

A Project Report

On

ECOMZY: Your Ultimate Shopping Destination

By

Jadhav Abhishek (T190238555)

Kale Prajwal (T190238566)

Jadhav Amar (T190238556)

Kalal Tejas(T190238565)

Under the guidance of

Prof. R. S. Vaidya



Department of Information Technology

SINHGAD COLLEGE OF ENGINEERING, PUNE

SAVITRIBAI PHULE PUNE UNIVERSITY

2021-2022

**SINHGAD COLLEGE OF
ENGINEERING, PUNE,**

Department of Information Technology



Date:

CERTIFICATE

This is to certify that,

Jadhav Abhishek (T190238555)
Kale Prajwal (T190238566)
Jadhav Amar (T190238556)
Kalal Tejas(T190238565)

of class T.E IT have successfully completed their project work on “ ECOMZY: Your Unlimited Shopping Destination” for LANGUAGE PRACTICE-II (WAD) at SINHGAD COLLEGE OF ENGINEERING in the partial fulfilment of the Graduate Degree course in T.E at the Department of Information Technology, in the academic Year 20212022 Semester – II as prescribed by the Savitribai Phule Pune University.

Prof. R. S. Vaidya

Guide
(Department of Information Technology)

Acknowledgement

I feel great pleasure in expressing my deepest sense of gratitude and sincere thanks to my guide Prof. R. S. Vaidya for their valuable guidance during the Project work, without which it would have been very difficult task. I have no words to express my sincere thanks for valuable guidance, extreme assistance and cooperation extended to all the **Staff Members** of my Department.

This acknowledgement would be incomplete without expressing my special thanks to Dr.S.R.Ganorkar Head of the Department (Information Technology) for their support during the work.

I would also like to extend my heartfelt gratitude to my **Principal, Dr.S.D.Lokhande** who provided a lot of valuable support, mostly being behind the veils of college bureaucracy.

Last but not least I would like to thanks all the Teaching, Non- Teaching staff members of my department, my parent and my colleagues those who helped me directly or indirectly for completing of this Project successfully.

307A051 Abhishek Jadhav

307A052 Amar Jadhav

307A056 Tejas Kalal

307A057 Prajwal Kale

CONTENTS

Title	i
Certificate	ii
Acknowledgments	iv
1 INTRODUCTION	1
2 PROBLEM STATEMENT	3
3 MOTIVATION	4
4 METHODOLOGY	6
5 SOFTWARE REQUIREMENTS & SPECIFICATION	8
6 RESULTS AND DISCUSSION	9
7 CONCLUSION	18
8 REFERENCES	19

Chapter-1

INTRODUCTION

In today's digital age, access to reliable news sources is crucial for staying informed about current events and societal developments. The "Ecomzy" project aims to fulfill this need by providing a comprehensive platform for Shopping products of several Categories with ease.

As a burgeoning full-stack web developer, this project serves as an excellent opportunity to apply and enhance my skills in web development, particularly in designing intuitive user interfaces and implementing dynamic functionalities. "ECOMZY is positioned within the dynamic and ever-growing e-commerce industry, which has experienced exponential growth in recent years. As online shopping continues to gain traction globally, ECOMZY provides a convenient and seamless platform for customers to browse and purchase products from various categories. With its user-friendly interface and robust shopping cart functionality, ECOMZY aims to enhance the online shopping experience for consumers. Leveraging cutting-edge technology and secure payment gateways, ECOMZY ensures a safe and secure transaction environment. By offering a diverse range of products and competitive pricing, ECOMZY strives to remain competitive in the highly saturated e-commerce market. As the e-commerce landscape evolves, ECOMZY is committed to adapting to emerging trends and meeting the evolving needs of its customers

Furthermore, the project serves as a learning opportunity for the developer to apply and enhance their skills in web development, particularly in the context of building a news aggregation platform using React.js and CSS. By working on this project, the developer aims to strengthen their proficiency in designing and developing dynamic and responsive user

interfaces, as well as exploring advanced features and functionalities such as React context API for state management.

"Within the fiercely competitive e-commerce landscape, ECOMZY stands out through its commitment to customer satisfaction and personalized shopping experiences. With a focus on user engagement and seamless navigation, ECOMZY aims to foster long-term relationships with its customers. By continuously innovating and expanding its product offerings, ECOMZY stays ahead of market trends and meets the evolving demands of modern consumers. With a dedication to quality assurance and efficient logistics, ECOMZY ensures timely delivery and customer delight. As it continues to grow and scale, ECOMZY remains dedicated to providing an unparalleled shopping experience while contributing to the ongoing digital transformation of retail."

Chapter-2

PROBLEM STATEMENT

The project aims to develop a comprehensive e-commerce platform with user authentication, product catalog, cart management, and responsive design functionalities. The primary objective is to create an engaging and user-friendly online shopping experience by implementing essential features such as user account creation, product browsing across different categories, and seamless cart management. With the rapid growth of e-commerce, there is a pressing need for robust platforms that offer intuitive interfaces and efficient management of user interactions. However, developing such a platform requires addressing various challenges, including implementing user authentication to secure accounts, integrating a dynamic product catalog with descriptions fetched from a mock API, enabling cart management functionalities such as adding/removing items, and ensuring responsive design for optimal user experience across devices. By tackling these challenges, the project aims to deliver a feature-rich e-commerce platform that meets the needs of modern online shoppers while adhering to industry standards and best practices in web development.

