

Bazaar An Ecommerce Website

An Internship Report Submitted By

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Abstract

Bazaar is a comprehensive e-commerce website that combines a React frontend with a Java Spring Boot backend to deliver a seamless shopping experience. It offers wide range of features commonly found in basic e-commerce platforms, including a powerful search bar for product exploration. With Bazaar, users can browse, search and purchase products conveniently. The frontend of Bazaar is built using React, a popular JavaScript library for building user interfaces. This choice ensures a responsive and dynamic user experience, with smooth page transitions and real-time updates. The intuitive interface design allows users to navigate the website effortlessly, enhancing their overall shopping experience. On the backend, Bazaar leverages the Java Spring Boot framework, renowned for its robustness and scalability. Spring Boot provides a solid foundation for managing the server-side functionalities required for e-commerce operations. It enables seamless integration with databases, secure user authentication, and efficient API handling. The shopping cart feature in Bazaar allows users to add products to their cart while browsing the website. This feature enables users to collect and keep track of their selected items before proceeding to the checkout process. Users can easily add or remove products from their cart, ensuring a smooth and personalized shopping experience. Bazaar also offers secure password management functionalities to enhance user account security. Users can reset their passwords in case they forget or need to update them. The password reset process typically involves a verification step to ensure the account's ownership and protect user data. Additionally, users can change their passwords through a secure and straightforward process, providing them with control over their account security. Bazaar is a feature-rich e-commerce platform which provides seamless and secure shopping experience to user convenience and account security are prioritized.

Acknowledgement

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We would also like to extend our heartfelt thanks to **Mr. Rahul N K**, Associate Software Engineer, for his continuous support, valuable suggestions and technical assistance throughout our internship. His dedication and willingness to share his knowledge have been immensely helpful in our growth and development. In addition, we would like to express our gratitude to the HR department at Robosoft Technologies for their efforts in facilitating our internship journey.

In addition, we would like to express our gratitude to the HR department at Robosoft Technologies for their efforts in facilitating our internship journey. We extend our thanks to the entire HR team for their support, coordination, and for creating a positive and inclusive work environment.

Lastly, we would like to thank Robosoft Technologies for providing us with this opportunity to gain practical industry experience. The company's commitment to nurturing young talent and providing a platform for learning and growth has been commendable.

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Chapter 1

Introduction

This report presents an overview of the project completed during our internship at Robosoft, a renowned software development company. The project involved the development of a fully functional ecommerce shopping website named "Bazaar." Throughout the internship, we worked collaboratively, utilizing a range of technologies such as React, JavaScript, Java, and SpringBoot, with the support of tools like VScode and IntelliJ IDE. This introduction provides a brief background on Robosoft and its mission, highlighting their journey from a software developer to a holistic digital transformation partner.

Robosoft has been a key player in the software industry since its establishment in 1996. Over the years, we have witnessed remarkable advancements in technology and its profound impact on our lives. In 2008, Robosoft emerged as a pioneer in mobile app development, setting the stage for further growth. Their commitment to simplifying lives through technology solutions has been at the core of their philosophy. By partnering with businesses and investing in long-term relationships, Robosoft aims to create win-win scenarios and provide exceptional value to their clients.

In this report, we will outline the project's objectives, methodologies, and the technologies we employed to develop the "Bazaar" ecommerce website. Additionally, we will discuss the challenges encountered during the project and the solutions we implemented to overcome them. The report will also highlight the outcomes achieved, including the website's features, functionality, and overall success in meeting the project goals. Overall, this report aims to provide a comprehensive overview of the project completed during our internship at Robosoft, showcasing the practical application of various technologies and demonstrating our commitment to Robosoft's mission of simplifying lives through innovative digital solutions.

Chapter 2

Problem Statement

The project "Bazaar" is aimed to achieve the following objectives:

- **Develop a fully functional ecommerce shopping website:** The primary objective was to create a robust and user-friendly ecommerce platform called "Bazaar." The website would enable users to browse, search, and purchase a wide range of products conveniently. The goal was to design an intuitive interface and implement seamless functionalities to enhance the overall shopping experience.
- **Enable user registration and account management:** To enhance the user experience and enable personalized features, the project aimed to implement user registration and account management functionalities. This included features such as user authentication, password retrieval, and the ability for users to track their order history, manage their profiles, and update their preferences.
- **Ensure scalability and performance:** With the potential for website traffic to increase over time, it was important to design the system with scalability in mind. The objective was to develop a solution that could handle a growing number of users and transactions without compromising performance. This involved optimizing the website's loading speed, database queries, and overall system efficiency.

By focusing on these objectives, the project aimed to deliver a high-quality E-commerce website that would provide a seamless and secure shopping experience for users, while also meeting the needs and requirements of the client,

Chapter 3

Overview of Technologies Learned

The e-commerce website was developed using a range of technologies and tools to create a robust and functional platform. The frontend of the website was built using React, HTML, and CSS, providing a responsive and interactive user interface. The backend was developed using Spring Boot, a Java-based framework that facilitated efficient server-side programming and RESTful API development.

- For data storage and retrieval, SQL and MySQL were used. SQL allowed for effective database management, while MySQL served as the database management system to store and retrieve data securely.
- Postman API was utilized for testing and debugging the API endpoints, ensuring their functionality and interoperability with other systems. IntelliJ IDEA, an integrated development environment, provided a powerful and intuitive development environment for writing and managing code.
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- MySQL Workbench was employed as a visual tool for database design, modeling, and administration, simplifying the process of managing the MySQL database.

Overall, the combination of React, HTML, CSS, SQL, MySQL, Postman API, Spring Boot, IntelliJ IDEA, and MySQL Workbench formed a comprehensive tech stack that enabled the development of the e-commerce website, providing a seamless user experience and efficient backend operations.

