "../firebase";
import Post from "./Post";
import GrequoBox from "./GrequoBox";

function Feed() {

  const [posts, setPosts] = useState([]);

  useEffect(() => {
    db.collection("questions")
      .orderBy("timestamp", "desc")
      .onSnapshot(snapshot =>
        setPosts(
          snapshot.docs.map((doc) => ({
            id: doc.id,
            question: doc.data(),
          }))
          )
        );
  }, []);

  return (
    <div className="feed">
      <GrequoBox />
      {posts.map(({ id, question}) => (
        <Post
          key = {id}
          Id = {id}
          imageUrl = {question.imageUrl}
          question = {question.question}
          timestamp = {question.timestamp}
          grequoUser = {question.user}
        />
```

```
      ))}
    </div>
  );
}

export default Feed;
```

➢ **Feed (CSS)**

```css
.feed {
    display: flex;
    flex-direction: column;
    flex: 0.6;
}
```

➢ **Widget (JS)**

```jsx
import React from "react";
import "../css/WidgetContent.css";

function WidgetContent() {
    return (
    <div className = "widget__contents">
        <div className = "widget__content">
            <img
                src="https://inc42.com/wp-content/uploads/2019/11/feature-1-
1200x702.jpg"
                alt=""
            />
            <div className = "widget__contentTitle">
                <h5>Challenges for EVs</h5>
                <p>Unpacking the challenges and opportunities of Electric Vehic
les.</p>
            </div>
        </div>
        <div className = "widget__content">
            <img
                src="https://i0.wp.com/evduniya.com/wp-
content/uploads/2020/04/Electric-Vehicles-Cars-bike-manufacturer-in-
India.jpg?fit=660%2C440&ssl=1"
                alt=""
            />
            <div className = "widget__contentTitle">
                <h5>Top-rated companies</h5>
                <p>All about best EV companies.</p>
            </div>
        </div>
        <div className = "widget__content">
            <img
                src="https://mk0egoveletsonla87wv.kinstacdn.com/wp-
content/uploads/2017/09/e-vehicle.jpg"
                alt=""
```

```
            />
            <div className = "widget__contentTitle">
                <h5>Buying Options</h5>
                <p>A guide for purchasing EVs.</p>
            </div>
        </div>
        <div className = "widget__content">
            <img
                src="https://t3.ftcdn.net/jpg/03/38/54/28/360_F_338542839_PJMPl
joyZQO54xCsG6ZlgHIrCl7iewbu.jpg"
                alt=""
            />
            <div className = "widget__contentTitle">
                <h5>Top-trends in EV design</h5>
                <p>A space to find key top trends that are shaping EV industry.
</p>
            </div>
        </div>
        <div className = "widget__content">
            <img
                src="https://www.internetsociety.org/wp-
content/uploads/2017/08/research.jpg"
                alt=""
            />
            <div className = "widget__contentTitle">
                <h5>Research on EVs</h5>
                <p>All about EV research and development.</p>
            </div>
        </div>
    </div>
    );
}

export default WidgetContent;
```

➢ **Widget (CSS)**

```css
.widget__contents {
    display: flex;
    flex-direction: column;
    cursor: pointer;
}

.widget__content {
    margin: 5px;
    display: flex;
    padding: 5px;
    border-bottom: 1px solid lightgray;
}

.widget__content > img {
    height: 30px;
    border-radius: 5px;
}

.widget__contentTitle {
    margin-left: 10px;
}

.widget__contentTitle > h5 {
    color: rgb(78, 68, 68);
}

.widget__contentTitle > p {
    color: gray;
    font-size: small;
}
```

➢ **Sidebar (JS)**