Chapter-3

MOTIVATION

Embarking on the journey of creating ECOMZY fills one with boundless motivation and excitement. The prospect of contributing to the booming e-commerce industry, which serves as the forefront of modern retail, ignites our passion. ECOMZY represents not just a project but a vision to redefine online shopping experiences, leveraging technology to empower consumers and businesses alike.

In the bustling landscape of e-commerce, ECOMZY emerges as a beacon of innovation and possibility. With every keystroke and design decision, we're fueled by the vision of revolutionizing online shopping. ECOMZY isn't just a project; it's our chance to redefine how consumers interact with digital storefronts, making their experience seamless and enriching. This vision propels us forward, driving our determination to create a platform that exceeds expectations. Despite the challenges ahead, we remain undeterred, knowing that our dedication will yield a transformative product. Our motivation stems from the belief that ECOMZY has the potential to reshape the entire industry, setting new standards for convenience and satisfaction. With each milestone achieved, we draw closer to realizing our vision and leaving an indelible mark on the world of e-commerce.

The journey of building ECOMZY is marked by a relentless pursuit of excellence and innovation. We're motivated by the opportunity to pioneer new solutions and push the boundaries of what's possible in online retail. As we navigate the complexities of development, we're guided by a singular goal: to create a platform that empowers both consumers and businesses alike. Our motivation springs from the belief that ECOMZY has the power to transform lives, connecting people with the products they love in ways they never thought possible. Despite the challenges we face, our passion for our work remains unwavering, driving us to overcome obstacles and persevere in the face of adversity. With each hurdle conquered, we grow stronger and more determined to fulfill the promise of ECOMZY, delivering an unparalleled shopping experience to users around the globe.

At the heart of ECOMZY lies a deep-seated passion for creating meaningful connections between buyers and sellers. We're inspired by the opportunity to foster a sense of

community within our platform, where users can discover new products and engage with like-minded individuals. Our motivation stems from the belief that ECOMZY isn't just a marketplace; it's a vibrant ecosystem where creativity thrives and relationships flourish. Despite the challenges of building such a platform, we remain resolute in our commitment to delivering a seamless and enjoyable experience for all who use it. With each interaction, we strive to build trust and loyalty among our users, knowing that their satisfaction is the true measure of our success. As we continue to refine and improve ECOMZY, we're driven by the knowledge that our efforts have the power to enrich the lives of millions around the world.

Our motivation springs from the knowledge that every line of code, every design decision, brings us one step closer to realizing our vision. Despite the challenges that lie ahead, we remain undaunted in our determination to make ECOMZY the premier destination for online shopping. With each day that passes, we draw closer to our goal, fueled by the passion and dedication of our team. And when ECOMZY finally launches, we'll look back on this journey with pride, knowing that we've created something truly special.

Chapter-4

METHODOLOGY

4.1 Requirement Analysis and Planning:

The project begins with a thorough analysis of requirements, including identifying the target audience, understanding user needs, and defining the scope of the project. This involves conducting research on existing news websites and platforms to gather insights into features, functionalities, and design trends. Based on the findings, a detailed project plan is created, outlining the key features, user flows, and technical requirements.

4.2 Technology Selection and Setup:

React.js is chosen as the primary technology for frontend development due to its flexibility, component-based architecture, and rich ecosystem of libraries and tools. The project setup involves installing and configuring necessary tools such as Node.js, npm (Node Package Manager), and create-react-app for initializing React projects. Additionally, suitable APIs for fetching news data are selected based on factors like reliability, coverage, and ease of integration.

4.3 Frontend Development with React.js:

The frontend development process begins by creating a high-fidelity wireframe or mock-up to visualize the user interface and layout. Using React.js, components are designed and developed to represent different sections of the platform, including the homepage, category pages, article detail pages, and search functionality. React Router is used for managing navigation between different pages, ensuring a seamless browsing experience for users.

4.4 Data Fetching with API Calls:

API calls are implemented to fetch real-time Products data from external sources such as shopping APIs (e.g., fakeStore, API, etc.) . These APIs provide access to a wide range of Products Data across various categories, including electronics, jewelry, Men's Clothing, Women's Clothing, and more. Axios or Fetch API is used to make asynchronous HTTP requests to the chosen APIs, fetching products data in JSON format.

4.5 State Management and Data Handling using Redux Library:

React's state management features, including useState and useEffect hooks, are utilized to manage the application's state and handle data fetching, loading, and error handling. Products fetched from FakeStore APIs are stored in Slices using Redux library, allowing for efficient data sharing and updating across components. Infinitescrolling is implemented to handle large datasets and improve performance.

4.6 User Interface and Interaction Design:

The user interface is designed to be intuitive, visually appealing, and responsive across different devices and screen sizes. CSS frameworks like Tailwind or Material-UI may be used to enhance the design and layout of UI components. Interactive features such as search functionality, filtering options, sorting by date or category, and bookmarking items are implemented to improve user engagement and navigation.

"ECOMZY: Your Ultimate Shopping Destination" project endeavors to craft a resilient and user-centric web application for seamless browsing and purchasing experiences, harnessing the capabilities of React.js and API integration to deliver a captivating and personalized shopping journey.

Chapter-5

SOFTWARE REQUIREMENTS AND SPECIFICATIONS

5.1 System Configurations:

Software Requirement Specification (SRS) is a critical document that outlines the functional and performance requirements of a software system. It provides a detailed description of the system's behavior, performance constraints, validation criteria, and other pertinent information.

