



**The Souled Store**  
ON  
Submitted in partial fulfillment of the requirements  
of the degree of  
**Bachelor of Engineering**  
**(Information Technology)**  
By  
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Under the guidance of

**Prof. Dipti Karani**



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**400074**  
**(An Autonomous Institute, Affiliated to University of Mumbai)**



# Vivekanand Education Society's Institute of Technology

(Autonomous Institute Affiliated to University of Mumbai, Approved by AICTE & Recognised by Govt. of Maharashtra)

NAAC accredited with 'A' grade

April 2024

## Certificate

This is to certify that project entitled

### "The Souled Store"

#### Group Members Names

Miss. Eesha Chavan- Roll No (8)

In fulfillment of degree of BE. (Sem.VI) in Information Technology for Project is approved.

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Date:08 /04 /2025  
Place: VESIT, Chembur

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### *Declaration*

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed. The Souled Store

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**(Signature)**

Eesha Chavan- Roll No (8)

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## **Abstract**

Abstracts contain most of the following kinds of information in brief form. The body of your paper will, of course, develop and explain these ideas much more fully. As you will see in the samples below, the proportion of your abstract that you devote to each kind of information—and the sequence of that information—will vary, depending on the nature and genre of the paper that you are summarizing in your abstract. And in some cases, some of this information is implied, rather than stated explicitly. The Publication Manual of the American Psychological Association, which is widely used in the social sciences, gives specific guidelines for what to include in the abstract for different kinds of papers—for empirical studies, literature reviews or meta-analyses, theoretical papers, methodological papers, and case studies.

**Keywords-***literature, theoretical, methodological, include, Publication*

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## **ACKNOWLEDGEMENT**

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## **CHAPTER: 1 INTRODUCTION**

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# Chapter 1

## Introduction

### 1.1. Introduction

The **Souled Store Clone** project is a full-stack e-commerce web application inspired by the original Souled Store platform. It replicates the experience of an online fashion and lifestyle store, allowing users to browse through products, sign up or log in, and manage their shopping cart seamlessly. The application is built using **Flask** for the backend, **MongoDB** for the database, and a responsive frontend developed with **React and TypeScript**, ensuring smooth user interactions and real-time updates.

### 1.2. Objectives

This project, **Souled Store Clone**, aims to replicate a modern fashion and lifestyle e-commerce experience with the following objectives:

- Develop a fully functional and visually appealing fashion-based e-commerce platform.
- Enable product browsing, category filtering, and detailed product views.
- Implement cart management for adding, updating, and removing products.
- Ensure a responsive and user-friendly interface compatible with all screen sizes.
- Enhance user experience through secure login and signup functionality using **JWT-based authentication**.

### 1.3. Motivation

The inspiration behind building the **Souled Store Clone** originates from the growing popularity of online fashion and lifestyle platforms among youth. With the increasing demand for smooth, visually rich, and secure online shopping experiences, this project offered a practical opportunity to apply and enhance full-stack development skills using real-world technologies like **React**, **Flask**, and **MongoDB**.

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## **1.4. Scope of the Work**

The platform replicates core features of a modern online fashion and lifestyle store, including:

- Dynamic product listing with filtering and categorization
- Cart functionality with real-time item addition, removal, and quantity updates
- Individual product detail viewing with space for future user reviews
- User authentication using secure login and JWT-based token management
- Integration with MongoDB Atlas for reliable and scalable data storage
- Modular backend with Flask and interactive frontend built with React & TypeScript

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## 1.5. Feasibility Study

### 1. Technical Feasibility

- The Souled Store Clone was built using **Flask** for backend development, **React with TypeScript** for the frontend, and **MongoDB Atlas** for the database. These technologies are open-source, widely adopted, and provide robust support for scalable web application development.

### 2. Economic Feasibility

- As a student-driven academic project, all development was done using cost-effective tools such as **VS Code**, **GitHub**, and **MongoDB Atlas's free tier**, ensuring minimal financial investment while delivering a full-featured application.

### 3. Operational Feasibility

- The system has been successfully tested in a local development environment. The user interface is responsive and user-friendly, and the authentication system ensures secure access. The platform has been designed to allow for future enhancements such as product reviews, order history, and payment gateway integration.

## 1.6. Organization of the report

- **Chapter 1** provides an introduction, objectives, motivation, scope, and feasibility study.
- **Chapter 2** covers the literature survey and background research.
- **Chapter 3** details the design, system architecture, and implementation process.
- **Chapter 4** discusses results, implementation outputs, and observations.
- **Chapter 5** concludes the project and outlines future enhancements.