```javascript
import { Add } from "@material-ui/icons";
import React from "react";
import "../css/SidebarOptions.css";

function SidebarOptions() {
    return (
    <div className = "sidebarOptions">
        <div className = "sidebarOption">
            <img
                src = "https://e7.pngegg.com/pngimages/78/289/png-clipart-
history-of-books-history-of-books-history-text-anticariat-thumbnail.png"
                alt=""
            />
            <p>History</p>
        </div>
        <div className = "sidebarOption">
            <img
                src = "https://media.istockphoto.com/photos/modern-lithium-ion-
battery-technology-concept-metal-liion-battery-picture-
id1148805607?k=20&m=1148805607&s=612x612&w=0&h=IKlhIwmAI18SUbs-
FBvIVTXE_M8Mv2i6RalzYEJBfjM="
                alt=""
            />
            <p>Li-ion battery</p>
        </div>
        <div className = "sidebarOption">
            <img
                src = "https://www.3blmedia.com/sites/www.3blmedia.com/files/st
yles/400w/public/videos/thumbnails/509121/thumbnail-
509121_0006.png?itok=VlXMSLY1"
                alt=""
            />
            <p>Ground vehicles</p>
        </div>
        <div className = "sidebarOption">
```

```
        <img
            src = "https://upload.wikimedia.org/wikipedia/commons/thumb/6/6
4/Singapore_Airlines_Boeing_777-300ER_Ryabtsev.jpg/800px-
Singapore_Airlines_Boeing_777-300ER_Ryabtsev.jpg"
            alt=""
        />
        <p>Airborne EVs</p>
    </div>
    <div className = "sidebarOption">
        <img
            src = "https://cdn.i-
scmp.com/sites/default/files/d8/images/canvas/2021/03/25/afec8765-41ca-40ed-
8645-5522ac3fcc90_05238952.jpg"
            alt=""
        />
        <p>Seaborne EVs</p>
    </div>
    <div className = "sidebarOption">
        <img
            src = "https://upload.wikimedia.org/wikipedia/commons/thumb/2/2
c/Nissan_LEAF_%284055945788%29.jpg/156px-Nissan_LEAF_%284055945788%29.jpg"
            alt=""
        />
        <p>Properties</p>
    </div>
    <div className = "sidebarOption">
        <img
            src = "https://upload.wikimedia.org/wikipedia/commons/thumb/6/6
c/Charging_stations_in_SF_City_Hall_02_2009_02.jpg/156px-
Charging_stations_in_SF_City_Hall_02_2009_02.jpg"
            alt=""
        />
        <p>Charging</p>
    </div>
    <div className = "sidebarOption">
        <img
            src = "https://w7.pngwing.com/pngs/468/401/png-transparent-
efficiency-efficient-energy-use-energy-conservation-energy-efficient-angle-
text-logo-thumbnail.png"
```

```
                alt=""
            />
            <p>Efficiency</p>
        </div>
        <div className = "sidebarOption">
            <img
                src = "https://img.favpng.com/22/5/2/car-motor-vehicle-service-
automobile-repair-shop-hand-tool-maintenance-png-favpng-
8MjRSv4pwM8m8LPviBCCScFvu.jpg"
                alt=""
            />
            <p>Maintenance</p>
        </div>
        <div className = "sidebarOption">
            <img
                src = "https://deviceguru.com/files/ecotality-fast-charger-
concept.jpg"
                alt=""
            />
            <p>Future</p>
        </div>
        <div className = "sidebarOption">
        <Add />
        <p className = "text">Discover Spaces</p>
        </div>
    </div>
    );
}

export default SidebarOptions;
```

➢ **Sidebar (CSS)**

```css
.sidebarOptions{
    display: flex;
    flex-direction: column;
}

.sidebarOption{
    display: flex;
    align-items: center;
    padding: 10px;
    cursor: pointer;
}

.sidebarOption:hover{
    background-color: lightgray;
    border-radius: 5px;
}

.sidebarOption > img {
    height: 30px;
    margin-left: 20px;
    border-radius: 5px;
}

.sidebarOption > p {
    color: gray;
    font-weight: 400;
    margin-left: 10px;
}

.sidebarOption > .MuiSvgIcon-root {
    color: gray;
    font-size: medium;
    margin-left: 20px;
}
```

➢ **App (JS)**