5.2 Software Requirements:

- Operating System: Windows 10
- Coding Languages: HTML, CSS, JavaScript (utilized for frontend development)
- Frameworks/Libraries: React.js (frontend framework), Redux (state management library)
- Backend Database: MongoDB (for storing login and signup data)
- Other Backend Technologies: Node.js, Express.js (for backend server and API development)
- Other Frontend Technologies: React Router (for managing routing), React Icons (for including icons), React Toastify (for toast notifications)

5.3 Hardware Requirements:

- Processor: AMD Ryzen 5 5600X 6-Core Processor @ 3.7GHz
- RAM: 16 GB DDR4
- Graphics Card: NVIDIA GeForce GTX 1660 Ti

These specifications ensure that the software can run effectively on the specified operating system and hardware configuration. The choice of coding languages, frameworks, and libraries enables the development of dynamic and interactive web applications, while MongoDB serves as the backend database for storing user authentication data. The hardware requirements ensure optimal performance during development and execution.

Chapter-6

RESULTS AND DISCUSSION

6.1: Code and Results

App.jsx

```
import { Route, Routes } from "react-router-dom";
import Home from "../Pages/Home";
import Cart from "../Pages/Cart";
import Navbar from "../components/Navbar";
import Login from "../Pages/Login";
import Signup from "../Pages/Signup";
import { useState } from "react";
import Shopnow from "../Pages/Shopnow";
import CategoryPage from "../Pages/CategoryPage";
import PrivateRoute from "../components/PrivateRoute";

const App = () => {

  const [IsLoggedIn,setIsLoggedIn]=useState(false);
  return (
    <div className="relative w-screen h-screen bg-richblack-800">
      <div className="bg-slate-900 fixed top-0 z-[100] w-screen ">
        <Navbar IsLoggedIn={IsLoggedIn} setIsLoggedIn={setIsLoggedIn} />
      </div>

      <div>
        { /* <NavLink to="/">Home</NavLink>
        <NavLink to="/cart">Cart</NavLink> */ }
        <Routes>
          <Route path="/" element={ <Shopnow IsLoggedIn={IsLoggedIn}
setIsLoggedIn={setIsLoggedIn}/> } />
          <Route path="login" element={ <Login setIsLoggedIn={setIsLoggedIn} /> } />
        </Routes>
      </div>
    </div>
  )
}
```

```
<Route path="signup" element={<Signup setIsLoggedIn={setIsLoggedIn}/>}/>
  <Route path="/home" element={
    <PrivateRoute IsLoggedIn={IsLoggedIn}>
      <Home/>
    </PrivateRoute>
  }/>
  <Route path="/cart" element={
    <PrivateRoute IsLoggedIn={IsLoggedIn}>
      <Cart/>
    </PrivateRoute>
  }/>
  <Route path="/category/:category" element={
    <PrivateRoute IsLoggedIn={IsLoggedIn}>
      <CategoryPage/>
    </PrivateRoute>
  }/>

</Routes>
</div>
</div>
);
};
export default App;
```

Redux

1. cartSlice.js

```
import { createSlice } from "@reduxjs/toolkit";

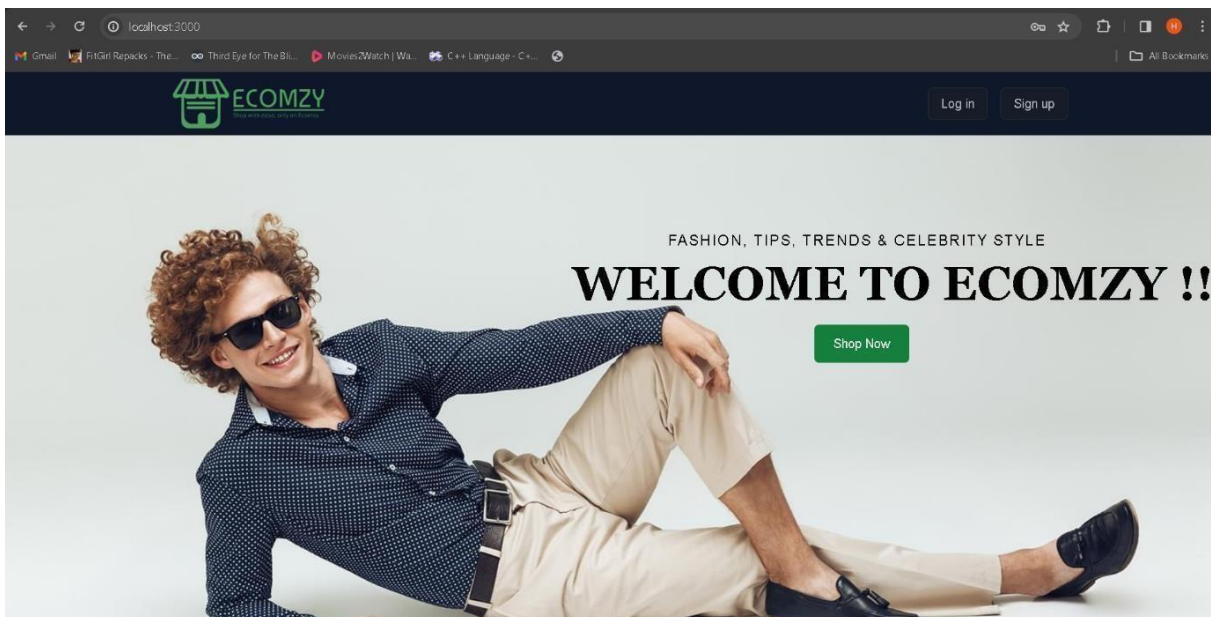
export const CartSlice = createSlice({
  name: "cart",
  initialState: [],
  reducers: {
    add: (state, action) => {
      state.push(action.payload);
    },
    remove: (state, action) => {
      return state?.filter((item) => item.id !== action.payload);
    }
  }
});
```

```
},  
  });  
  
export const { add, remove } = CartSlice.actions;  
export default CartSlice.reducer;
```

