

**NearYou-LOCATION BASED E-COMMERCE WEBSITE TO
PROMOTE LOCAL BUSINESSES.**

BY

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FINAL YEAR DESIGN PROJECT REPORT

This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

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DHAKA, BANGLADESH

July 2024

APPROVAL

This Project titled "NearYou - Location based E-commerce Website to Promote Local Business", submitted by Syed Sadar Uddin Ahmed Aunek to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 14 July, 2024.

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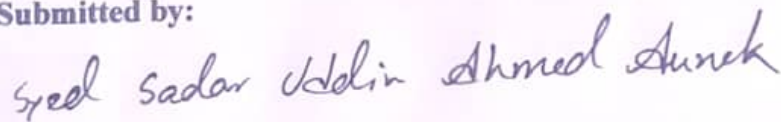
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ACKNOWLEDGEMENT

First, I express my heartiest thanks and gratefulness to almighty for His divine blessing making it possible for me to complete the final year project successfully.

I am grateful and wish my profound indebtedness to Mr. Md. Sazzadur Ahmed, Assistant Professor, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of my supervisor to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts, and correcting them at all stages have made it possible to complete this project.

I would like to express my heartiest gratitude to the Dr. Sheak Rashed Haider Noori, for his kind help in finishing project and also to other faculty members and the staff of the Department of CSE, Daffodil International University.

I would like to thank my entire course mate in Daffodil International University, who took part in this discussion while completing the course work.

Finally, I must acknowledge with due respect the constant support and patience of my parents.

ABSTRACT

The creation and deployment of a location-based e-commerce platform specifically designed for Bangladesh is presented in this project report. This platform's main goal is to match buyers with the closest sellers, improving convenience and cutting down on delivery times. The solution uses geolocation to find the closest available vendors, increasing productivity and client satisfaction.

The platform prioritizes neighboring sellers in search results in an effort to support local companies in addition to easing consumer transactions. In addition to helping small and medium-sized businesses (SMEs), this promotes local economic development. To guarantee a flawless purchasing experience, the platform has features including secure payment gateways, real-time inventory updates, and user-friendly interfaces.

The project includes educational components that emphasize the advantages of e-commerce and entrepreneurship in order to promote a business-oriented mindset among the Bangladeshi populace. To assist prospective business owners in successfully establishing and operating online stores, workshops, webinars, and online tools are offered.

It is anticipated that the incorporation of this e-commerce platform will boost regional economies, lower unemployment rates, and encourage creativity. Through the initiative, people in Bangladesh will be equipped with the means and know-how to engage in the digital economy and build a sustainable and inclusive economic environment.

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CHAPTER 1

Introduction

1.1 Introduction:

The e-commerce landscape has changed significantly in this age of digital revolution, offering local firms both opportunities and challenges. The goal of this individual project is to create a location-based e-commerce platform that is especially designed for Bangladesh and uses a novel method of bringing customers and sellers together.

Users of the platform can create two separate profiles: a business profile for selling goods and services and a personal profile for making purchases. Individual customers are served by the personal profile, which allows them to look for and buy products from the closest sellers. The platform makes sure that consumers can locate nearby merchants by utilizing geolocation technology, which speeds up delivery and improves convenience.

The business profile, on the other hand, is intended for nearby merchants and business owners. They can use it to register their companies, keep an eye on their inventory in real time, and interact with possible clients immediately. For small and medium-sized businesses (SMEs), who frequently find it difficult to compete in the huge digital marketplace, this function is very helpful. Through emphasizing local businesses in search results, the platform hopes to encourage and facilitate the expansion of these firms.

This project also has an educational component to promote e-commerce and entrepreneurship in Bangladesh. Prospective business owners can get advice on creating and running online stores from seminars, webinars, and online resources. The goal of this educational outreach is to encourage people to adopt digital commerce and acquire the abilities required for success.

1.2 Motivation:

The desire to empower small and medium-sized businesses (SMEs) in Bangladesh by giving them access to a competitive e-commerce platform and promoting local business growth is the driving force behind this project. By utilizing geolocation technology to link customers with nearby sellers and shorten delivery times and prices, it seeks to improve the overall customer experience. By promoting more local business dealings, employment creation, and community investment, this project aims to promote economic development. Furthermore, it encourages digital entrepreneurship by providing people with the tools and knowledge needed for e-commerce. The project helps firms move to the digital marketplace for resilience and continuity in response to post-pandemic needs. All things considered, it makes use of technology to build an easy-to-use, effective platform that promotes regional creativity and a long-lasting, inclusive e-commerce ecosystem in Bangladesh.

1.3 Objective of the project:

- **Enhance Local E-commerce Connectivity:**

Create a location-based e-commerce network that effectively links customers with nearby sellers, cutting down on shipping and delivery times.

- **Support Small and Medium-Sized Enterprises (SMEs):**

Give local companies a platform where they can simply sell their goods, keep track of their inventory, and connect with more customers in order to empower them.

- **Promote Local Economic Growth:**

Encourage consumers to purchase locally made goods in order to boost local business development.

- **Improve Customer Experience:**

Provide a seamless online shopping experience by letting customers utilize an intuitive interface to swiftly and easily find products from local sellers.

- **Cultivate Entrepreneurial Spirit:**

By offering training materials like webinars, workshops, and online manuals to help people develop an entrepreneurial mindset and provide them the tools they need to succeed in e-commerce.

- **Dual-Profile System Implementation:**

Create and put into place a system that enables users to establish both personal and business profiles, meeting the demands of both local suppliers and individual customers.

- **Promote Innovation and Technology Adoption:**

To boost efficiency and competitiveness, the local business community should be encouraged to adopt cutting-edge technologies and creative solutions.

- **Foster Inclusive Economic Participation:**

Establish an inclusive online marketplace that gives all kinds of companies, regardless of size, an equal chance to take part in the online economy.

- **Continuous Improvement:**

It is imperative to integrate user feedback into the platform and make constant improvements to address the changing demands of local businesses and customers. This will ensure the platform remains relevant and sustainable over the long run.

By introducing these objectives, the project aims to create a dynamic and thriving e-commerce ecosystem in Bangladesh that will benefit consumers, local businesses, and the broader economy.

1.4 Aim of the project

The objective of the project is to develop a dependable, location-based e-commerce platform that meets the unique needs of the Bangladeshi market. By reducing shipping costs and times, this platform seeks to enhance the shopping experience by connecting buyers with the closest suppliers. With an emphasis on small and medium-sized enterprises (SMEs), it also aims to empower local businesses by providing them with the knowledge and abilities necessary to successfully compete in the digital economy. The project's objectives are to use technology, promote entrepreneurship, and assist local economic growth in order to create a creative, inclusive, and sustainable e-commerce environment in Bangladesh.

1.5 Problem Statement:

In Bangladesh, small and medium-sized enterprises (SMEs) face significant challenges competing with larger online marketplaces. Despite the potential of e-commerce to drive economic growth, local businesses struggle with long delivery times, high shipping costs, and limited consumer access to their products. These obstacles are exacerbated by the post-pandemic shift towards online shopping, which has intensified the need for efficient and cost-effective delivery solutions. The existing e-commerce platforms predominantly cater to larger enterprises, leaving SMEs at a disadvantage due to their inability to offer competitive delivery times and prices. This results in reduced visibility and market access for local businesses, hindering their growth and economic contribution.

It is imperative to create a location-based e-commerce platform that is customized to Bangladesh's unique requirements in order to address these problems. By linking customers and local sellers, this network seeks to cut down on shipping expenses and delays. This project aims to build an inclusive and sustainable e-commerce ecosystem by supporting small enterprises in the community and stimulating economic growth. The project will also offer instructional materials to foster digital entrepreneurship, enabling SMEs to efficiently use technology.

In conclusion, by developing a platform that boosts local firms' competitiveness, encourages local economic development, and encourages innovation in the post-pandemic e-commerce scene, the project meets the pressing need to help local businesses in Bangladesh.

1.6 Research Methodology:

Data Collection:

There are two points,

- 1. Seller's perspective;**
- 2. Buyer's perspective;**

Gaining comprehensive feedback can greatly increase strategies' efficacy. Through the utilization of the feedback option, makes able to obtain important information from users. Furthermore, concentrating on a certain group through surveys and interviews will yield a more profound comprehension of their requirements and inclinations. Both quantitative and qualitative analysis can be carried out after data collection to pinpoint important elements associated with developing trends and preferences. With this all-encompassing strategy, will help to more precisely customize plans, making sure they meet user expectations and produce better results.

1.7 Conclusion:

A location-based e-commerce platform for Bangladesh aims to address issues faced by consumers and SMEs by reducing delivery times and costs. The platform uses technology to link customers with nearby vendors, increasing local businesses' competitiveness. Surveys, interviews, and focus groups will gather user feedback for personalized adjustments. The project supports local economic growth, digital entrepreneurship, and aims to create a sustainable, equitable marketplace.