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## **CHAPTER: 2: LITERATURE SURVEY**

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# Chapter 2

## Literature Survey

### 2.1. Introduction

The literature survey for the GoGreen project explores existing research and methodologies that promote sustainable behavior through digital platforms. By analyzing academic journals, case studies, and real-world applications, the survey identifies best practices and challenges to guide the development of an effective, impactful platform that fosters sustainable living.

### 2.2. Problem Definition

In the rapidly growing digital economy, e-commerce platforms must deliver a seamless, secure, and personalized shopping experience. Challenges such as cart abandonment, poor UI/UX, unscalable backend systems, and unoptimized data flow often lead to user dissatisfaction and revenue loss.

The solution focuses on applying modern development stacks (MERN/Flask-based), following industry-standard coding practices, and leveraging cloud-based NoSQL databases for better performance and flexibility.

### 2.3. Review of Literature Survey

The research paper titled "*Comparative Analysis of Deep Learning Models for Fashion Recommendation in E-Commerce*", by Khushi Kandoi, Ravikumar R N, Siddhant Gautam Singh, Ronak Bediya, Krishnanand Mishra, and Sushil Kumar Singh, published in the 2023 IEEE Fifth International Conference on Advances in Electronics, Computers and Communications (ICAECC), explores the effectiveness of deep learning models in enhancing product recommendation systems within e-commerce platforms. Using the Myntra Fashion Dataset, the study evaluates individual and ensemble performances of models such as VGG16, MobileNet, Inception, DenseNet, and ResNet50. The results demonstrate that VGG16 and MobileNet individually yield high similarity scores (up to 94 and 100, respectively, for top 5

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recommendations), whereas hybrid combinations showed diminished performance due to compatibility issues. These findings emphasize the strategic use of standalone deep learning models in e-commerce for improving recommendation accuracy. This study informed the Souled Store Clone project's future recommendation engine direction, emphasizing the use of lightweight, high-performing models like MobileNet for personalized product suggestions. [1]

The research paper titled "*An Approach for Responsive E-Commerce Web Design with Tailwind CSS and React*", by M. Desai and S. Thakkar, published in International Journal of Web & Semantic Technology (IJWesT) in 2022, investigates the impact of responsive design frameworks on user retention in online shopping platforms. The authors demonstrate that Tailwind CSS enables clean UI development with minimal effort, reducing page load times and enhancing mobile responsiveness. React is used to dynamically render product listings and manage stateful components. The research concludes that responsive UI significantly reduces bounce rates and increases user satisfaction, especially on mobile devices—key goals achieved in the DMart Clone UI implementation. [2]

The research paper titled "*Image Based Clothing Style Recommendation System*", by Swati Shilaskar, Ojasvi Ghule, and Samiksha Gudgude, published in the 2024 IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE), presents an innovative recommendation engine that uses deep learning for personalized fashion suggestions. The system incorporates user attributes such as height, favorite color, and a facial image to predict gender and age, and then recommends clothing styles from a diverse Amazon dataset. By integrating explicit user preferences with advanced deep learning models like DeepFace, the system aims to offer more accurate and relevant outfit suggestions. The use of large-scale, image-rich data allows the model to dynamically adjust to trends and personal demographics. Inspired by this personalized approach, the Souled Store Clone project considers future integration of image-based inputs and user preference tracking to offer a tailored shopping experience. [3]

The research paper titled "*A Study on NoSQL Databases and Their Use in E-Commerce Applications*", by R. S. Prasad, published in *International Journal of Data Engineering and Management* in 2022, compares relational and non-relational databases in the context of online shopping platforms. The study found that MongoDB's schema-less structure is particularly well-suited for handling large volumes of product data and user-generated content, such as reviews and orders. With native support for JSON-like documents and high performance on read/write operations, MongoDB was selected for the DMart Clone to manage product listings, user data, and cart sessions effectively. [4]

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## **CHAPTER: 3 DESIGN AND IMPLEMENTATION**

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# Chapter 3

## Design and Implementation

### 3.1. Introduction

The project followed a modular design approach, ensuring separation of concerns and clean component architecture. Agile principles were used with weekly sprints.