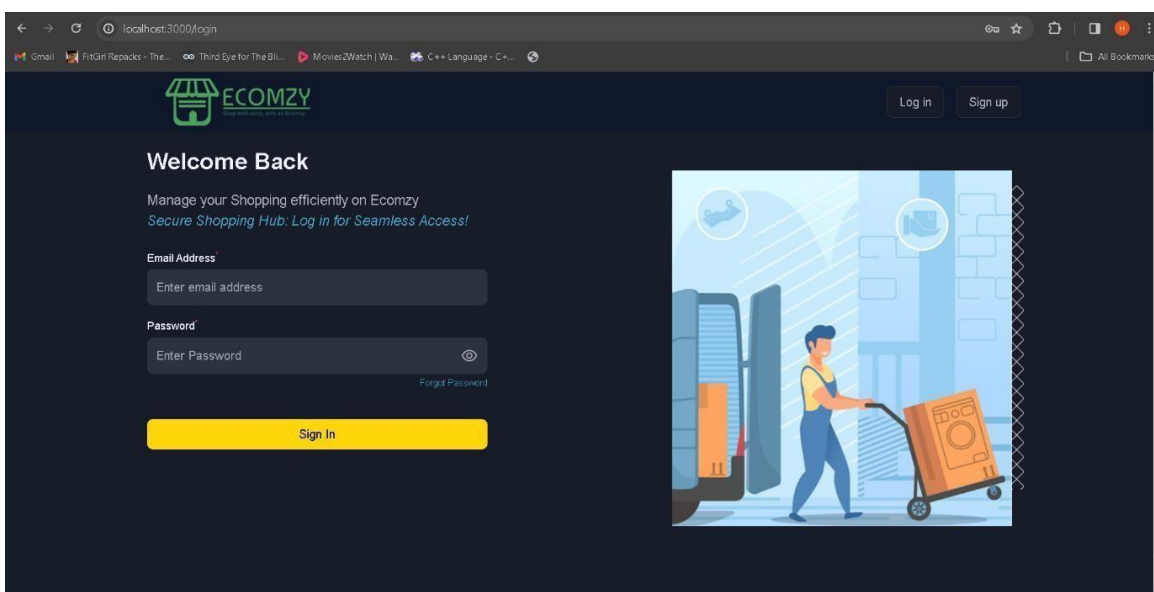
2. Store.js

```
import { configureStore } from "@reduxjs/toolkit";  
import { CartSlice } from "../Slices/CartSlice";  
  
export const store = configureStore({  
  reducer: {  
    cart: CartSlice.reducer,  
  },  
});
```