1.8 Chapter Layout:

Chapter 1 of the book included an overview of the project, an objective, aim, motivation, problem statement, and data collecting for the research. Tools and technologies will be covered in Chapter 3. System analysis and designs will be covered in Chapter 4. Design, Development, Testing, and Implementation will all be covered in Chapter 5. Impact on Society, Environment, and Sustainability will be covered in Chapter 6. The summary and conclusion are covered in detail in Chapter 7, along with examples of potential future initiatives

CHAPTER 2

Background Study

2.1 Introduction:

Bangladesh is undergoing a significant digitization transition due to its rapidly growing economy and internet usage. However, small businesses struggle to compete with larger online marketplaces, leading to issues like long delivery waits and limited access to locally produced goods. A customized e-commerce strategy is needed to address these challenges, allowing for shorter delivery times, reduced shipping costs, and improved purchasing experiences. The COVID-19 pandemic has highlighted the importance of flexible business structures, and the project aims to create a digital marketplace that is inclusive, sustainable, and promotes innovation and economic growth. Continuous enhancements and user feedback are being considered to ensure the platform meets local business and customer needs.

2.2 Existing system

Currently, well-known websites like Daraz and AjkerDeal control the e-commerce market in Bangladesh. These platforms are well-established, have a large product selection, and have well-known brands. They do, however, confront formidable logistical obstacles. Long delivery times and expensive shipping are the results of centralised warehousing, which primarily affects small and medium-sized businesses (SMEs). These SMEs find it challenging to compete successfully on these platforms due to their lack of resources and visibility. Furthermore, the emphasis on mass-market products obscures local commodities, which are essential to the growth of local economies. These platforms' technology assistance is frequently insufficient for the particular requirements of SMEs, which further restricts their ability to expand and compete [1][2].

2.3 Comparative Studies

By linking customers with local vendors, the proposed location-based e-commerce platform seeks to solve the drawbacks of the current systems and drastically cut down on delivery times and expenses. Local companies become more visible and competitive with this proximity-based strategy. The platform promotes community economic growth and sustainability by emphasizing locally produced goods. The integration of cutting-edge technical solutions, such as real-time tracking, geolocation services, and effective inventory management, simplifies operations and offers a flawless user experience. The portal also provides SMEs with tailored instructional materials to help them advance their digital capabilities and business procedures. [3][4].

2.4 Challenges

The suggested platform has many benefits, but it also has certain drawbacks. The platform may need a large infrastructure and technological investment, and the initial setup expenses can be substantial. It could take some time for the market to adapt as buyers and sellers become used to the new structure. To guarantee the platform's success, effective administration and coordination of local distribution networks are essential. Furthermore, in order to promote uptake and usage, it will be crucial to educate consumers and SMEs about the features and advantages of the platform [1][3].

2.5 In summary

The suggested location-based e-commerce platform offers significant advantages over current systems in spite of the difficulties. The platform provides a more sustainable, equitable, and effective e-commerce environment suited to Bangladesh's needs by overcoming logistical and technological deficiencies. By offering quicker and more affordable delivery choices, it improves the shopping experience for customers and supports local companies, promoting digital entrepreneurship and local economic growth. The platform has the power to completely change Bangladesh's e-commerce scene with the correct funding and thoughtful execution [2][4].

CHAPTER 3

Tools and Technologies

3.1 Introduction:

The creation of dynamic, fully functional websites and applications need the usage of a broad range of tools and terms. I use on the front end, with the help of React JS, tailwind CSS, Daisy-UI, React Router, React Hook, and other components, created an incredible dynamic website. Because this website might have a responsive design, I will use it on both a PC and a mobile device. The online store is updated often because of Node JS, Firebase, and MongoDB. All of data will be kept in a MongoDB database, and Node JS [13] will be used to retrieve a single record for the website.

3.2 Required Tools and Technologies

1. HTML
2. CSS
3. Tailwind
4. Javascript
5. React
6. React Router
7. React Hook
8. Daisy-UI
9. Material-UI
10. MongoDB
11. Express Js
12. Node Js
13. React Bootstrap
14. Firebase
15. Vite
16. IDE: MongoDB Atlas, VS code.

- **HTML:**

The common markup language used to construct web pages is called HTML, or HyperText Markup Language. It offers the foundational framework for a website, which is subsequently improved and altered by additional technologies like CSS and JavaScript. HTML is made up of several components that can be utilised to wrap or enclose different parts of the material to alter its appearance or behaviour.[5]

- **CSS:**

A stylesheet language called CSS, or Cascading Style Sheets, is used to specify how an HTML or XML page is presented. With CSS, you may specify how HTML elements should appear and manage the layout of several web pages simultaneously. It is a fundamental technique in web development, much as HTML and JavaScript.[6]

- **Tailwind**

Tailwind CSS is a utility-first framework that gives developers the ability to write bespoke designs straight into their HTML. It provides a wide range of low-level utility classes for styling elements, which facilitates high customization and quick development.[7]

- **Javascript**

JavaScript is a versatile programming language essential for web development, enabling dynamic content and real-time updates. It's versatile and multi-paradigm, used for client-side and server-side development, and is a cornerstone of modern web applications due to its robust ecosystem.[8]

- **React**

React is a JavaScript user interface library that was mostly created and is kept up to date by Facebook. With a declarative and component-based methodology, it helps developers to construct complicated interfaces, effectively manage state, and provide reusable user interface components. React's virtual DOM enhances rendering efficiency by only updating the UI elements that undergo changes, resulting in quicker and more effective updates. It is well-known for its speed, flexibility, and robust ecosystem and is frequently used for creating single-page apps.[9]

- **React Router**

A standard package for routing in React applications, React Router makes it possible to create dynamic, single-page web apps that allow users to navigate between various views or components. It lets developers set up several routes, each of which is associated with a unique URL, and it presents the relevant elements when visitors go to those URLs. React Router offers a smooth method of managing navigation and the history stack by supporting nested routes, route parameters, and redirects. Because of its declarative methodology and React's component-based design, sophisticated apps with responsive and intuitive user interfaces are simpler to create and manage.[10]

- **React Hook**

Functional components can make use of state and other React features thanks to specific functions called React hooks. Hooks were first introduced in React 16.8, and they let you work with the component lifecycle, handle side effects, and manage state without requiring class components. The most popular hooks are `useEffect`, which enables to carry out side operations in component, including retrieving data or subscribing to a service, and `useState`, which lets you add state to a functional component. You may build more organized, succinct, and reusable code for your React apps by utilizing hooks.[11]

- **Daisy-UI**

DaisyUI is a well-liked Tailwind CSS plugin that offers a collection of pre-made, editable components to assist developers in creating aesthetically pleasing user interfaces more quickly. DaisyUI makes it easier to create responsive and consistent designs by adding a variety of pre-made UI components, like buttons, cards, modals, and navigation bars, to Tailwind CSS. By eliminating the need for repetitious CSS code, it facilitates efficient development by freeing up developers to concentrate on functionality and user experience while preserving a consistent look and feel throughout their apps.[12]

- **Material-UI**

Inspired by Google's Material Design principles, a vast variety of customizable components is available through the popular React UI framework Material-UI. It makes it easier for developers to produce responsive, modern, and consistent user interfaces quickly and efficiently. The library's numerous components—such as buttons, grids, forms, and icons—make it easier to carry out design criteria fast and efficiently. Material-UI is a popular choice among developers working on React applications.[21]

- **MongoDB**

A popular NoSQL database, MongoDB employs a document-oriented data format to give contemporary applications flexibility and scalability. In contrast to conventional relational databases, MongoDB uses BSON (Binary JSON) documents to store data, which makes it simple to handle hierarchical data structures and allows for dynamic schema design. It offers strong indexing and querying features, high availability with replica sets, and horizontal scaling with sharding. Because of its adaptability, MongoDB may be used for a wide range of applications, including big data, real-time analytics, content management, and e-commerce. Its flexibility allows developers to work rapidly and iterate while managing a variety of workloads and data kinds.[13]

- **Express Js**

A powerful feature set for developing online and mobile apps is offered by Express.js, a lightweight and adaptable Node.js web application framework. It facilitates the development of server-side applications and RESTful APIs by streamlining the handling of HTTP requests and replies, routing, and middleware integration processes. Express.js is renowned for its ease of use, speed, and objectivity, which let programmers organize their apps as they see appropriate. Express.js is a widely used JavaScript framework for developing scalable, stable, and effective server-side applications because of its rich middleware and plugin ecosystem.[14]

- **Node Js**

Based on the V8 JavaScript engine in Chrome, Node.js is a powerful, open-source server-side runtime environment that lets programmers execute JavaScript on the server. It is intended for use in the development of scalable and effective network applications, with a focus on high throughput multi-threading. Because Node.js employs an event-driven, non-blocking I/O architecture, it is effective and lightweight for real-time applications such as online gaming, chat rooms, and teamwork tools. Development is further accelerated by the vast package ecosystem offered by npm (Node Package Manager), which offers a wealth of libraries and tools. Because of its efficiency and adaptability, Node.js is a popular option for contemporary web development.[15]