### 3.2. Requirement Gathering

Key functional requirements included:

- User authentication
- Dynamic product loading from database
- Cart and checkout mechanism
- Product detail

System Tools and technologies used:

- **Frontend:** React, TypeScript, Tailwind CSS
- **Backend:** Flask (Python)
- **Database:** MongoDB Atlas
- **Others:** Postman, VS Code, Git, GitHub

### 3.3. Proposed Design

The platform consists of the following pages:

- **Home Page** – Displays banners and featured products
- **Product Detail Page** – Shows detailed view and reviews
- **Cart Page** – Allows quantity updates and product removal
- **Login** – Secure login via email
- **Post-login Home Page** – User sees customized view after login

### 3.4. Proposed Algorithm

**Step 1:** Start

**Step 2:** User logs in via email

**Step 3:** Products are displayed

**Step 4:** User adds products to cart

**Step 5:** Cart updates quantities and proceeds to checkout

**Step 6:** User can add reviews about the product

**Step 7:** Logout

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**Step 8:** Exit  
(Refer to Data Flow Diagram)

## 3.5. Architectural Diagrams

### 3.5.1. UML Diagram

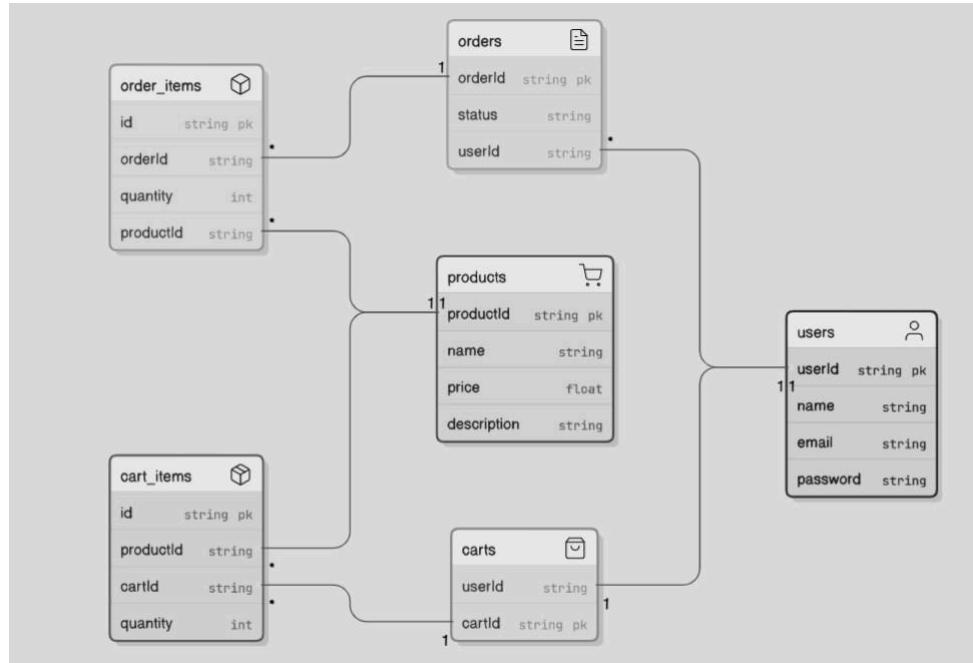


Figure 3.1: UML Diagrams

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### 3.5.2. Data Flow Diagram