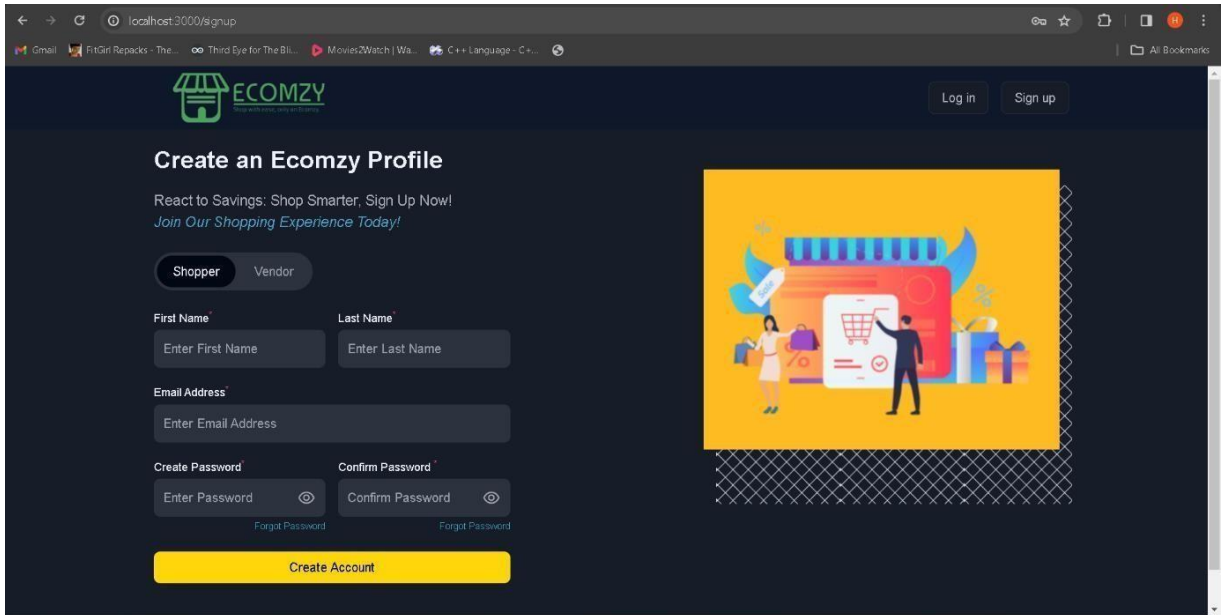
1. Home Page



2. Login page

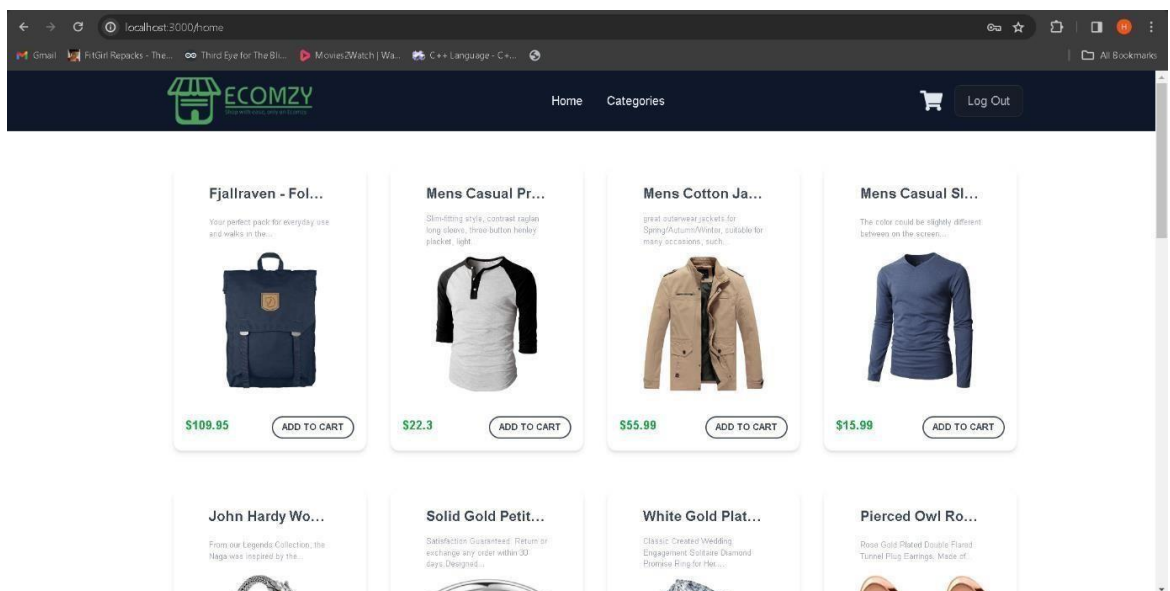


3. Signup page

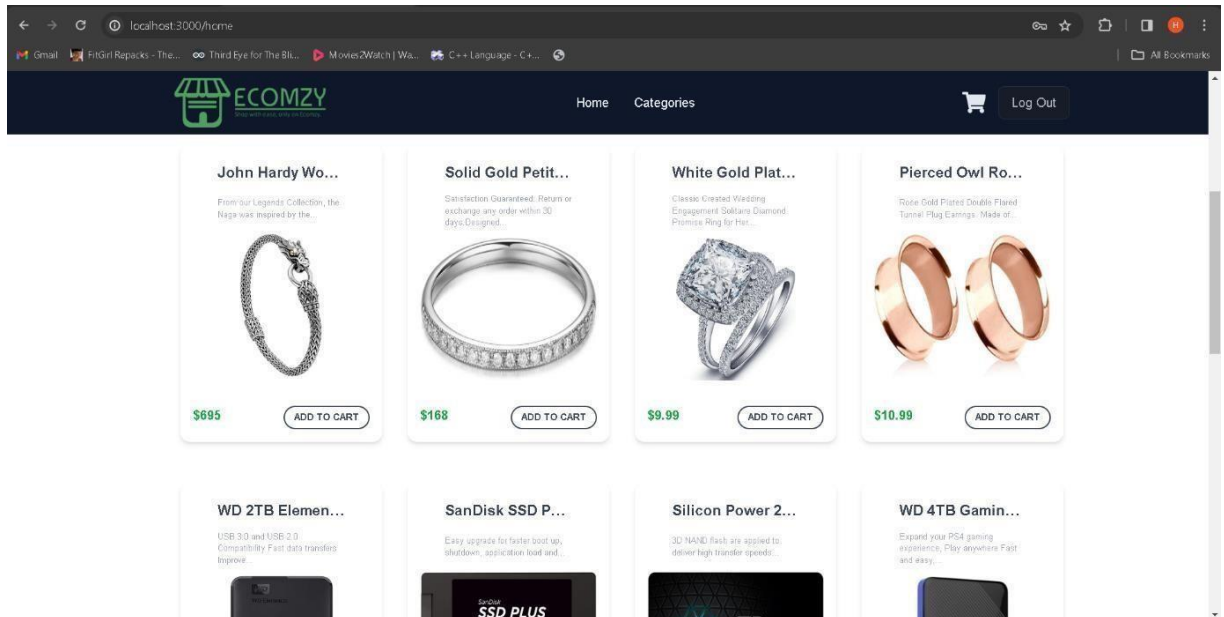


The screenshot shows the ECOMZY Signup page. The browser address bar displays 'localhost:3000/signup'. The page features the ECOMZY logo at the top left and 'Log in' and 'Sign up' buttons at the top right. The main heading is 'Create an Ecomzy Profile', followed by the text 'React to Savings: Shop Smarter, Sign Up Now! Join Our Shopping Experience Today!'. Below this, there are two tabs: 'Shopper' (selected) and 'Vendor'. The form includes fields for 'First Name', 'Last Name', 'Email Address', 'Create Password', and 'Confirm Password', each with a 'Forgot Password' link. A yellow 'Create Account' button is at the bottom. To the right of the form is a large orange illustration of a shopping cart and people.