Chapter 4

System Design

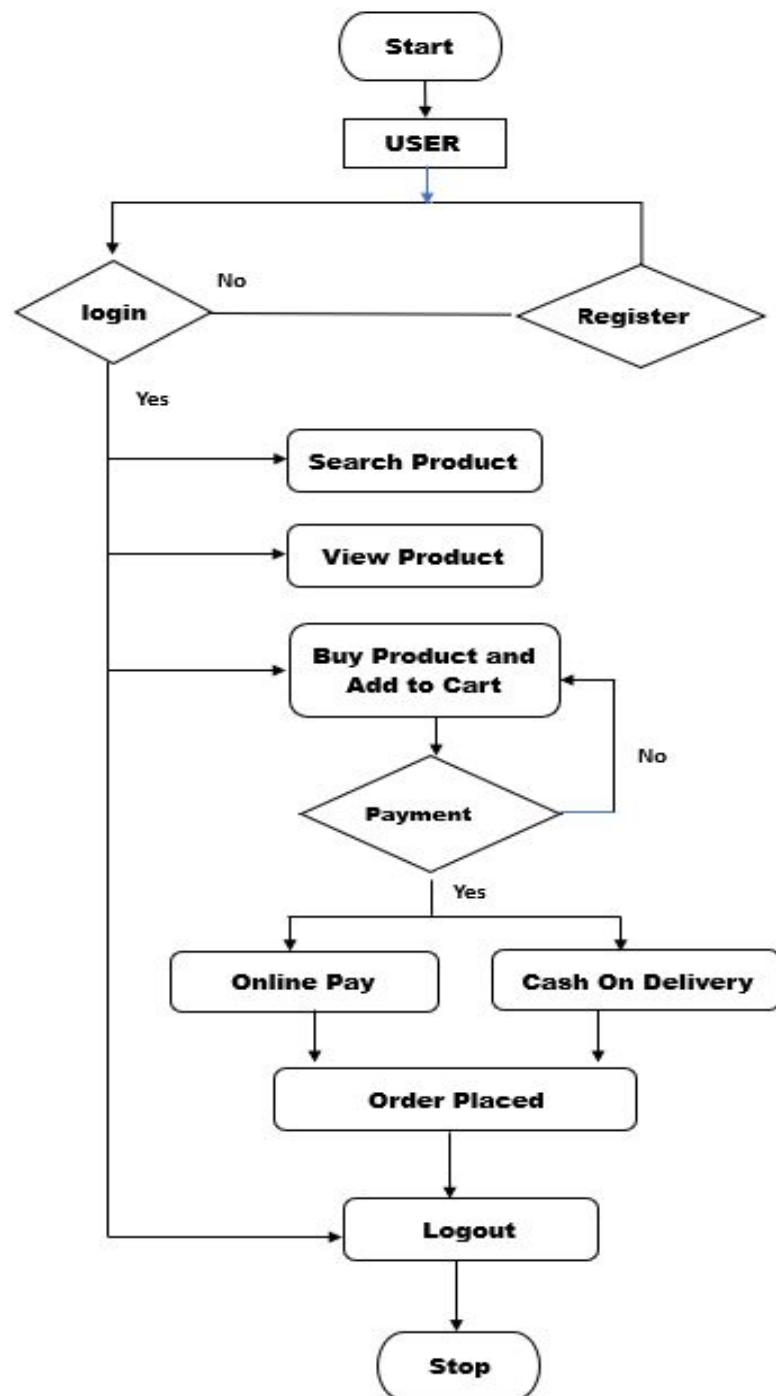


Figure 4.1: System Design

The system architecture of the e-commerce website is carefully designed to deliver a robust and user-friendly platform for online shopping. It comprises several key components that work together harmoniously, ensuring a seamless experience for buyers.

At the core of the architecture is the user authentication and registration component, which prioritizes the security and privacy of user accounts. It allows individuals to create their profiles, securely log in, and manage their personal information. By implementing stringent authentication protocols, the system ensures that only authorized users can access the website's features, protecting user data and fostering trust.

The product catalog management component is responsible for organizing and presenting the vast array of available products in an easily navigable manner. It encompasses functionalities such as adding new products, updating details, managing inventory levels, and categorizing items. This component plays a vital role in enhancing the user experience, enabling customers to explore and discover products efficiently.

The shopping cart functionality takes the user experience to the next level, providing a seamless and intuitive way for users to gather their desired products before making a purchase. It allows users to add items to their cart, view and modify the contents, and proceed to the secure checkout process. This component ensures a smooth transition from product exploration to finalizing the purchase, hence enhancing user satisfaction.

In summary, the system architecture of the e-commerce website is intricately designed to provide a comprehensive platform for online shopping. The components work harmoniously, focusing on user authentication, product catalog management, shopping cart functionality. By prioritizing user experience and security, the architecture creates a seamless and enjoyable environment for buyers.