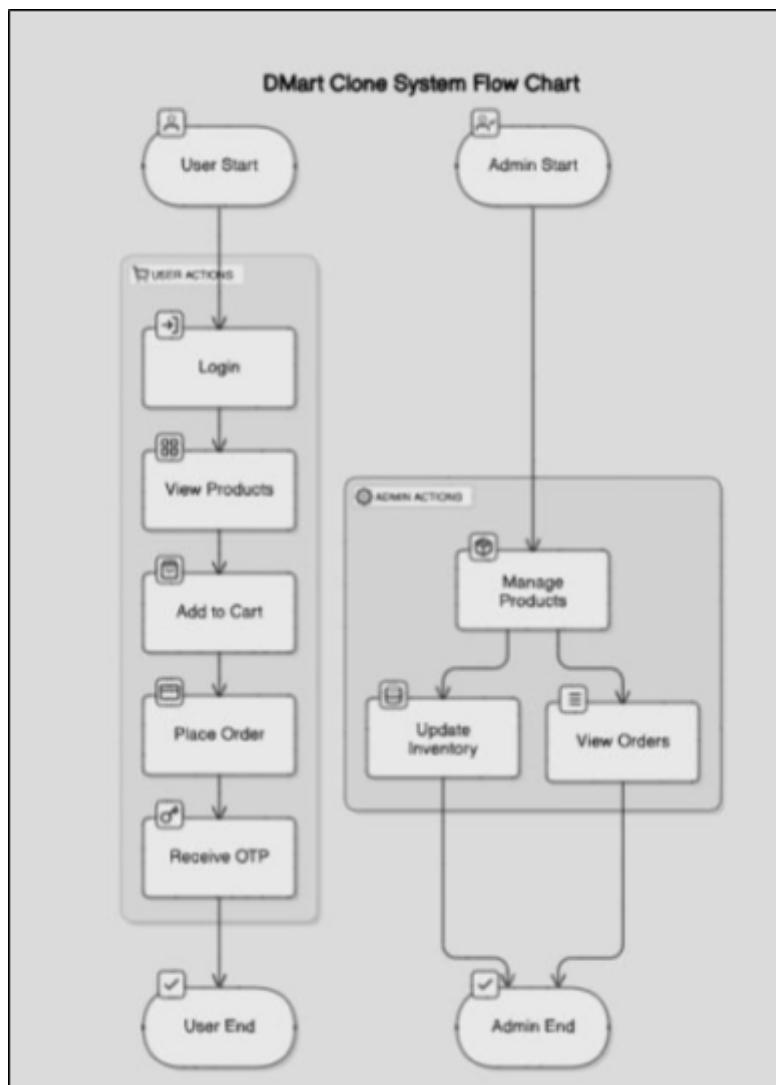


Figure 3.2: Data Flow Diagram

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### **3.6. Hardware Requirements**

- **Device Used:** Laptop
- **Processor:** Intel Core i5 (Quad-Core)
- **RAM:** 8 GB
- **Usage:** Suitable for initial development and testing

### **3.7. Software Requirements**

- **Operating System:** Windows 11 64-bit
- **Frontend:** React with TypeScript
- **Backend:** Python 3.11+ with Flask
- **Package Manager:** Node.js v18.16.1 (with npm)
- **Database:** MongoDB Atlas (Cloud-based NoSQL)
- **Code Editor:** Visual Studio Code (VS Code)
- **Version Control:** Git & GitHub for collaboration and code management

### **3.8. Code**

**GITHUB LINK -** <https://github.com/eeshachavan/WebX-Flask>

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## **CHAPTER: 4 RESULTS AND DISCUSSION**

# Chapter 4

## Results and Discussion

### 4.1. Introduction

This chapter documents the major outputs and screens of the The Souled Store Clone project.