- **React Bootstrap**

Developers can use Bootstrap's pre-styled components as React components by integrating the popular front-end framework with React through the React-Bootstrap module. With the help of this integration, React apps can easily incorporate visually appealing and responsive designs while utilizing a wide range of Bootstrap components, including forms, modals, buttons, and navigation bars. React-Bootstrap provides components that work well with React's lifecycle and state management techniques, making development easier. It also makes theming and customisation

simple, giving developers all the tools they need to quickly and easily design distinctive and unified user experiences.[16]

- **Firebase**

Google created Firebase, a feature-rich platform for creating and maintaining online and mobile apps. It offers a range of services and technologies that improve app functionality and expedite the development process, including as real-time databases, cloud storage, hosting, authentication, and analytics. Firebase is perfect for collaborative apps because of its real-time database and Firestore, which allow data to be synced across clients instantly. Several sign-in techniques are supported by its strong authentication system, and cloud features enable backend logic without the need to manage servers. Because of its easy-to-use SDKs and connectivity with Google Cloud, Firebase is a popular choice among developers who want to quickly construct secure, scalable, and high-performance apps.[17]

- **Vite**

With the goal of providing a quicker and more efficient development process, Vite is a cutting-edge build tool and development server for front-end web projects. Vite, developed by Vue.js creator Evan You, employs Rollup for production builds and native ES modules in the browser to speed up development. The development process is streamlined by Vite, which drastically cuts down on the amount of time needed for hot module replacement (HMR) and cold starts. It is highly extendable with plugins and supports a wide range of frameworks, including Vue, React, and Svelte. Vite is an excellent option for contemporary web development because of its simple setup, blazingly quick performance, and extensive feature set.[18]

- **IDE: MongoDB Atlas, VS code:**

Developers can easily host, manage, and grow MongoDB databases using MongoDB Atlas, a fully managed cloud database service. It is easy to create and administer databases in the cloud with its capabilities, which include fine-grained access control,

automatic backups, and monitoring—all without having to worry about infrastructure administration.[19]

Vite is a modern web build tool designed for quick development. It features hot module replacement, rapid server startup, rollup bundler, native ES modules, and is framework neutral. It can be used with JavaScript or other libraries, and its robust plugin architecture allows easy integration with other tools and libraries.[20]

CHAPTER 4

System Analysis and Design

4.1 Introduction:

An important stage in the development of information systems is System Analysis and Design (SAD), which focuses on understanding and accurately specifying what an information system should perform and how its components should be implemented. It involves examining business requirements methodically and determining how to employ technology to fulfil those objectives. The process involves gathering requirements, modelling the system, designing the system architecture, and creating detailed specifications. Thanks to superior system analysis and design, a system that is effectively developed and run will satisfy user needs and be scalable, economical, and efficient.

4.2 Methodology and Development Model:

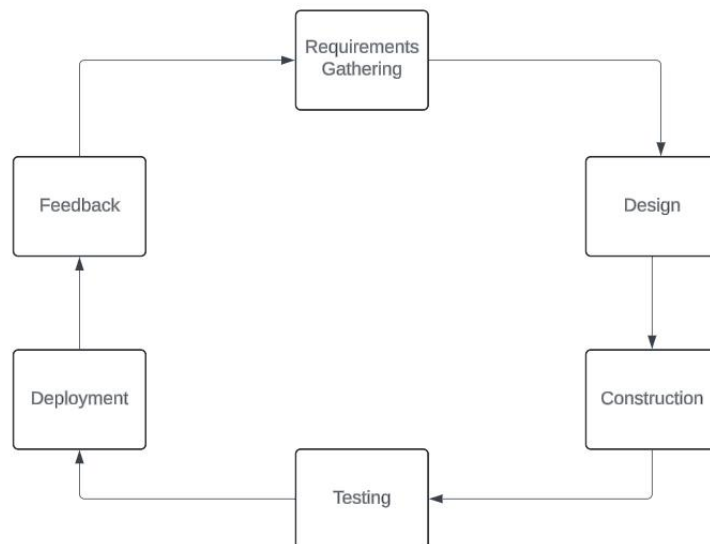


Figure 4.2.1: Agile Method

The Agile method is a software development and project management methodology that emphasizes flexibility, collaboration, and giving priority to the needs of the client. It places a strong emphasis on making small, achievable progress over time, which enables teams to quickly produce value and adapt to changing requirements. To ensure ongoing development and responsiveness to criticism, essential practices include close stakeholder involvement, regular retrospectives, and daily stand-up meetings. Agile helps teams maintain high quality and stay connected with client expectations by focusing on delivering functional pieces of a project step by step. This fosters a dynamic and effective development environment.

For a location-based e-commerce business, using an agile methodology makes sense because of its flexibility and customer-centric focus. Agile's iterative development process enables quick adjustments to shifting market conditions and technology breakthroughs, guaranteeing the platform's continued relevance and competitiveness. Agile methodologies' constant feedback loops allow the team to improve user experience, produce high-quality features progressively, and shorten time-to-market. Agile also

4.3 Requirement Collection and Analysis:

The primary goal of the critical requirement analysis and gathering phase of system analysis and design is to gather a wealth of information regarding stakeholder expectations and requirements. This phase involves communicating with users, clients, and other stakeholders using a range of approaches, including surveys, observation, interviews, and document analysis, in order to ascertain the functional and non-functional needs. Following the collection of the criteria, an analysis is conducted to ensure that they are accurate, thorough, and feasible. This study helps to create detailed specifications that are used in the design of the system architecture. To develop a system that meets the needs of all stakeholders is reasonably priced, and can be delivered on time, clear requirements must be obtained and thorough research must be conducted.

4.4 User Block Diagram:

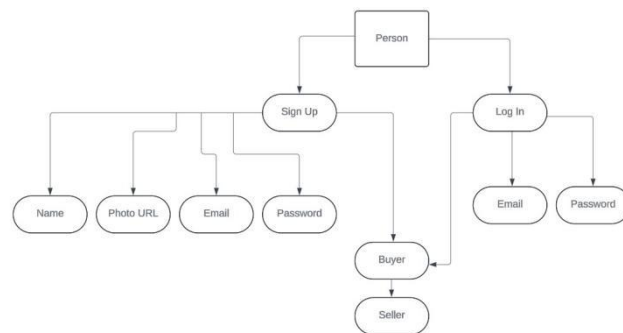


Figure 4.4.1: User Block Diagram

4.5 Use Case Diagram:

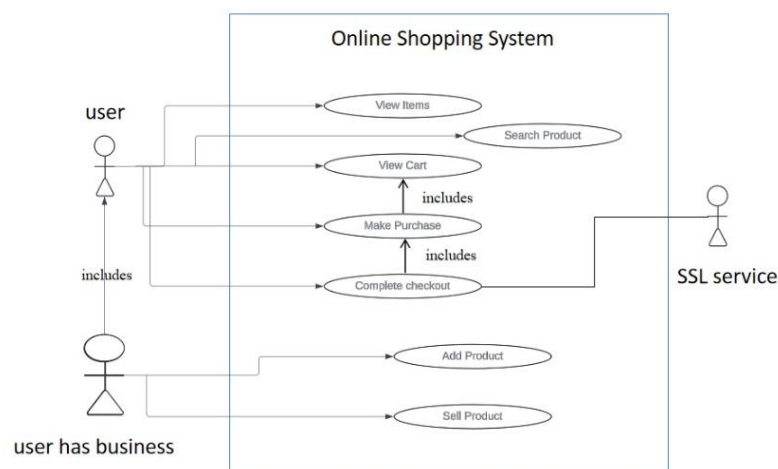


Figure 4.5.1: Use case diagram

A Use Case Diagram is a visual representation of the functional requirements of a system that is employed in system design and analysis. Use cases illustrate the interactions between users (actors) and the system by serving as stand-ins for specific actions or services provided by the system. When the primary functions and system scope are indicated, as this graphic illustrates, it becomes simpler to understand user needs and system capabilities. Use case diagrams ensure that the system design meets

user needs and business objectives by clearly illustrating the relationships between various use cases and actors. This facilitates stakeholder communication.

4.6 ER-Diagram:

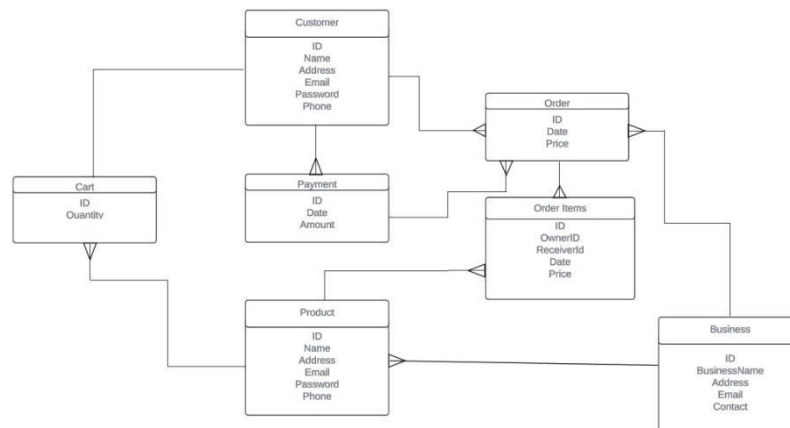


Figure 4.6.1: ER Diagram

A visual tool used in database design to show the relationships and organization of data inside an information system is the entity-relationship (ER) diagram. It consists of entities, which stand in for actual things or ideas, attributes that explain these things' characteristics, and relationships that specify how these things relate to one another. ER diagrams facilitate efficient data planning and organization, guaranteeing a coherent and transparent design prior to execution.