Chapter 5

Results and Discussions

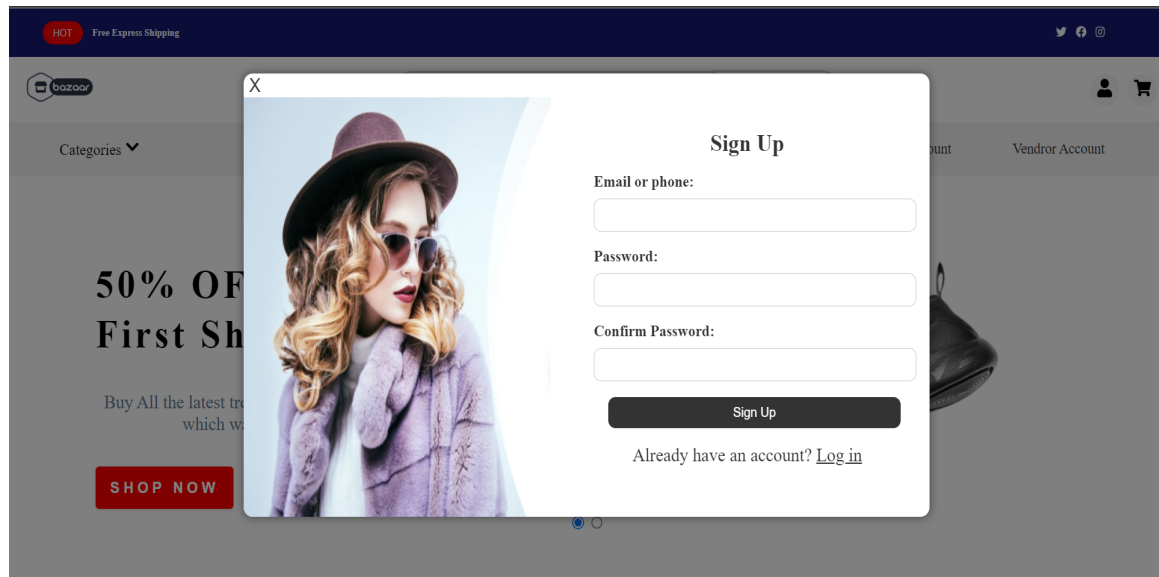


Figure 5.1: SignUp Page

The Figure 5.1 displays a sign-up form on the "Bazaar" ecommerce website, enabling users to create new accounts, providing a seamless and secure registration process for personalized access and enhanced user engagement.

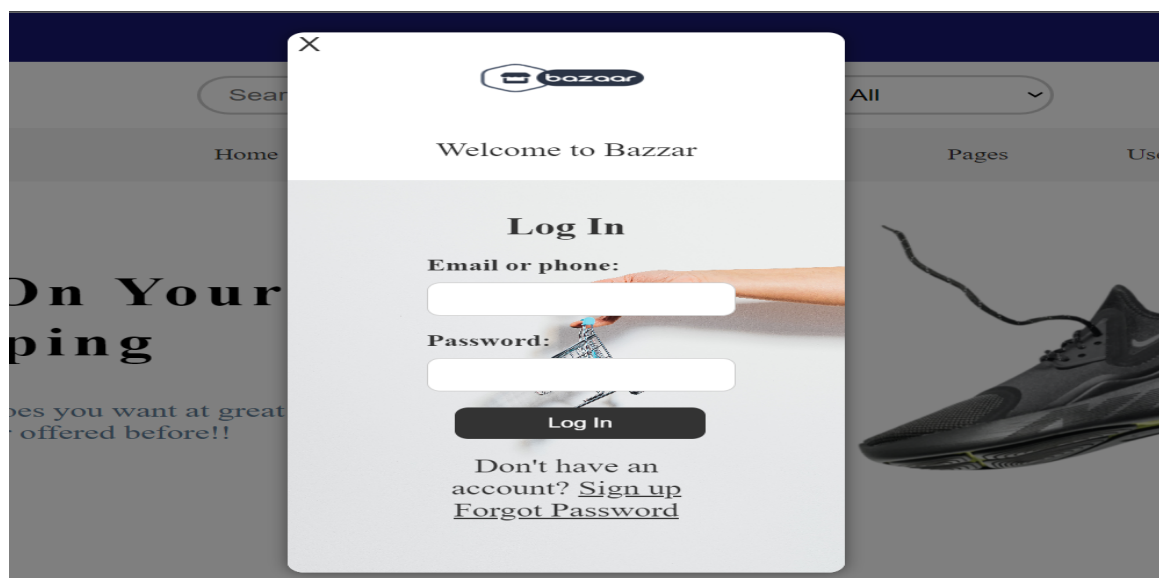


Figure 5.2: Login Page

The Figure 5.2 showcases the login modal on the "Bazaar" ecommerce website, providing users with a convenient and secure way to access their accounts. The

modal presents a sleek design, allowing users to enter their login credentials.

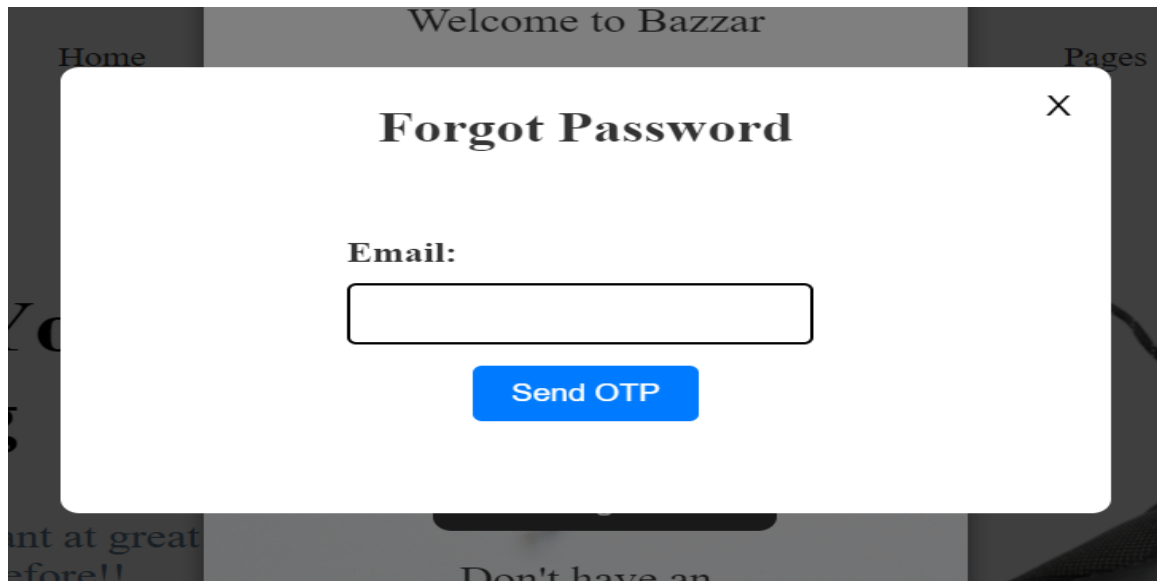


Figure 5.3: Forgot Password

The Figure 5.3 showcases the "Forgot Password" feature on the "Bazaar" e-commerce website, allowing users to retrieve their account access by entering their email address and receiving a one-time password (OTP).