### 4.2. Results of Implementation

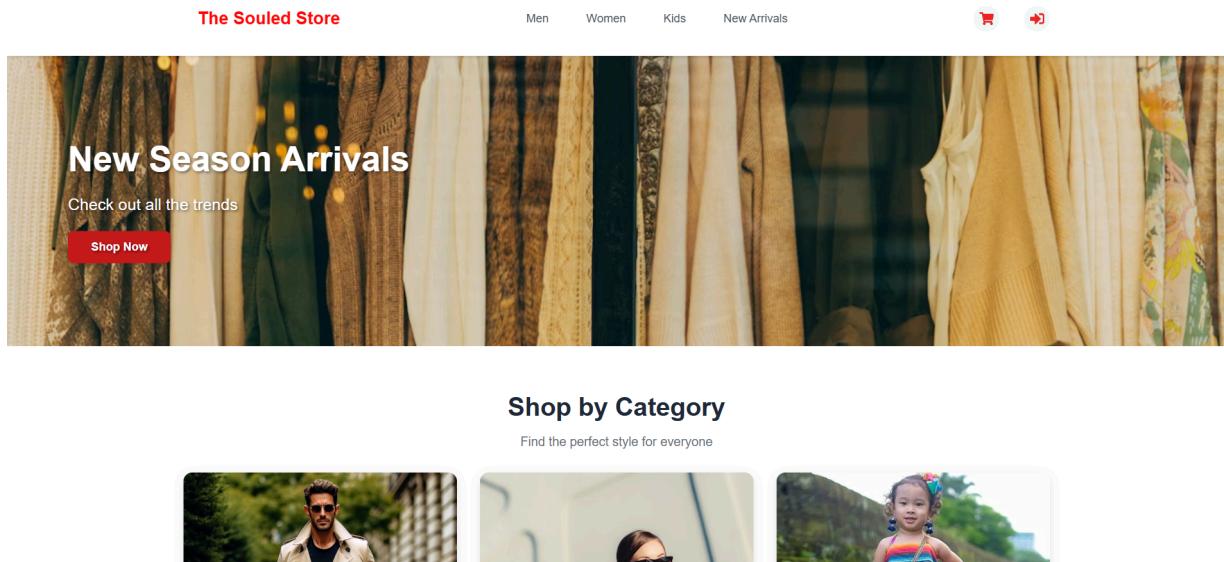


Figure 4.1: Home Page

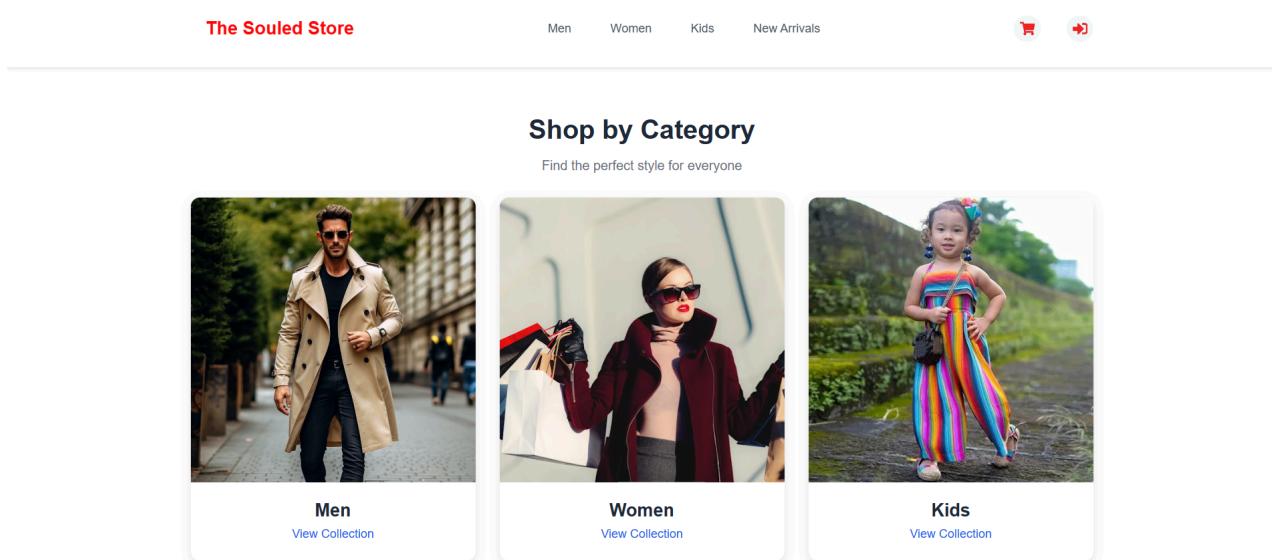


Figure 4.2: Home Page - 2

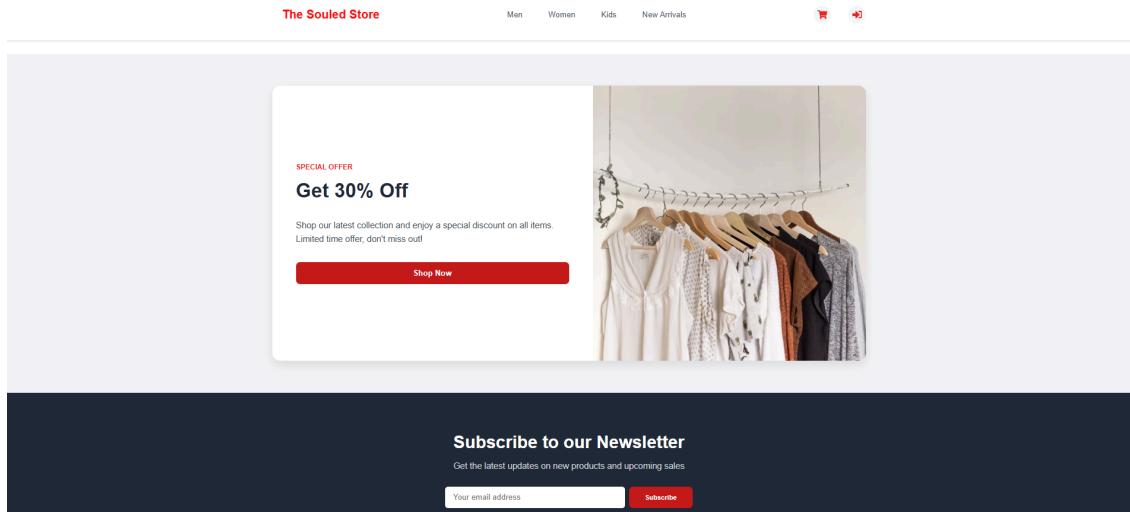


Figure 4.3: Home Page - 3

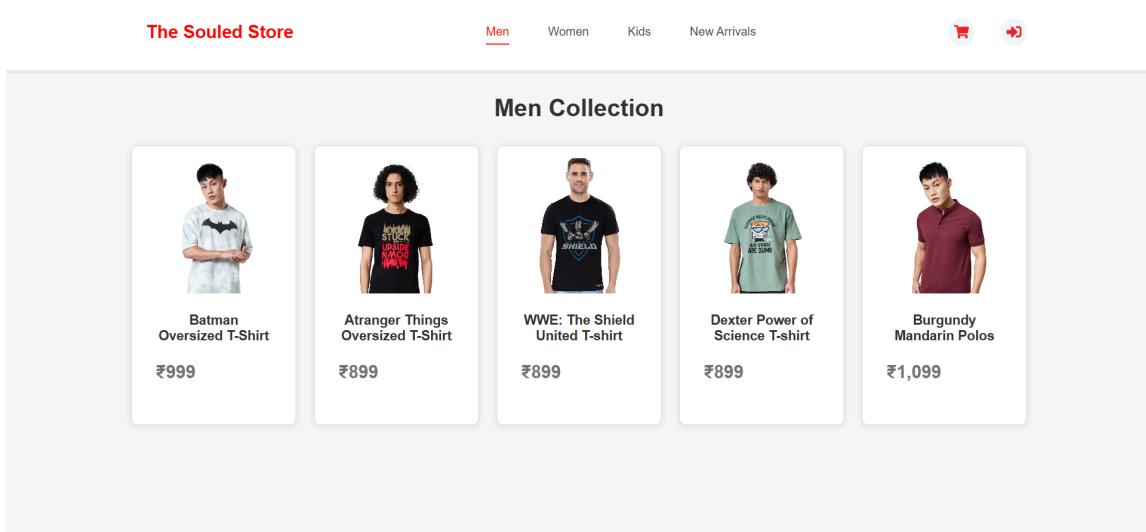


Figure 4.4: Categories Page

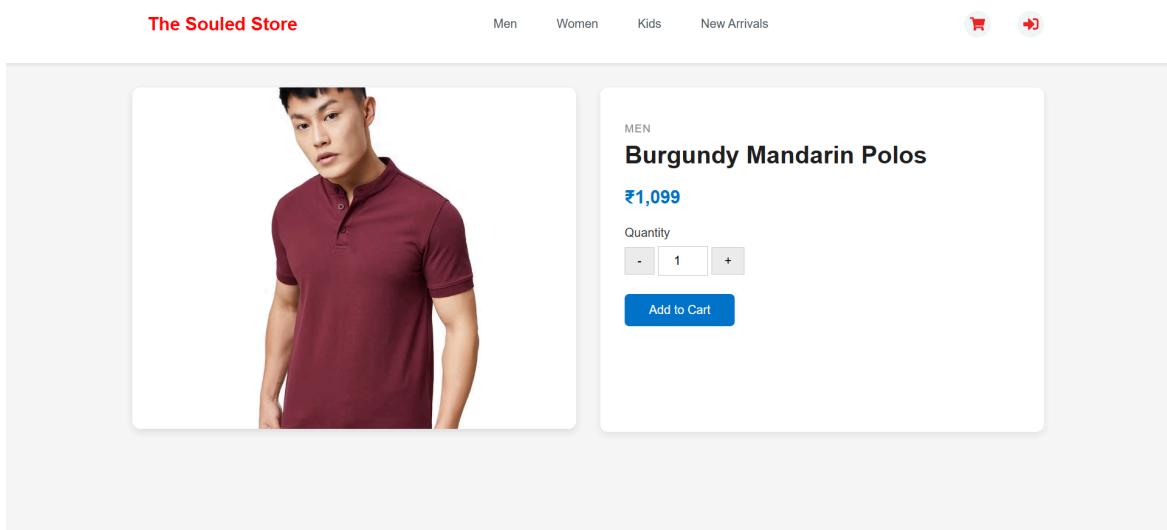


Figure 4.5: Product Details Page

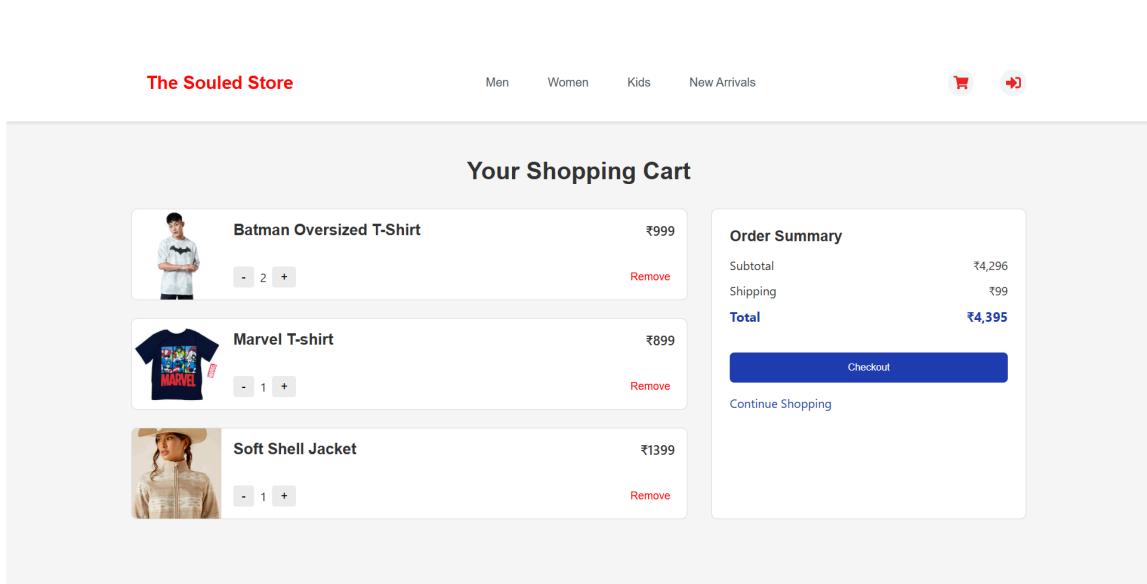


Figure 4.6: Cart Page

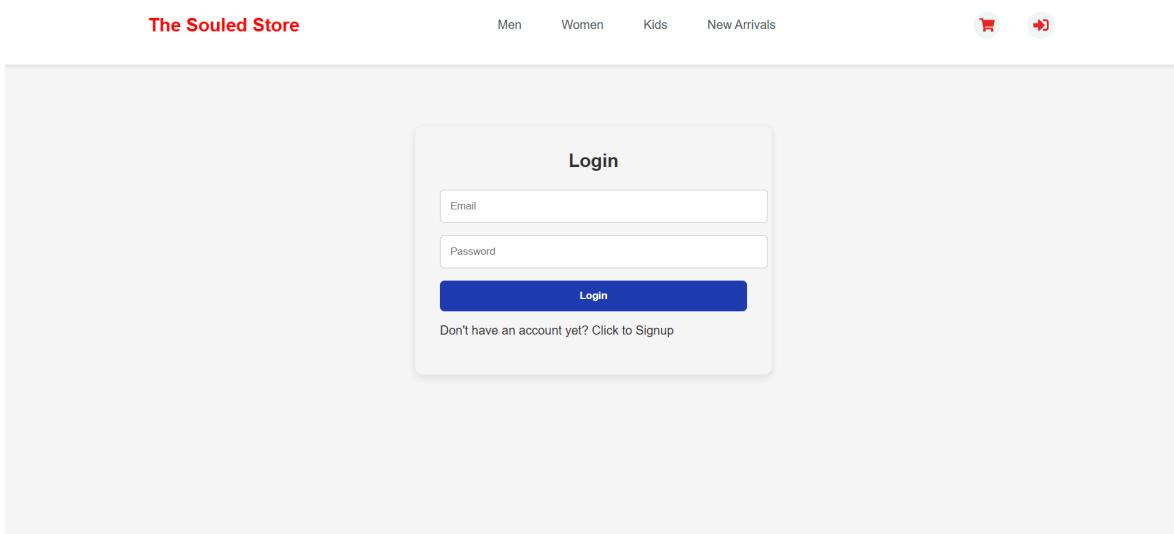


Figure 4.7: Login Page

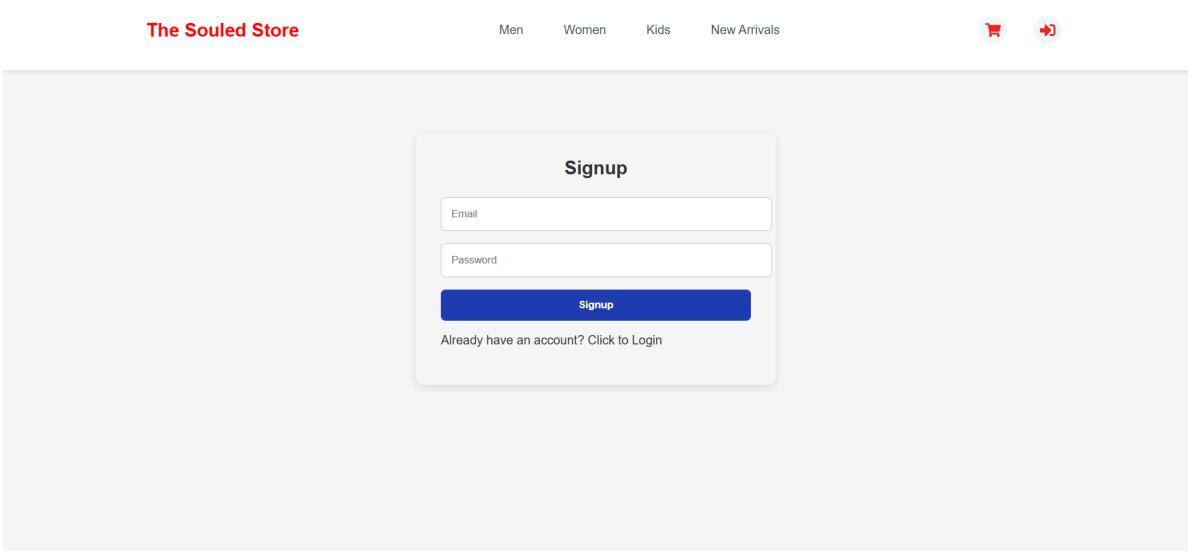


Figure 4.8: Signup Page

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### 4.3. Observation/Remarks

**The Souled Store Clone** platform has demonstrated strong potential as a learning-focused, full-stack e-commerce solution. Its core strengths lie in its modular architecture, intuitive user interface, and effective integration of modern technologies such as Flask for backend logic, React with TypeScript for frontend rendering, and MongoDB Atlas for scalable data storage. The application