CHAPTER 5

Design, Development, Testing and Implementation

5.1 Structure of the project:

The project entails creating a location-based e-commerce platform, divided into multiple crucial stages, that highlights nearby businesses. With an emphasis on user-friendly design, data protection, and continuous improvement based on feedback, the platform will feature a responsive web and mobile interface, user and business management dashboards, inventory and order processing, Geo-location integration, and secure payment gateways to ensure smooth execution.

5.1.1 Starting

1.Register:

To get into the web service, the person first needs to register, where a name, photo URL, email, and password should be given. A register navbar is integrated for this work. . The "Register" button should be selected by the user to complete the registration.

2.Log in:

If the person is registered, he should have an email and password and need to remember. This can be used to get access to the website if the person has logged out before.

Before the person is logged in or registered:

3. Home:

Home is the representation of the process website. It shows related functionalities needed for an e-commerce service process to work.

4. Category:

Category is where different products are stored depending on the variety.

5. Orders:

If a person tries to add a cart, he will be asked to log in and redirected to the log-in page. But, if logged in, all the carts added count will be shown as a number to the order nav.

After a person logged in:

Will get all the access to the website, newly,

1. Search:

The person can search for any product he wants and is available on the website.

2. Profile:

Can access the profile, see and edit profile details, see purchase history if any, if added to any cart from the web and send or see messages if sent to anyone. Can also back home, and log out from there.

3. Business Profile:

The person can create a business profile too, if has any. First, need to register after filling up the details. If not, that person cannot add any product. Product sold history can also be seen. Can be logged out, or go back home.

5.2 Front-end design implementation

Using HTML, CSS, and JavaScript, front-end design execution turns interactive and visual aspects from design prototypes into useful, user-friendly online interfaces. In order to ensure accessibility and search engine friendliness, this process starts with establishing the project structure and then on to designing a responsive layout with semantic HTML5 elements. The components are styled using CSS, which makes use of pre-processors like SASS for more effective styling and approaches like Flexbox or Grid for responsive design. Then, JavaScript interacts with frameworks like React, Vue, or Angular to manage asynchronous data fetching, produce interactivity, and maintain state. Apart from thorough testing, compatibility with several browsers, and

speed optimization, the implementation aims to provide a smooth and aesthetically pleasing user experience.