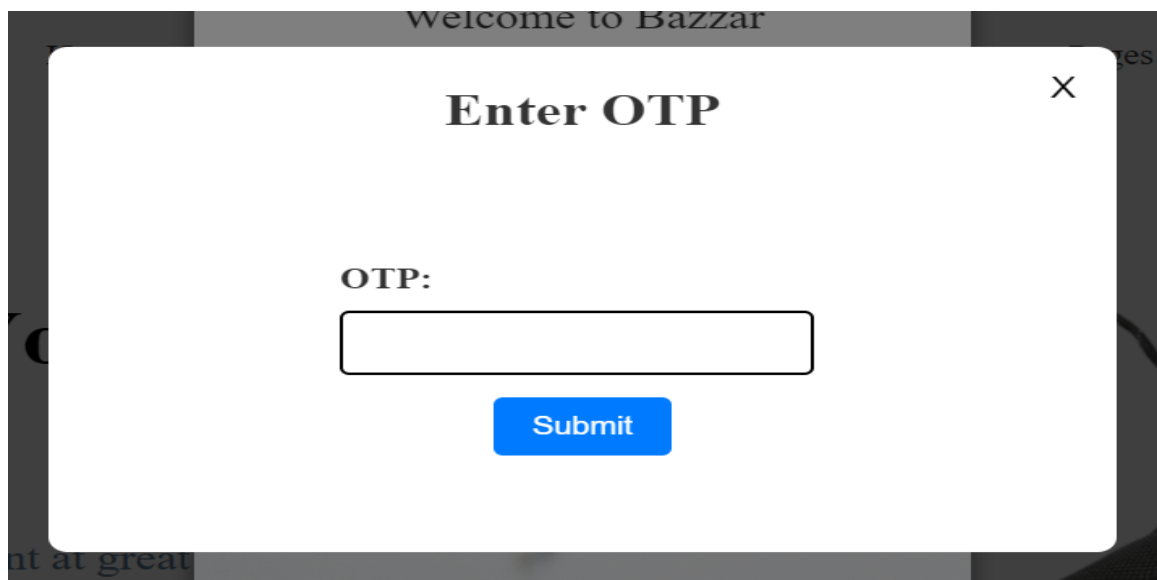
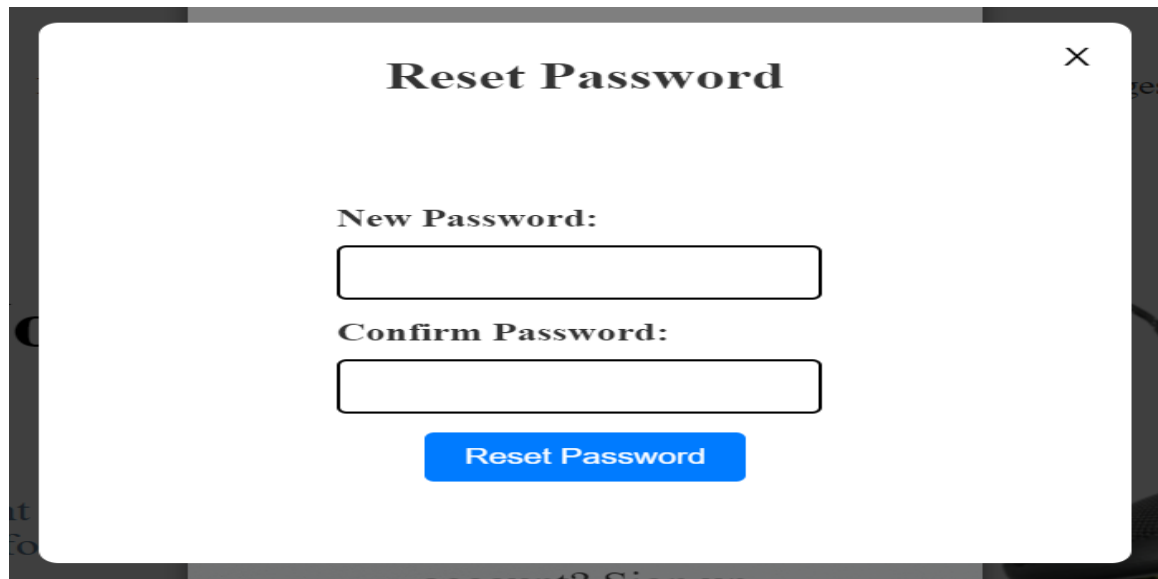


Figure 5.4: OTP Verification

The Figure 5.4 displays an OTP entry modal on the "Bazaar" e-commerce website, allowing users to securely verify their identity by entering the received One-Time Password, ensuring a seamless and protected login experience.

A modal window titled "Reset Password" with a close button (X) in the top right corner. It contains two input fields: "New Password:" and "Confirm Password:". Below the input fields is a blue button labeled "Reset Password".

Reset Password

New Password:

Confirm Password:

Reset Password

Figure 5.5: Reset Password

The Figure 5.5 displays a sign-up form on the "Bazaar" ecommerce website, enabling users to create new accounts, providing a seamless and secure registration process for personalized access and enhanced user engagement.