```js
import React, { useEffect } from "react";
import { useDispatch, useSelector } from "react-redux";
import "./App.css";
import Login from "./component/auth/Login";
import Contact from "./component/Contact";
import Grequo from "./component/Grequo";
import { login, logout, selectUser } from "./features/userSlice";
import { auth } from "./firebase";


function App() {
  const user = useSelector(selectUser);
  const dispatch = useDispatch();
  useEffect(() => {
    auth.onAuthStateChanged((authUser) => {
      if (authUser) {
        dispatch(
          login({
            uid: authUser.uid,
            email: authUser.email,
            displayName: authUser.displayName,
            photo: authUser.photoURL,
          })
        );
      } else {
        dispatch(logout());
      }
      console.log(authUser);
    });
  }, [dispatch]);
  return (
    <div className="App">{user ? <Grequo /> : <Login />}<Contact /></div>
  );
}
```

```
export default App;
```

➢ **App (CSS)**

```css
.App {
  margin: 0;
  background-color: rgb(241, 241, 241);
  height: auto;
  width: auto;
}

@import url("https://fonts.googleapis.com/css2?family=Inter:wght@100;200;300;40
0;500;600;700;800;900&display=swap");

* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}

body {
  background-color: rgb(248, 246, 253);
}


.app {
  width: 100px;
  margin: 0 auto;
  height: 100vh;
}

/* Contact.js */
.form {
  height: 100vh;
  display: flex;
  flex-direction: column;
  justify-content: center;
}
```

```css
.form > h1 {
  margin-bottom: 30px;
}


.form > input,
textarea {
  padding: 20px;
  border-radius: 3px;
  /* box-shadow: 0px 0px 5px rgba(0, 0, 0, 0.137); */
  margin-bottom: 20px;
  border: 1px solid lightgray;
  /* border: none; */
  background: #fff;
  font-size: 16px;
  color: rgb(0, 0, 32);
  outline: none;
}

.form > input:focus,
textarea:focus {
  border: 1px solid rgb(0, 0, 196);
}

.form > textarea {
  height: 150px;
  max-width: 400px;
  min-height: 100px;
}

.form > label {
  padding-bottom: 10px;
  color: rgb(0, 0, 32);
  font-weight: bold;
}

.form > button {
  padding: 20px;
  border: none;
```

```css
  background-color: rgb(2, 2, 110);
  font-weight: 500;
  font-size: 20px;
  border-radius: 3px;
  color: #fff;
  cursor: pointer;
  transition: 0.2s ease-in-out;
  margin-top: 10px;
}

.form > button:hover {
  background-color: rgb(0, 0, 196);
}
```

➢ **Contact Us**

```jsx
import React, { useState } from "react";
import "../App.css";
import  db  from "../firebase";

const Contact = () => {
  const [name, setName] = useState("");
  const [email, setEmail] = useState("");
  const [message, setMessage] = useState("");

  const [loader, setLoader] = useState(false);

  const handleSubmit = (e) => {
    e.preventDefault();
    setLoader(true);

    db.collection("contacts")
      .add({
        name: name,
        email: email,
        message: message,
      })
      .then(() => {
        setLoader(false);
        alert("Your message has been submitted");
      })
      .catch((error) => {
        alert(error.message);
        setLoader(false);
      });

    setName("");
    setEmail("");
    setMessage("");
```

```jsx
  };

  return (
    <form className="form" onSubmit={handleSubmit}>
      <h1>Contact Us </h1>

      <label>Name</label>
      <input
        placeholder="Name"
        value={name}
        onChange={(e) => setName(e.target.value)}
      />

      <label>Email</label>
      <input
        placeholder="Email"
        value={email}
        onChange={(e) => setEmail(e.target.value)}
      />

      <label>Message</label>
      <textarea
        placeholder="Message"
        value={message}
        onChange={(e) => setMessage(e.target.value)}
      ></textarea>