5.2.1 Home Page

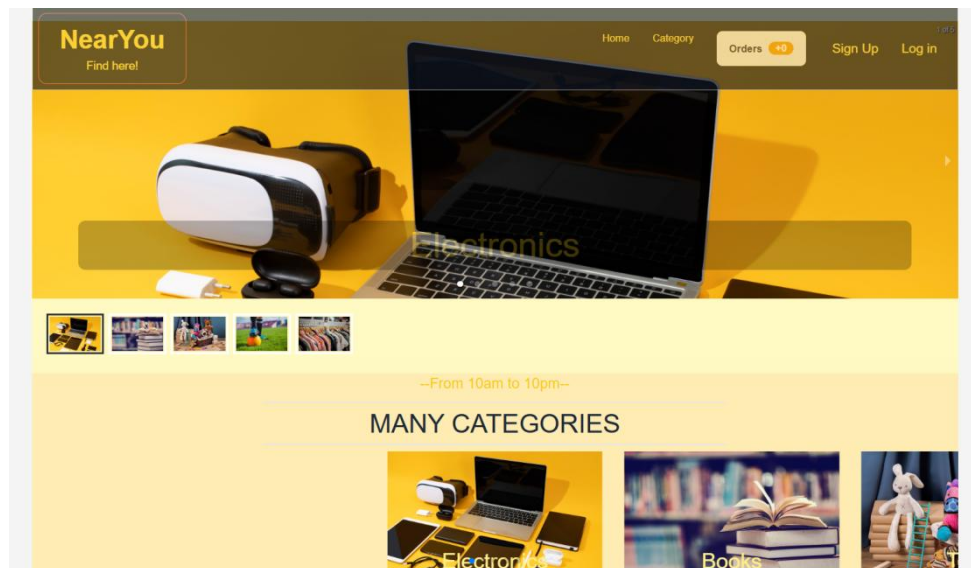


Figure 5.2.1.1: Start of the page

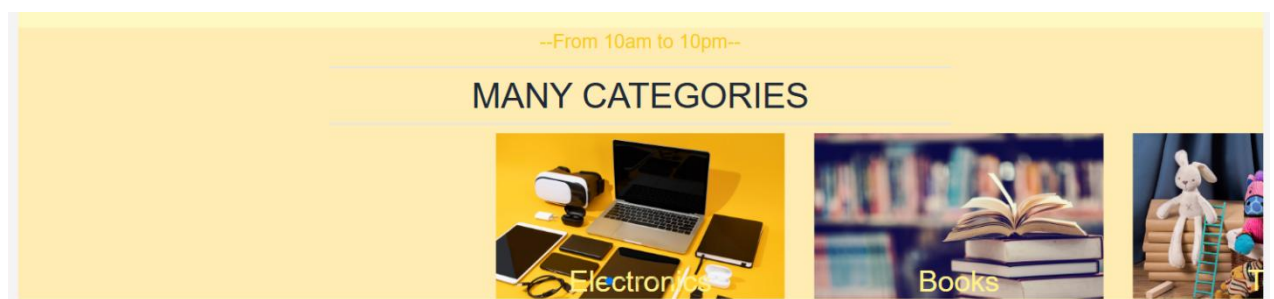


Figure 5.2.1.2: Category Samples

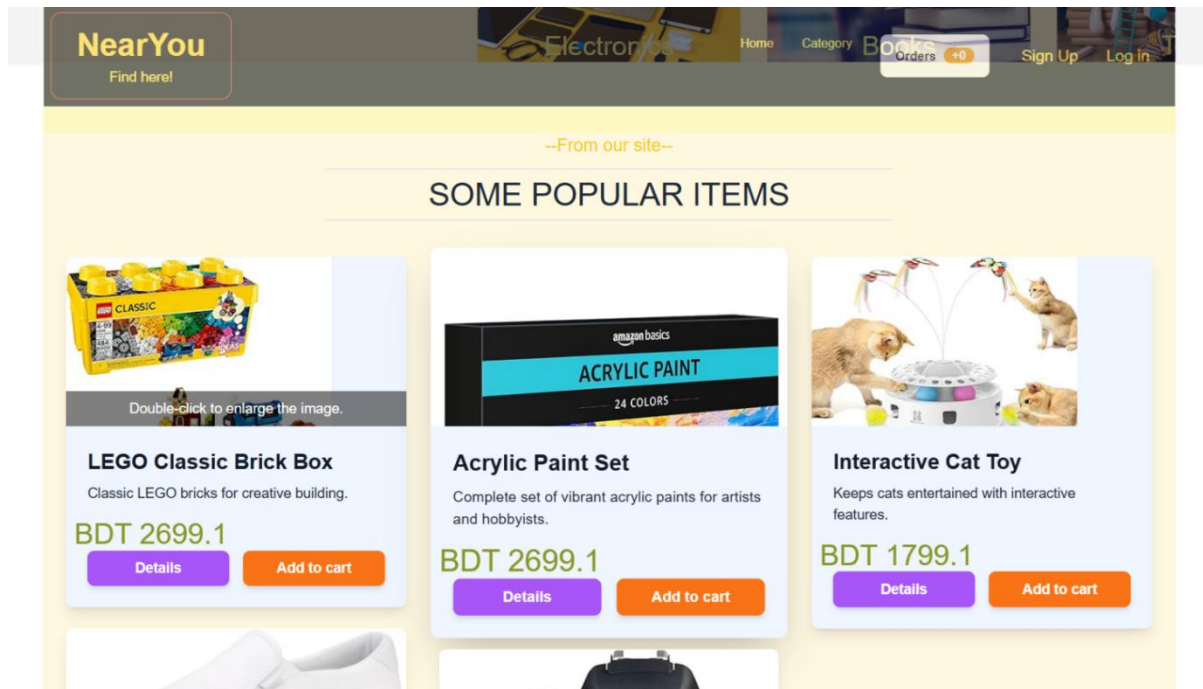


Figure 5.2.1.3: Products Display

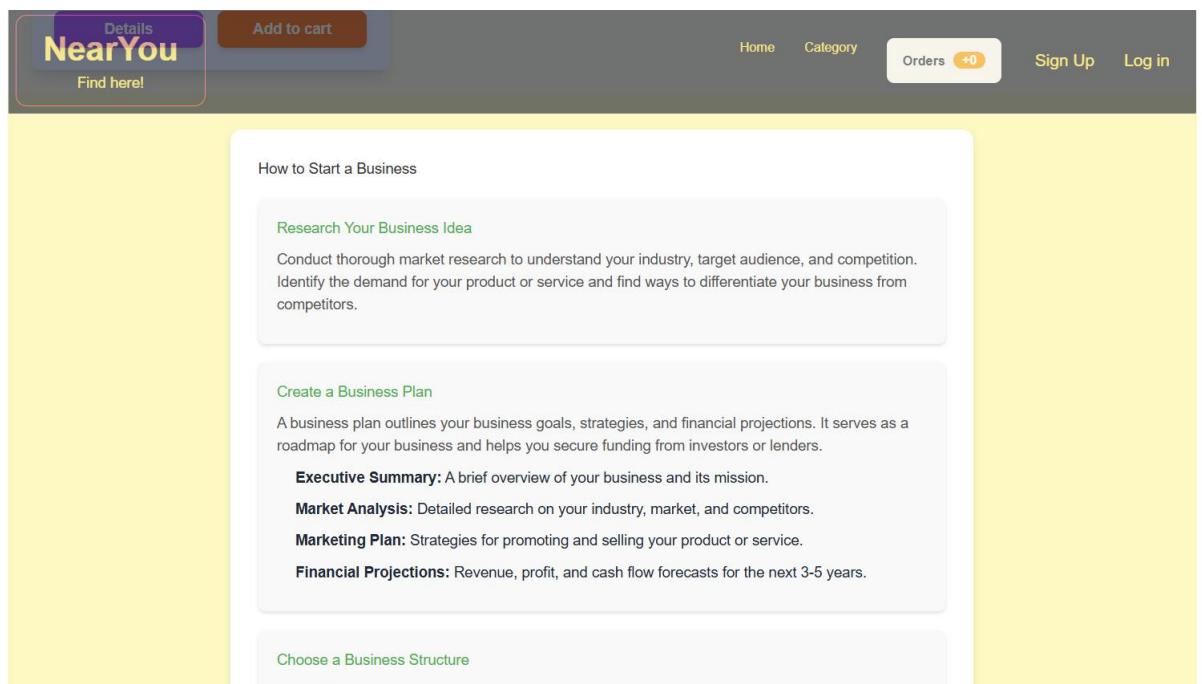


Figure 5.2.1.4: Business Guide



Figure 5.2.1.5: Reviews

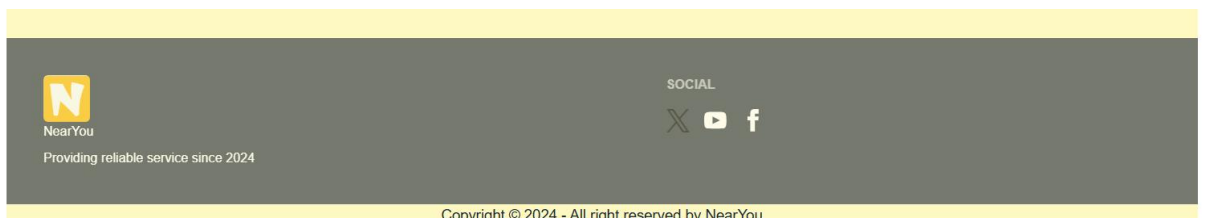


Figure 5.2.1.6: Footer

5.2.2 Category:

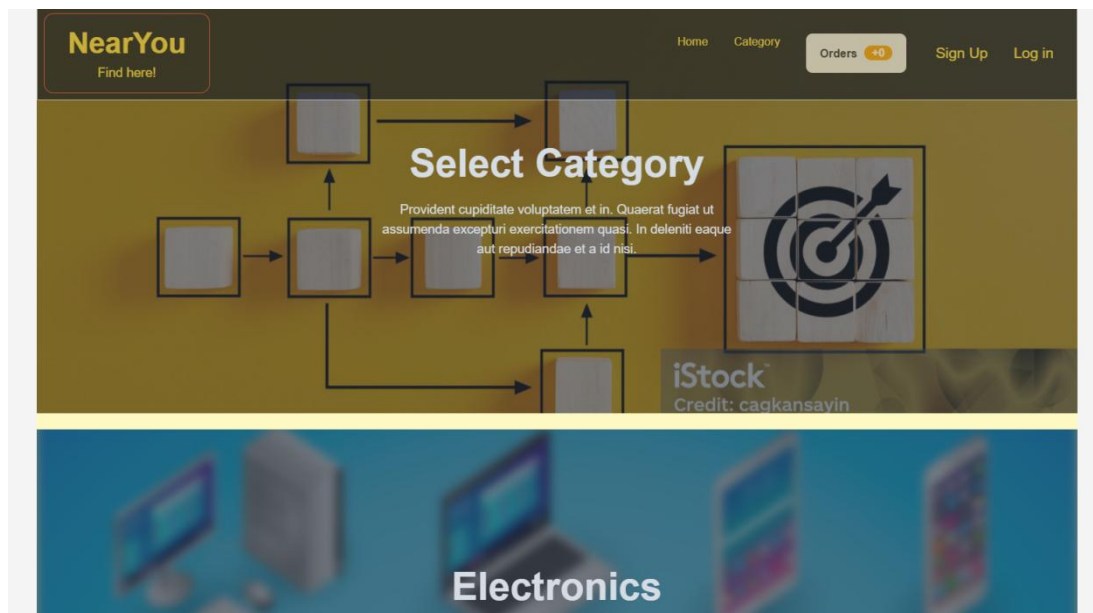