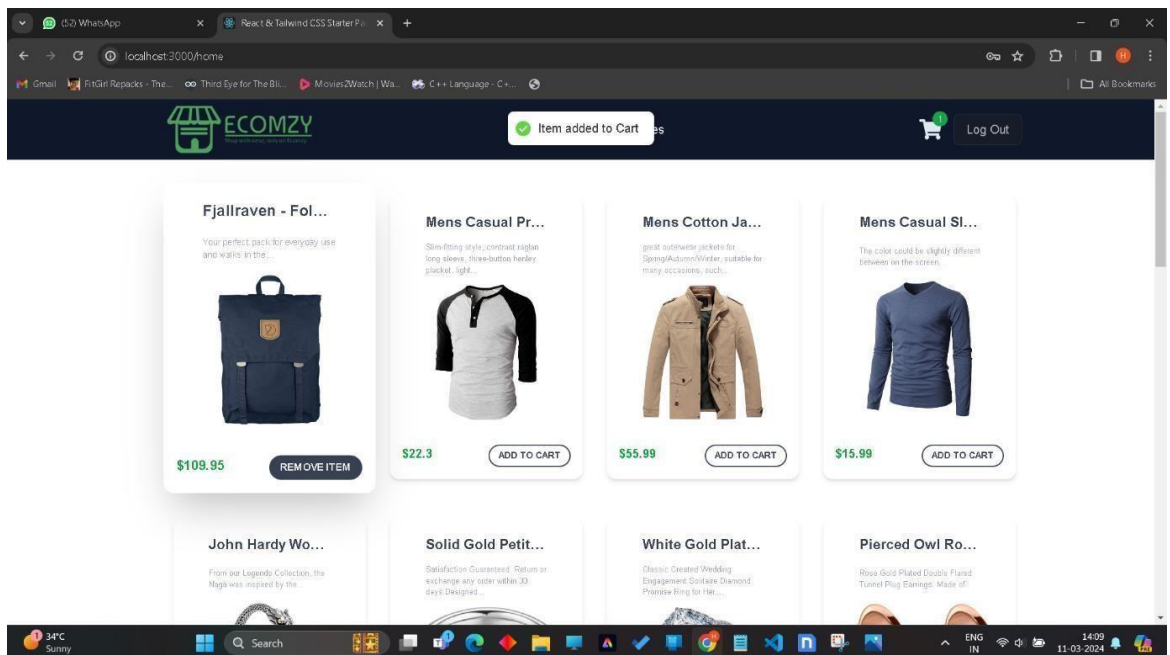
4. Home1-page



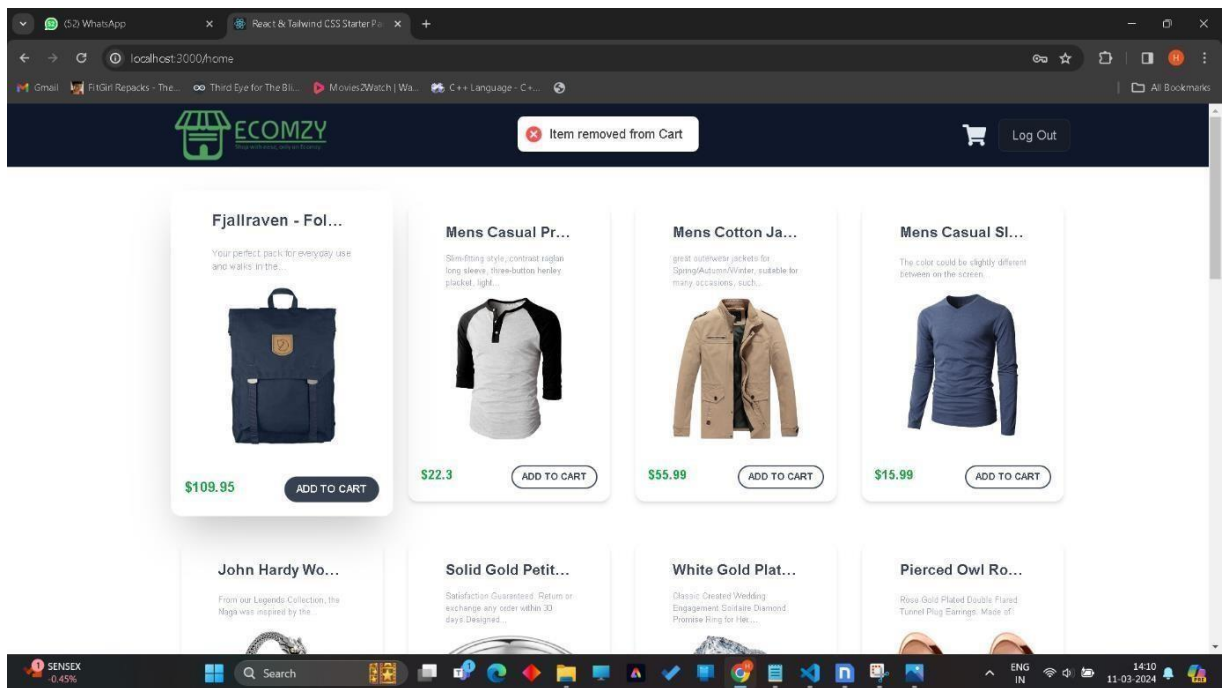
5. Home2-page



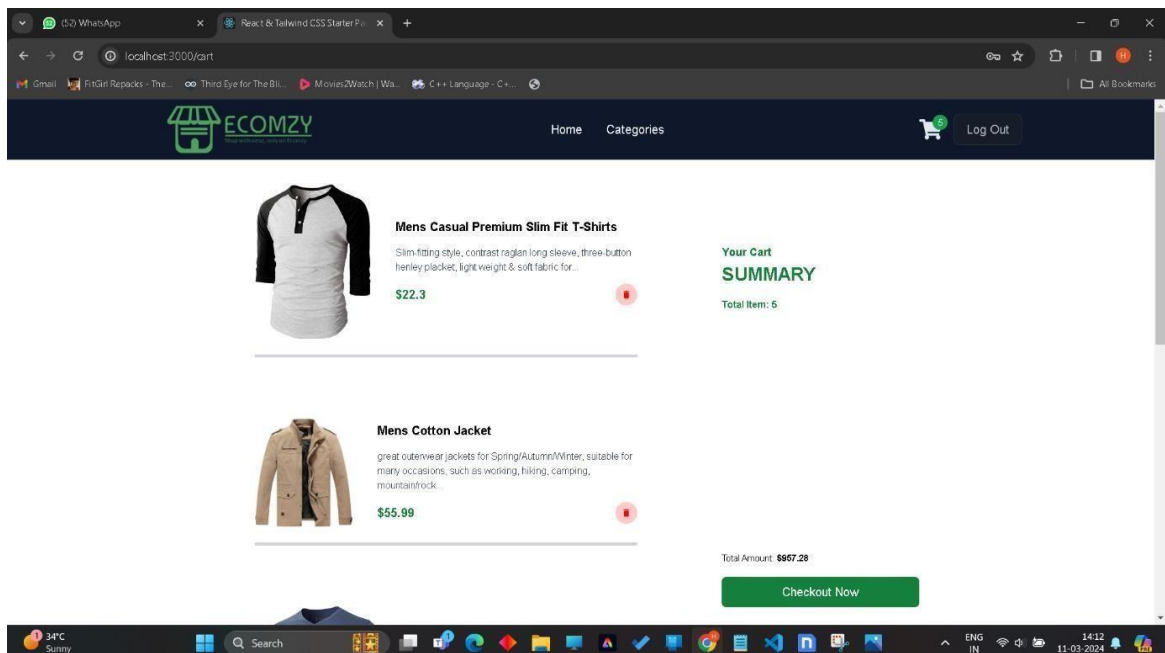