successfully simulates key features of a real-world online grocery platform, including product browsing, cart management, OTP-based login, and detailed product views.

Throughout development, the project showcased the importance of component reusability, clear API design, and effective state management using Redux. The integration of email-based OTP authentication added a practical layer of security, while the dynamic loading of products from the database demonstrated proficiency in real-time data handling.

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## **CHAPTER: 5 CONCLUSION**

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# **Chapter 5**

## **Conclusion**

### **1.1. Conclusion**

The Souled Store Clone project demonstrates effective use of modern web technologies to build a functional e-commerce platform. It strengthens understanding in full-stack development.

### **1.2. Future Scope**

The future scope of the "The Souled Store Clone – E-Commerce Platform" project is extensive and highly promising, with several potential enhancements that could significantly elevate the platform's usability, intelligence, and commercial viability.

- Firstly, integrating machine learning-based product recommendation systems will enhance user personalization by analyzing browsing history, cart behavior, and purchase patterns. This will allow the platform to suggest relevant products, thereby improving user engagement and increasing conversion rates.
- Secondly, implementing real-time order tracking will provide customers with up-to-date information on their order status, estimated delivery time, and live location tracking. This feature will boost user trust and satisfaction by offering transparency in the delivery process.
- Thirdly, expanding user profile features such as order history, saved preferences, and feedback mechanisms will create a more personalized and seamless shopping experience. It will also enable better data insights for future upgrades.
- Lastly, integrating secure payment gateways like Razorpay will allow users to complete purchases using a variety of payment methods, including UPI, credit/debit cards, and wallets. This will transform the prototype into a fully functional commercial platform, ready for real-world deployment.

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## Bibliography

- [1] K. Kandoi, R. R. N, S. G. Singh, R. Bediya, K. Mishra and S. K. Singh, "Comparative Analysis of Deep Learning Models for Fashion Recommendation in E-Commerce," 2023 IEEE Fifth International Conference on Advances in Electronics, Computers and Communications (ICAECC), Bengaluru, India, 2023, pp. 1-6, doi: 10.1109/ICAECC59324.2023.10560340.
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- [3] S. Shilaskar, O. Ghule and S. Gudgude, "Image Based Clothing Style Recommendation System," 2024 IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE), Bangalore, India, 2024, pp. 457-460, doi: 10.1109/ICWITE59797.2024.10503018.
- [4] R. S. Prasad, "A Study on NoSQL Databases and Their Use in E-Commerce Applications", International Journal of Data Engineering and Management, vol. 4, no. 3, pp. 19–26, 2022.