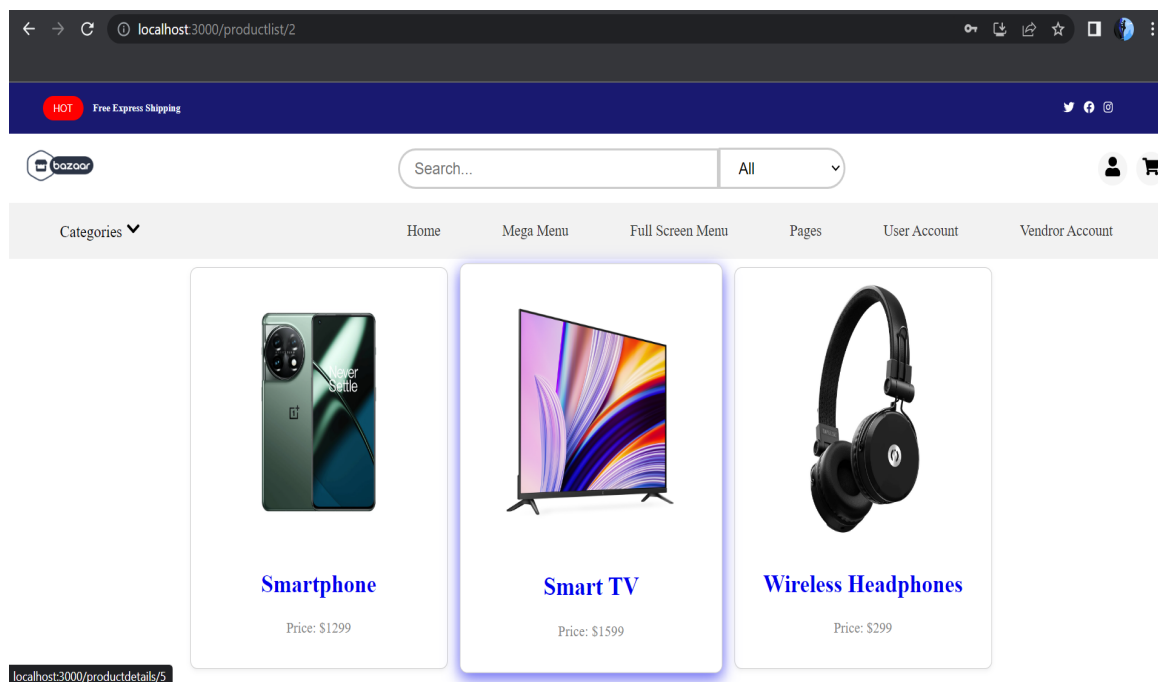


Figure 5.6: Electronics Category

The Figure 5.6 displays the electronics page on the "Bazaar" ecommerce website, featuring a wide variety of electronic products, ranging from cutting-edge gadgets to essential home appliances, providing customers with a comprehensive selection to meet their technological needs.

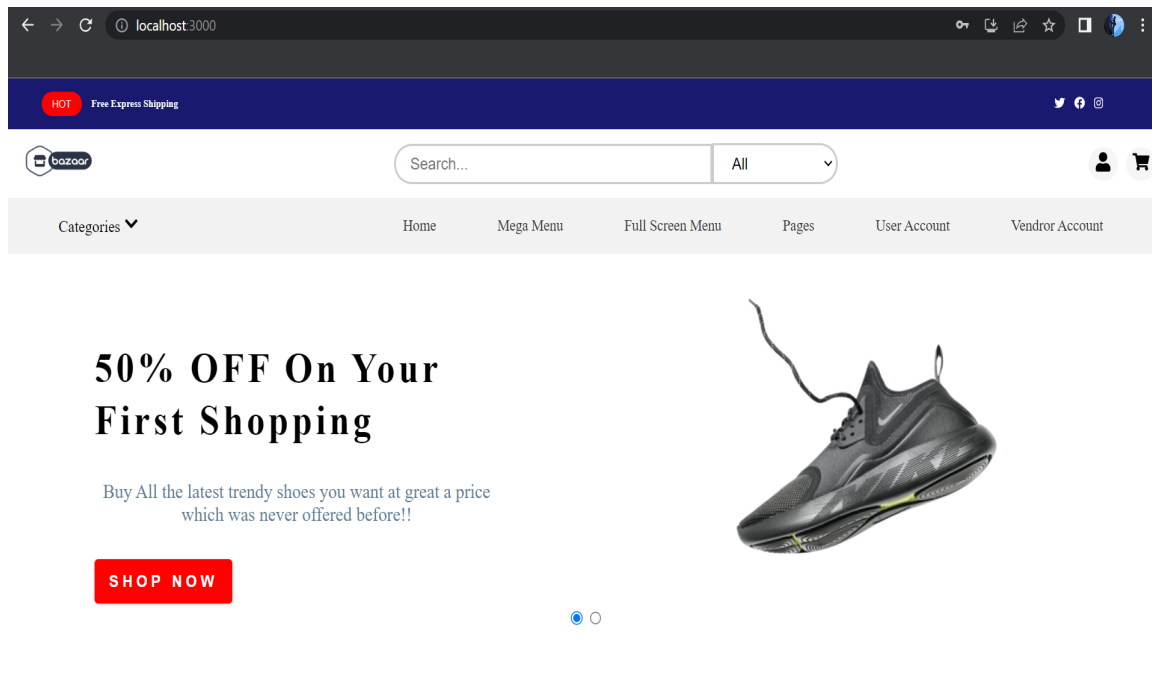


Figure 5.7: Home Page

The Figure 5.7 represents the home page of the "Bazaar" ecommerce website, featuring a visually appealing layout and intuitive design. It serves as the gateway to a seamless shopping experience, offering easy navigation to various product categories and highlighting featured promotions to engage users.