Figure 5.2.2.1: Category Page

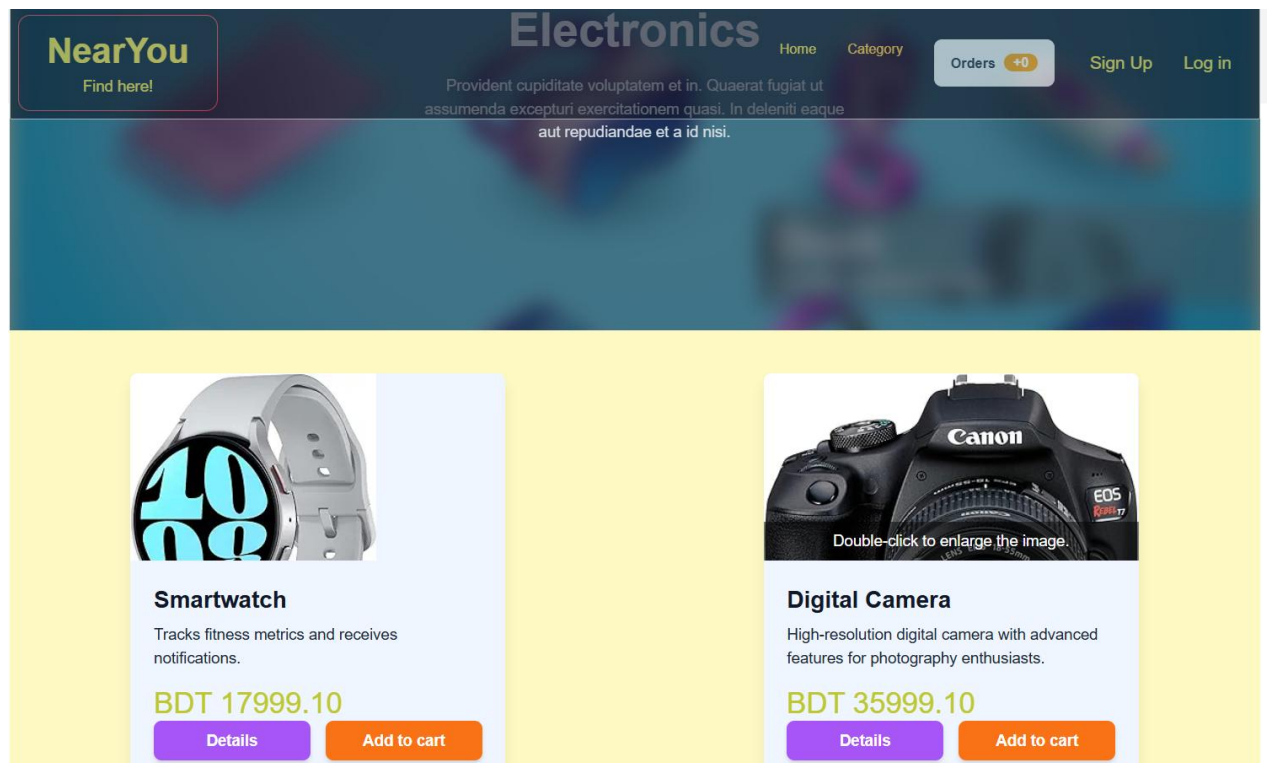


Figure 5.2.2.1.1: Category Page example-1

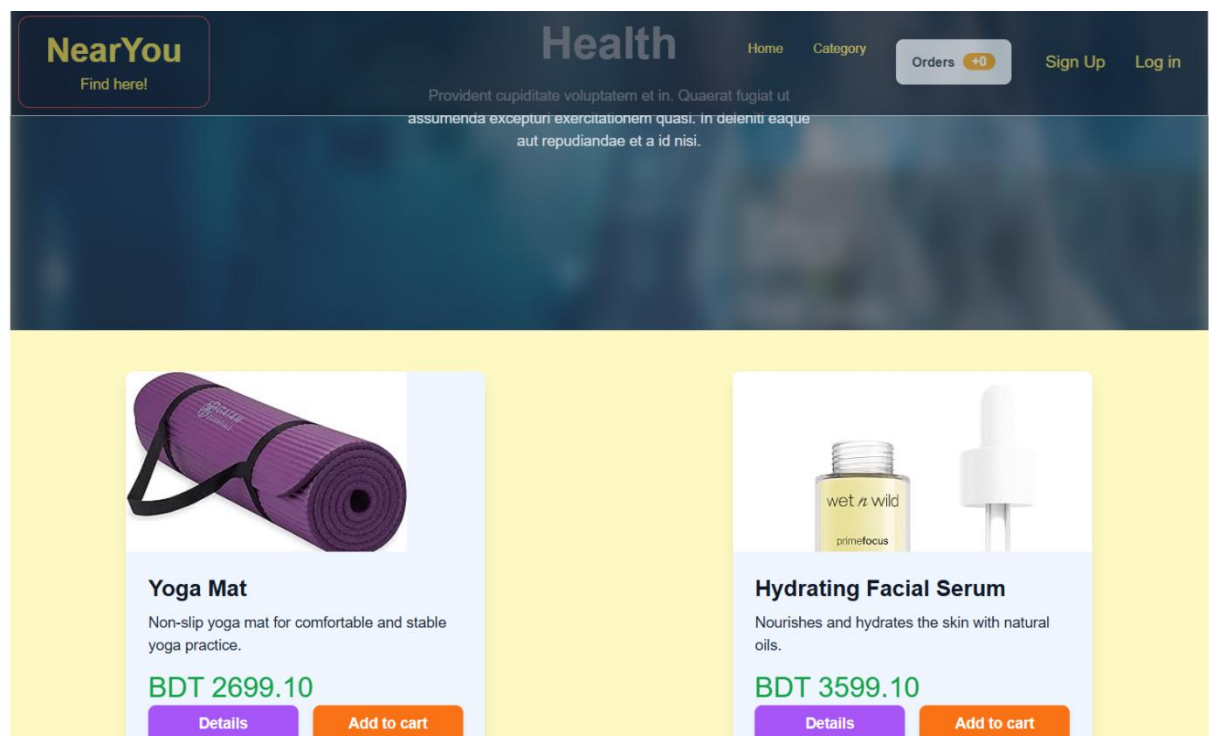


Figure 5.2.2.1.2: Category Page example-2

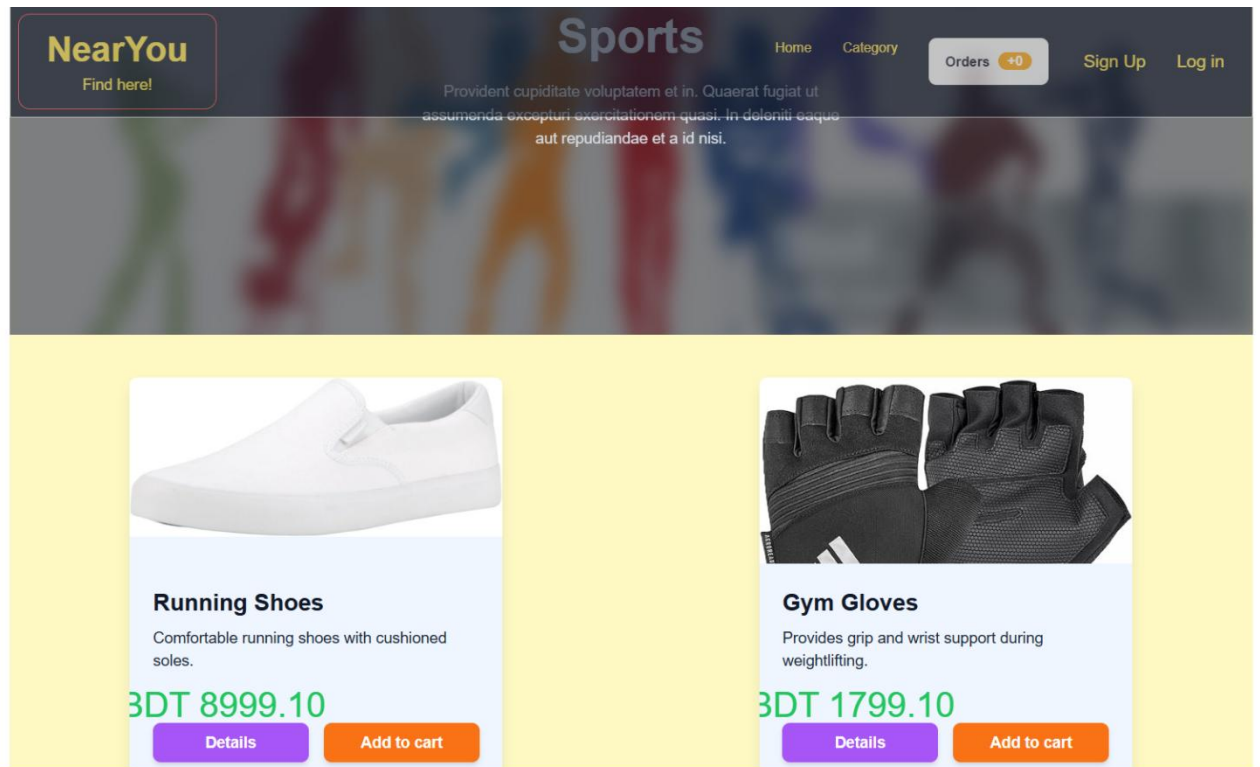


Figure 5.2.2.1.3: Category Page example-3

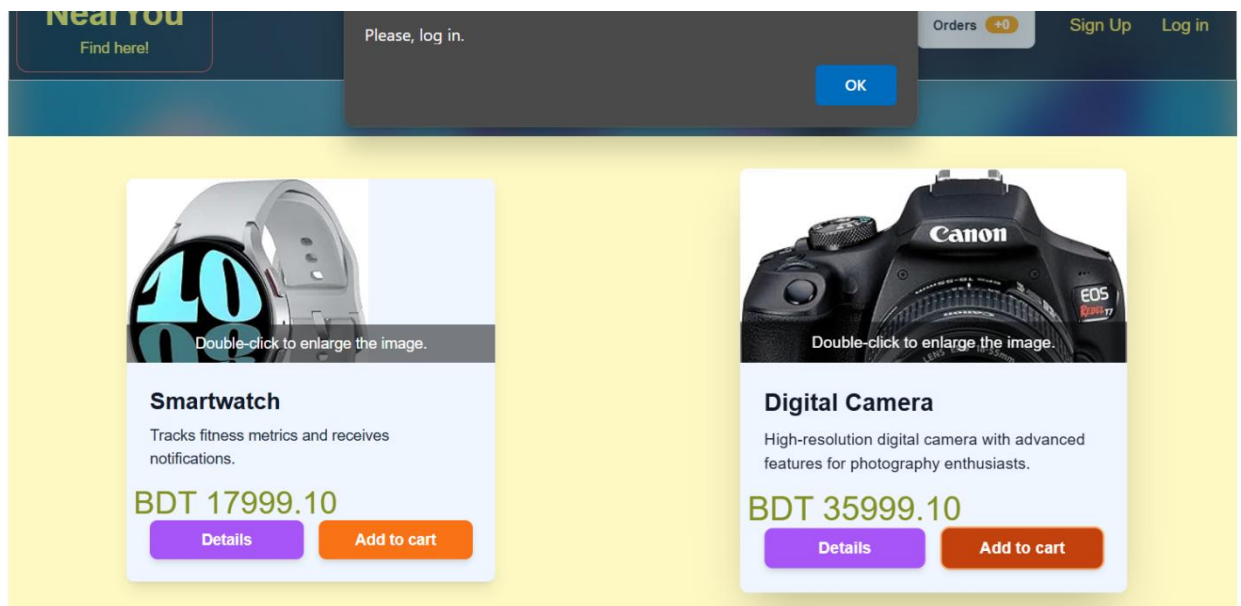


Figure 5.2.2.2: Not logged in fail

As the person was not logged or opened account, the cart Item cannot be added, and redirected to the log in page.