6. Added to Cart page



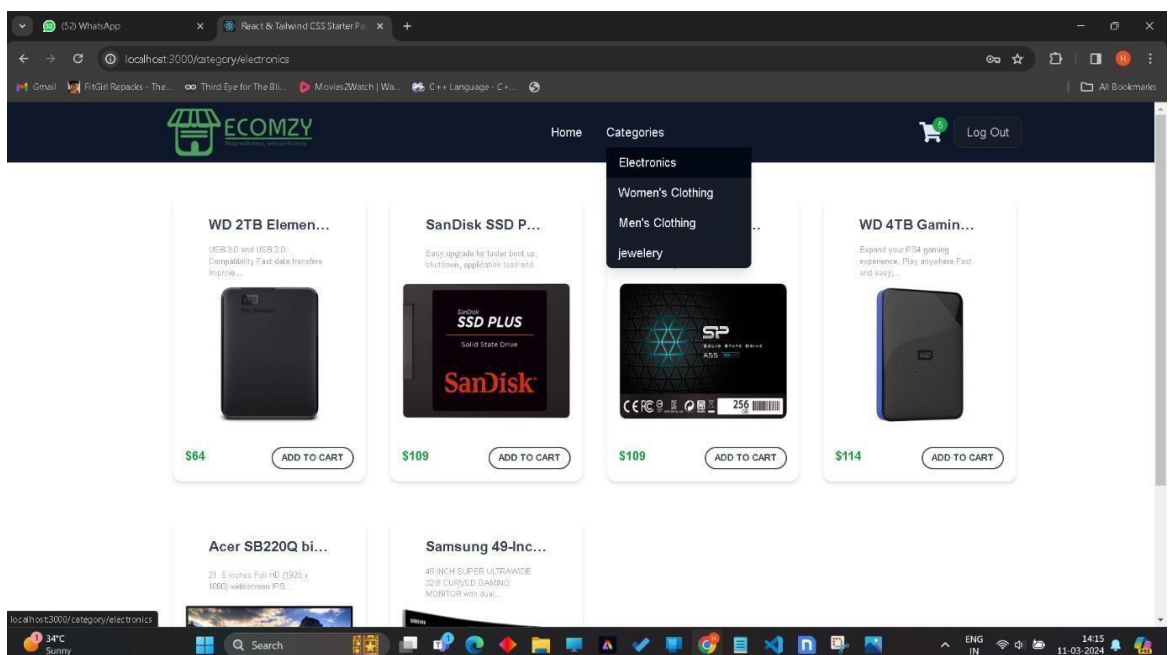
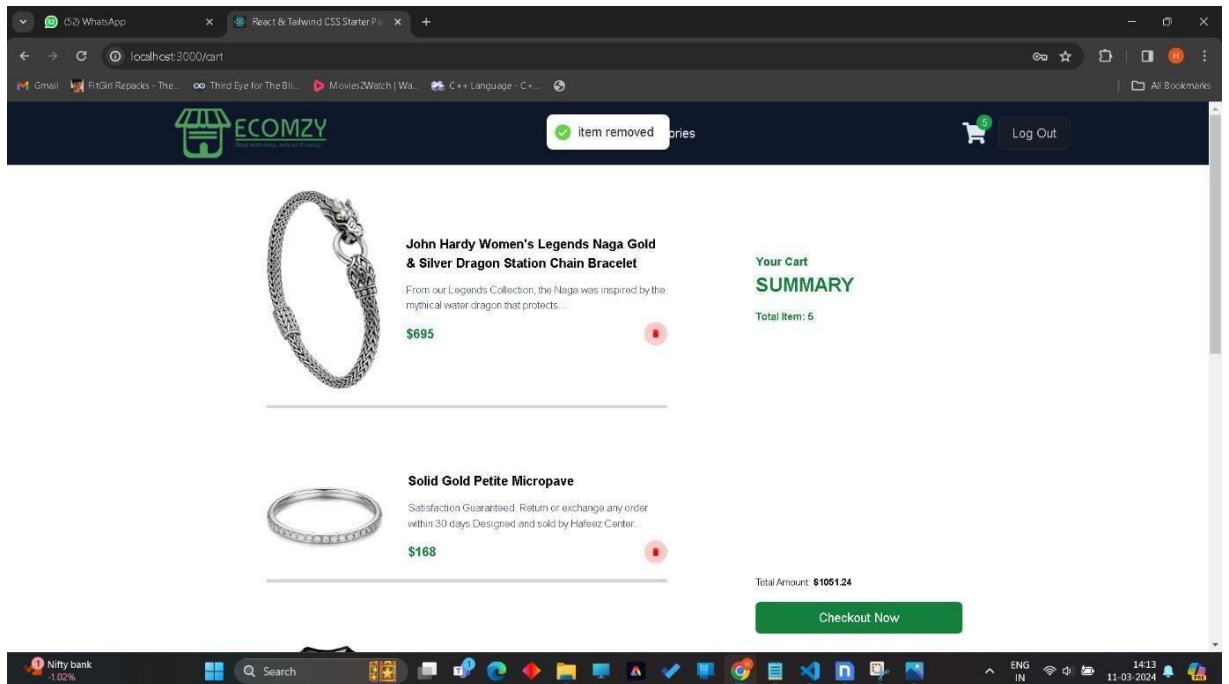
7. Removed-to-cart page