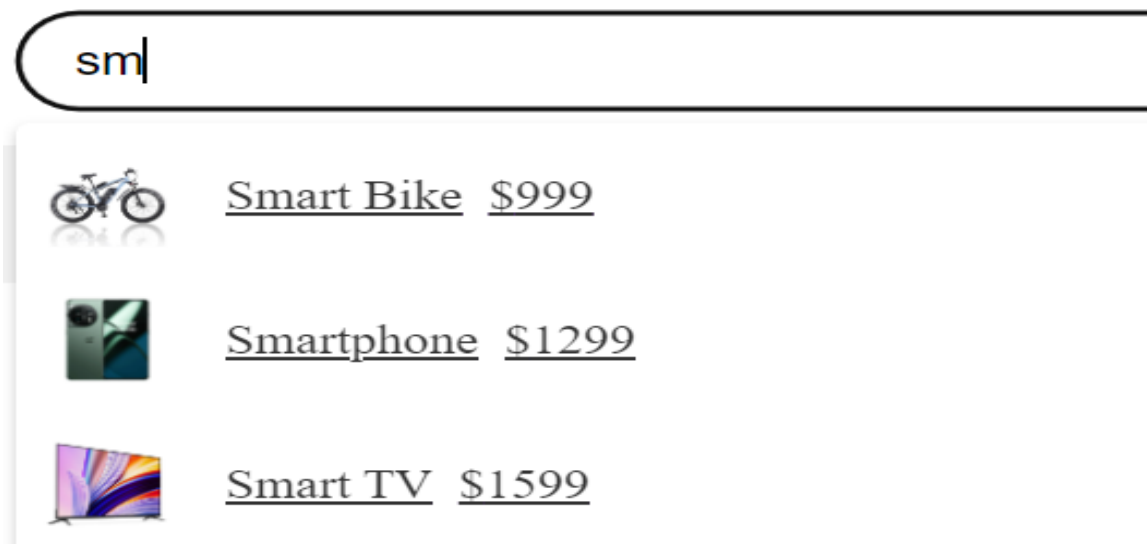


Figure 5.8: Search Bar

The Figure 5.8 displays a search bar on the "Bazaar" ecommerce website, enabling users to easily search for products, providing a convenient and efficient way to find desired items and enhance the overall shopping experience.

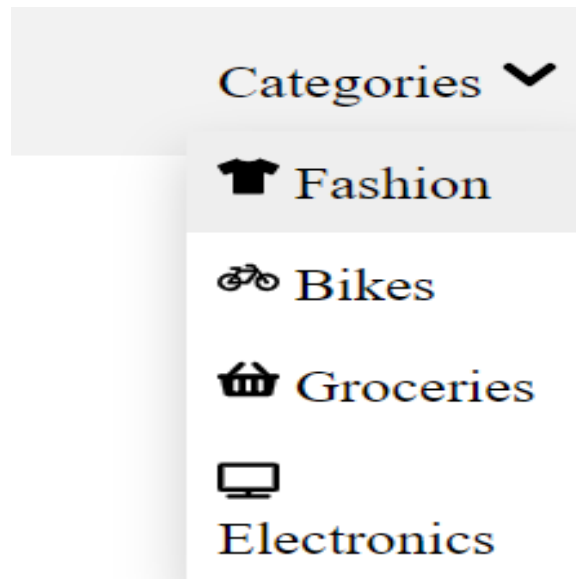


Figure 5.9: Categories

The Figure 5.9 represents the four main categories on the "Bazaar" ecommerce website: fashion, electronics, bikes, and groceries. Users can effortlessly explore and shop for their desired items within these categories, ensuring a convenient and enjoyable shopping experience.

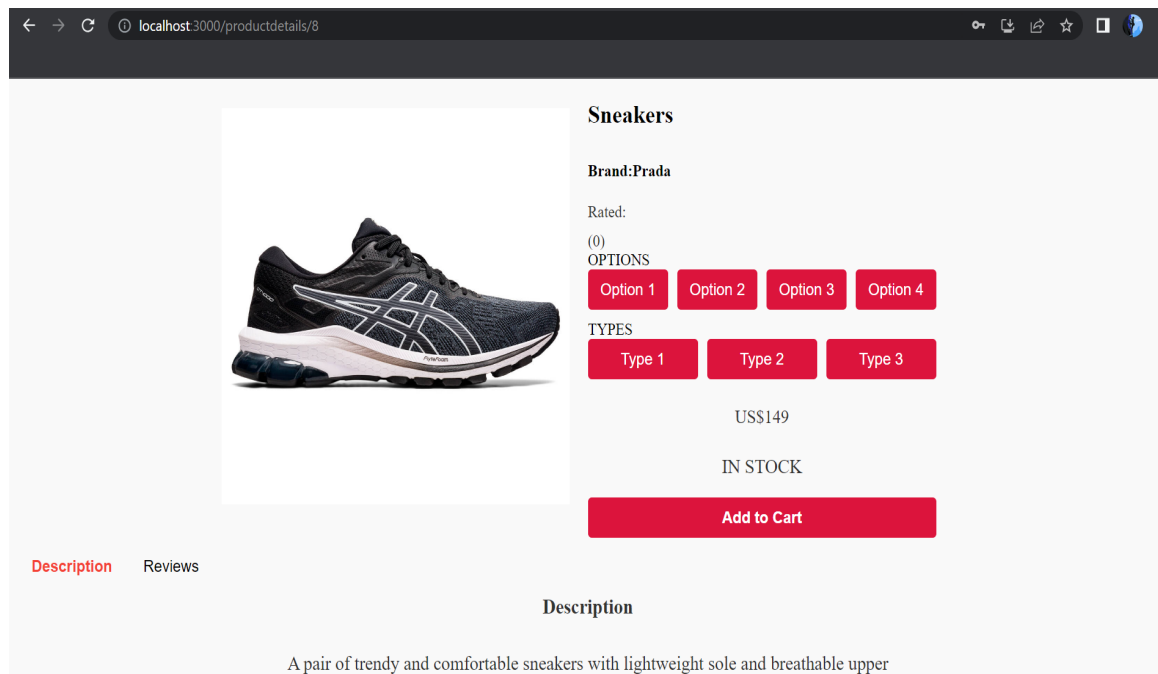


Figure 5.10: Product View

The Figure 5.10 displays a product page on the "Bazaar" ecommerce website, presenting comprehensive details and customer reviews, enabling users to make informed purchasing decisions in a visually appealing and user-friendly interface.