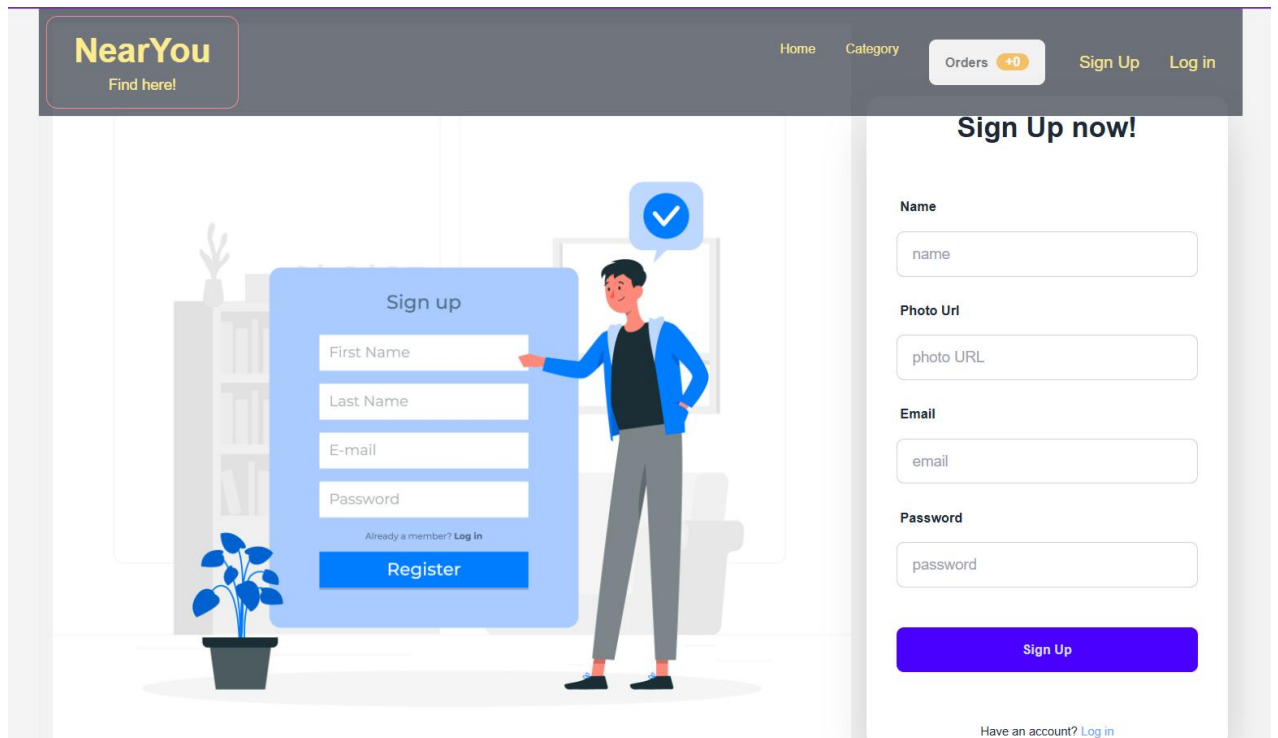


Figure 5.2.2.3: Redirected to Log In page

5.2.3 Account Access Pages:

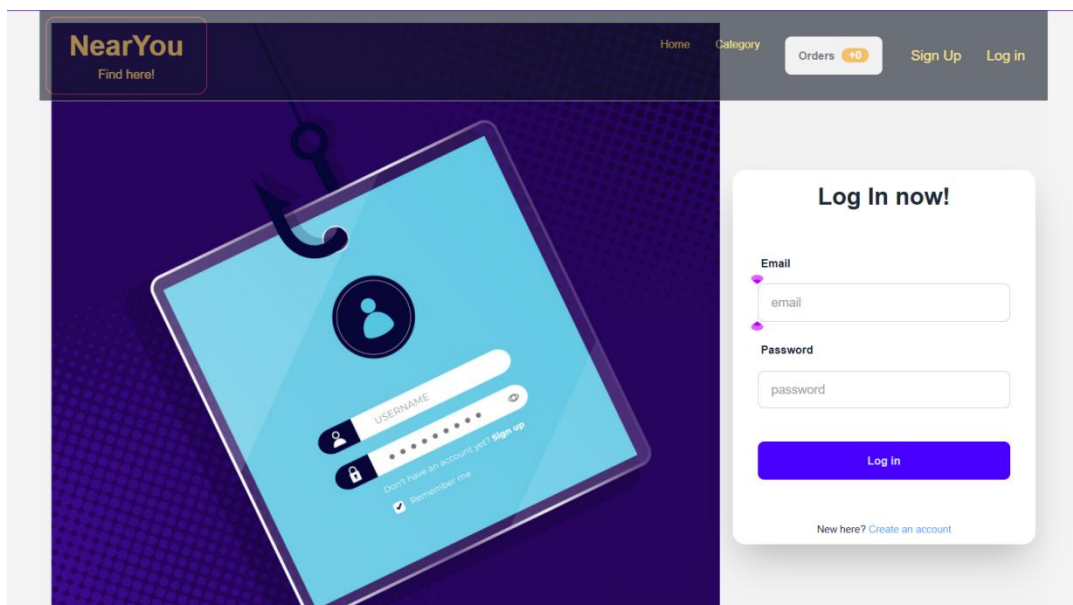


Figure 5.2.3.1: Log In, if has account

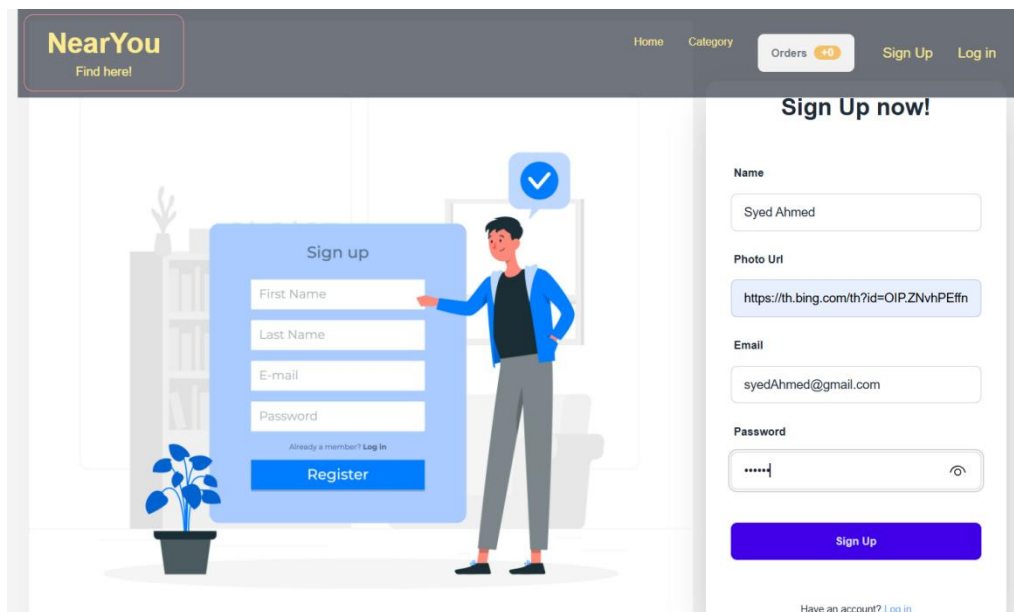


Figure 5.2.3.2: Sign Up, if no account

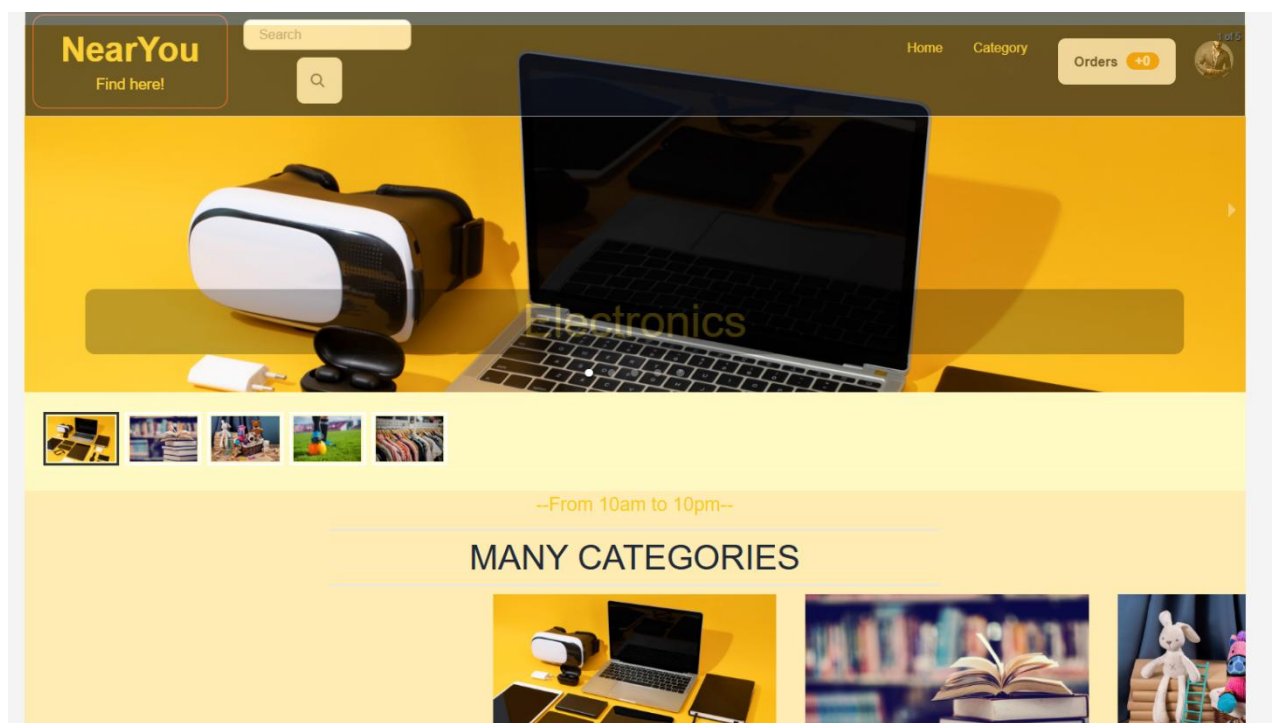


Figure 5.2.3.3: Gets access of search and profile section avatar