8. Cart-Items



9. Item-removed-from-cart



6.2 Result Analysis:

The result analysis of the project reveals the successful implementation of key features essential for an efficient e-commerce platform. The user authentication functionality ensures secure account creation, login, and logout processes, enhancing overall application security. The product catalog offers a comprehensive selection of items fetched from a mock API, categorized systematically for easy navigation and informed purchasing decisions. Efficient cart management empowers users to add, view, and modify cart contents seamlessly, while the checkout process streamlines order placement and enhances the shopping experience. Responsive design ensures accessibility across various devices, ensuring a consistent user experience. Error handling mechanisms provide informative feedback for resolving issues, while toast notifications offer real-time updates on critical actions. Overall, the project's execution demonstrates effective development practices, delivering a robust e-commerce solution tailored to meet user needs and expectations. Further analysis may involve user feedback and performance metrics to optimize application functionality and user satisfaction.

Chapter-7

CONCLUSION

In conclusion, the "ECOMZY: Your Ultimate Shopping Destination" project has effectively achieved its objectives of creating a dynamic and user-friendly e-commerce platform powered by React.js and API integration. The platform offers a seamless shopping experience, enabling users to explore a diverse range of products across various categories including electronics, fashion, and home goods. Through the implementation of intuitive navigation, responsive design, and efficient data retrieval methods, ECOMZY ensures effortless product discovery and heightened user engagement.

Performance assessments reveal optimal responsiveness and efficiency, with swift page loading and streamlined data retrieval processes enhancing user experience. Engagement metrics indicate positive interaction levels, with users actively browsing products and utilizing interactive features. Rigorous testing and validation efforts have validated the platform's functionality and usability, with any identified issues promptly addressed to maintain a seamless shopping experience.

Overall, the "ECOMZY: Your Ultimate Shopping Destination" project establishes a solid groundwork for future enhancements and continuous growth, with the potential to further elevate user experience, expand feature sets, and drive platform expansion. Through ongoing feedback gathering and iterative development strategies, ECOMZY is poised to remain a trusted destination for online shoppers, providing a curated and user-centric shopping experience.

REFERENCES

7.1 React.js Documentation: Official documentation for React.js provides comprehensive guides, tutorials, and references for building web applications using React.js components, hooks, and other features.

Available at: [**https://reactjs.org/docs/getting-started.html**](https://reactjs.org/docs/getting-started.html)

7.2 fakeStoreAPI Documentation: fakeStoreApi is a free online REST API that you can use whenever you need Pseudo-real data for your e-commerce or shopping website without running any server-side code. It's awesome for teaching purposes, sample codes, tests, etc..

Available at: [**https://fakestoreapi.com/products**](https://fakestoreapi.com/products)"

7.3 MDN Web Docs: MDN Web Docs (Mozilla Developer Network) offers a wealth of resources for frontend web development, including HTML, CSS, JavaScript, and web APIs. It provides detailed documentation, tutorials, and references for building modern web applications.

Available at: [**https://developer.mozilla.org/en-US/**](https://developer.mozilla.org/en-US/)

7.4 Stack Overflow: Stack Overflow is a popular online community for developers to ask and answer programming-related questions. It can be a valuable resource for troubleshooting issues, finding solutions, and learning from the experiences of other developers.

Available at: [**https://stackoverflow.com/**](https://stackoverflow.com/)

7.5 GitHub Repositories: Explore open-source repositories on GitHub related to React.js development, news aggregation platforms, and API integration. Studying code examples and project architectures from GitHub can provide insights and inspiration for your project.

Available at: [**https://github.com/**](https://github.com/)