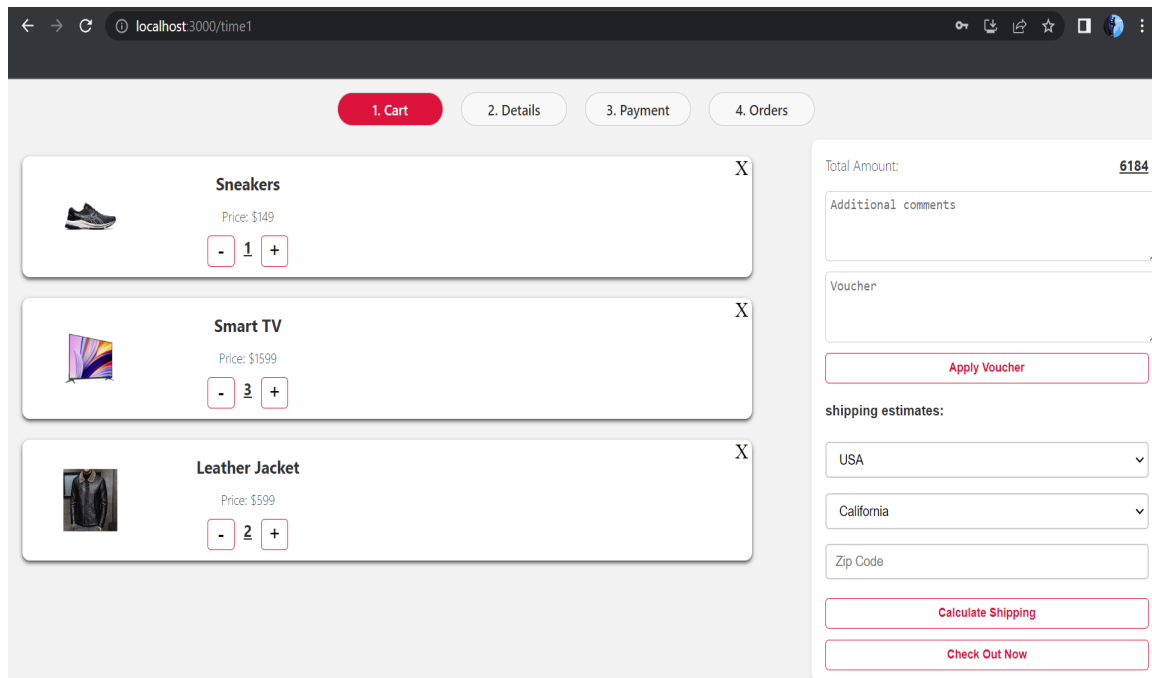


Figure 5.11: Shopping Cart

The Figure 5.11 displays a filled shopping cart on the "Bazaar" ecommerce website, representing a seamless shopping experience. It highlights the convenience of selecting and purchasing multiple items in one place. The image encapsulates the diverse product offerings and user-friendly interface of the platform.

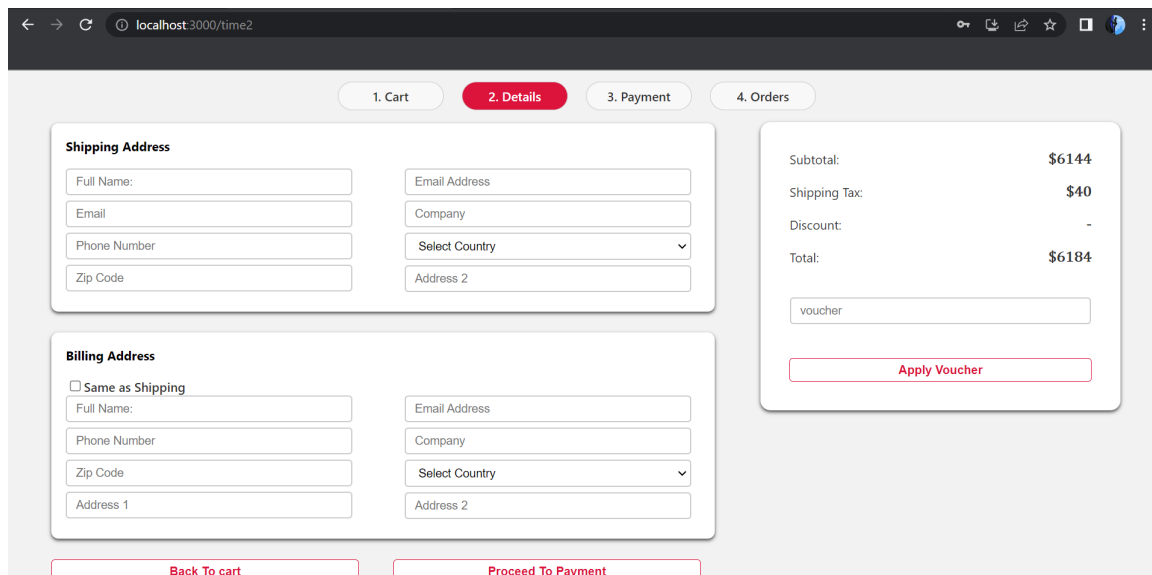


Figure 5.12: Details

The Figure 5.12 depicts the details page on the "Bazaar" ecommerce website, allowing users to enter shipping and billing addresses, as well as apply voucher

codes. This page streamlines the checkout process and provides a seamless experience for customers to input necessary information and avail promotional discounts.