      <button
        type="submit"
        style={{ background: loader ? "#ccc" : " rgb(2, 2, 110)" }}
      >
        Submit
      </button>
    </form>
  );
};

export default Contact;
```
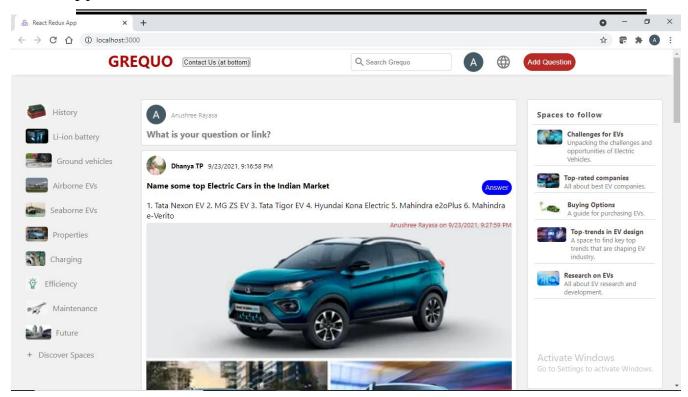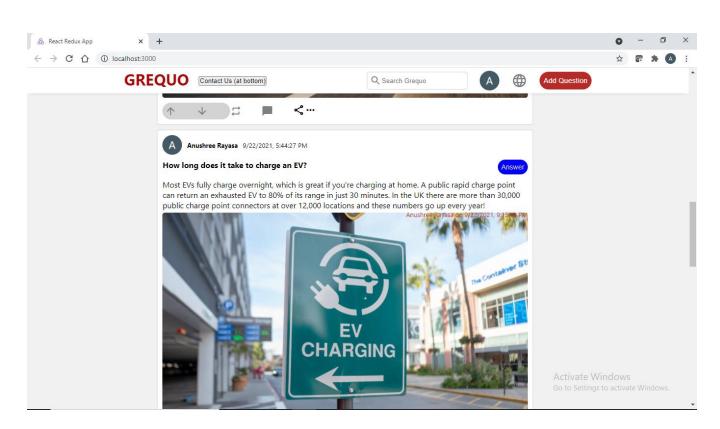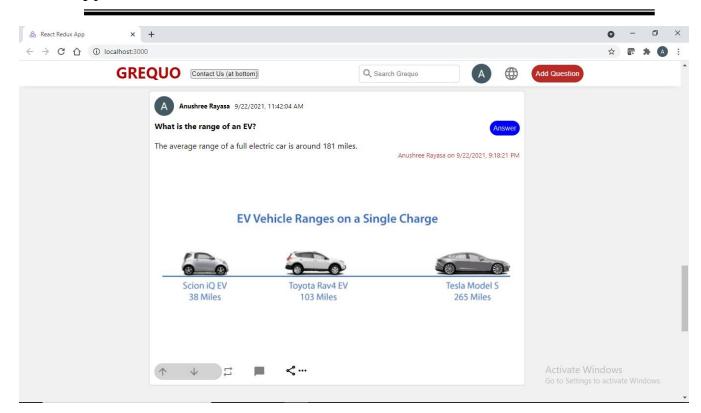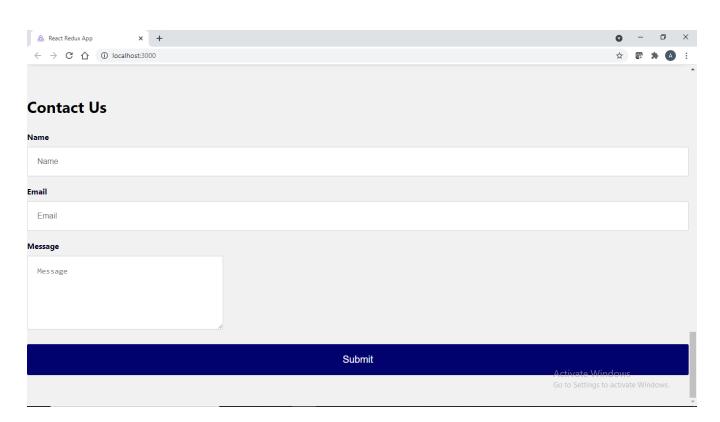
IMPLEMENTATION

Snapshots:

BIBLIOGRAPHY

- https://www.w3schools.com
- https://www.geeksforgeeks.org
- https://freefrontend.com

About my Team

Dhanya T P

Role played – created Login and Contact Us page files

Anushree M Rayas

Role played – created Grequo page files