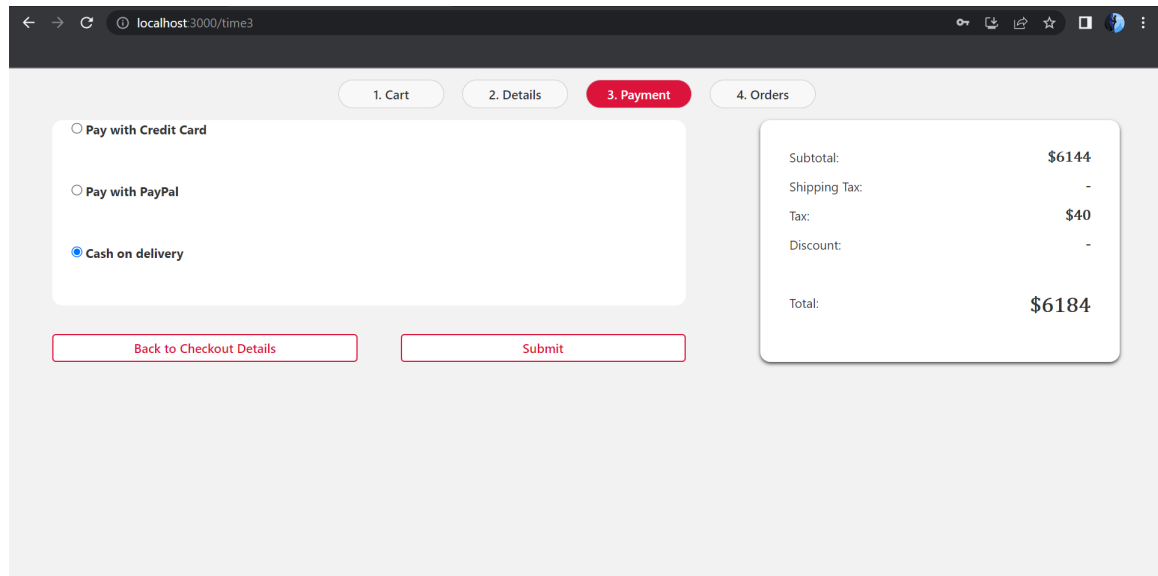


Figure 5.13: Payment

The figure 5.13 displays a payment modal on the "Bazaar" ecommerce website, allowing users to securely enter their payment details and complete their transactions, ensuring a seamless and hassle-free checkout process.

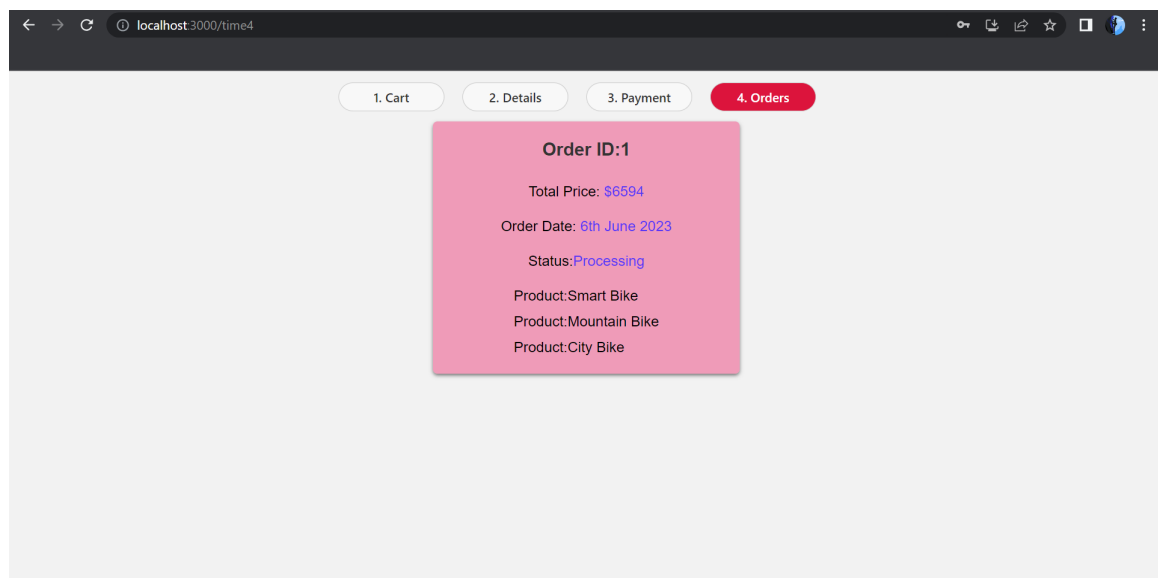


Figure 5.14: Orders

The Figure 5.14 presents the "Orders Placed" section on the "Bazaar" ecommerce website, offering users a concise overview of their purchase history, including order details and tracking information, providing a convenient way to track and manage their orders.

Chapter 6

Conclusions

The development of "Bazaar" ecommerce shopping website project was a significant undertaking that showcased our team's skills and dedication. Throughout the development process, we successfully implemented a wide range of technologies, including React, JavaScript, Java and SpringBoot, to create a fully functional and user-friendly platform. The robust product management system allowed administrators to efficiently handle the website's inventory, ensuring accurate stock levels and organized product categories. Additionally, the user registration and account management functionalities provided users with personalized experiences and the ability to track their order history and manage their profiles.

The "Bazaar" project not only showcased our technical skills but also emphasized the importance of teamwork and collaboration. Throughout the development process, we worked closely as a team, leveraging each other's strengths and expertise to overcome challenges and deliver a high-quality product.

This project provided us with valuable hands-on experience in building a real-world ecommerce website, equipping us with practical knowledge and skills that will undoubtedly benefit us in our future careers. The "Bazaar" project stands as a testament to our dedication, innovation, and ability to create solutions that cater to the needs and expectations of modern-day online shoppers.

Overall, the successful completion of the "Bazaar" project has been a significant milestone, representing our team's commitment to delivering exceptional results. We are proud of our accomplishments and grateful for the opportunities this project and internship have provided us to grow both personally and professionally.

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