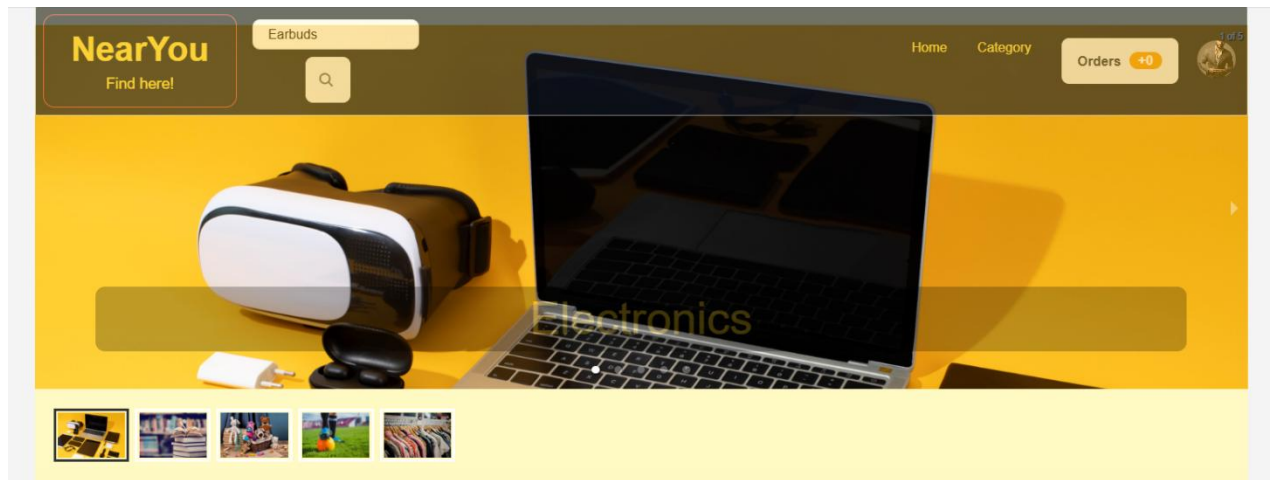


Figure 5.2.3.4: Logged In mood

5.2.4 Search and add cart

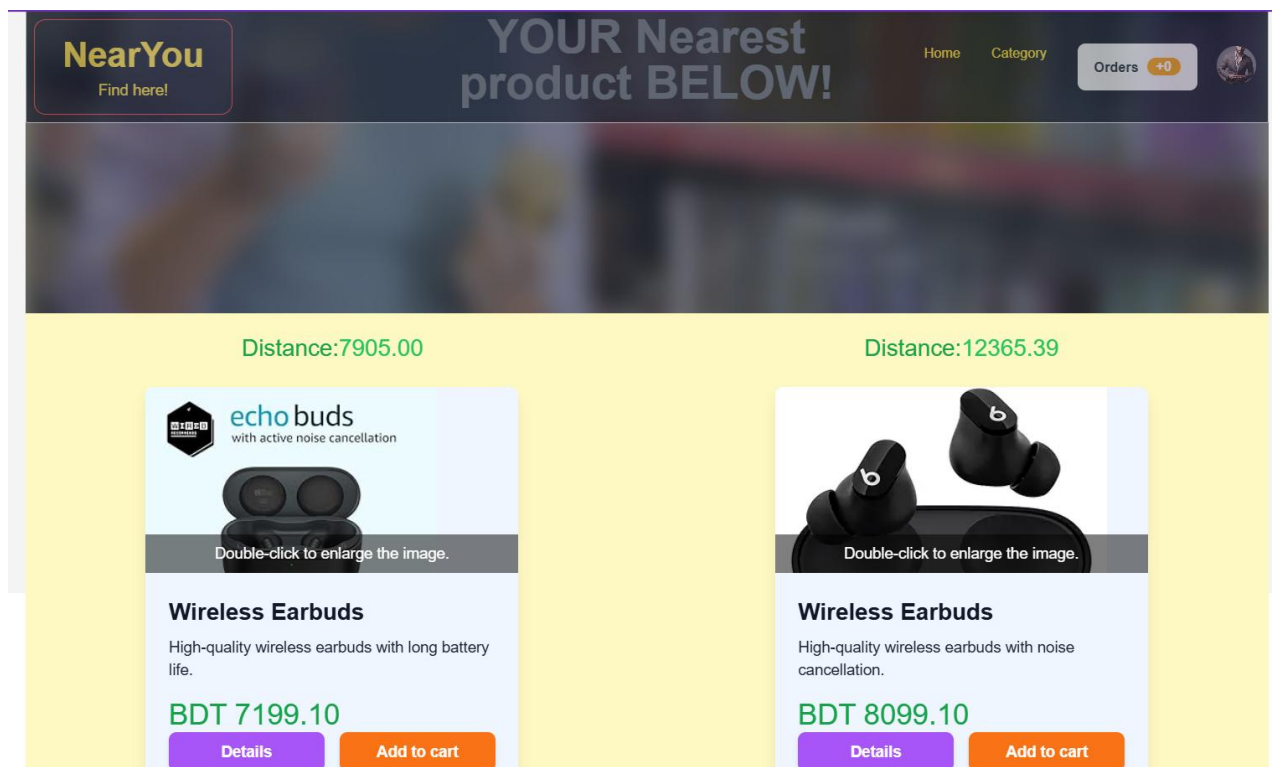


Figure 5.2.4.1: Search Result

Displays nearest sellers first with a distance parameter. Added the cart at the orders nav:

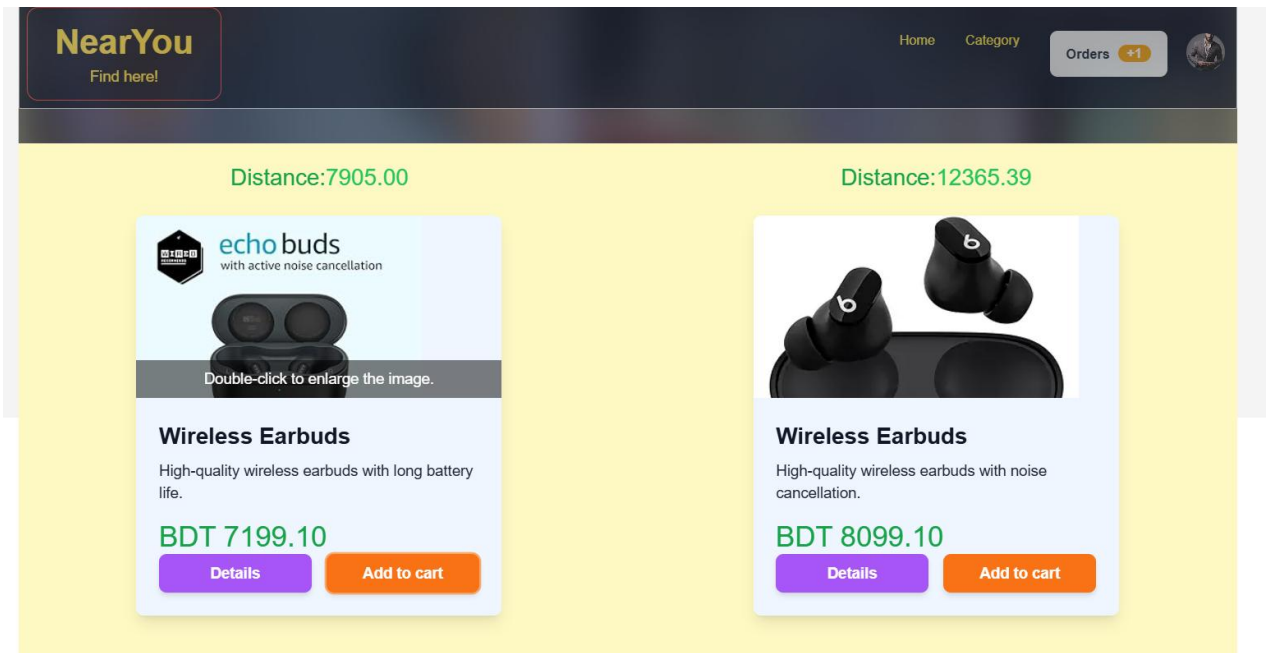


Figure 5.2.4.2: Cart added

5.2.5 Carts

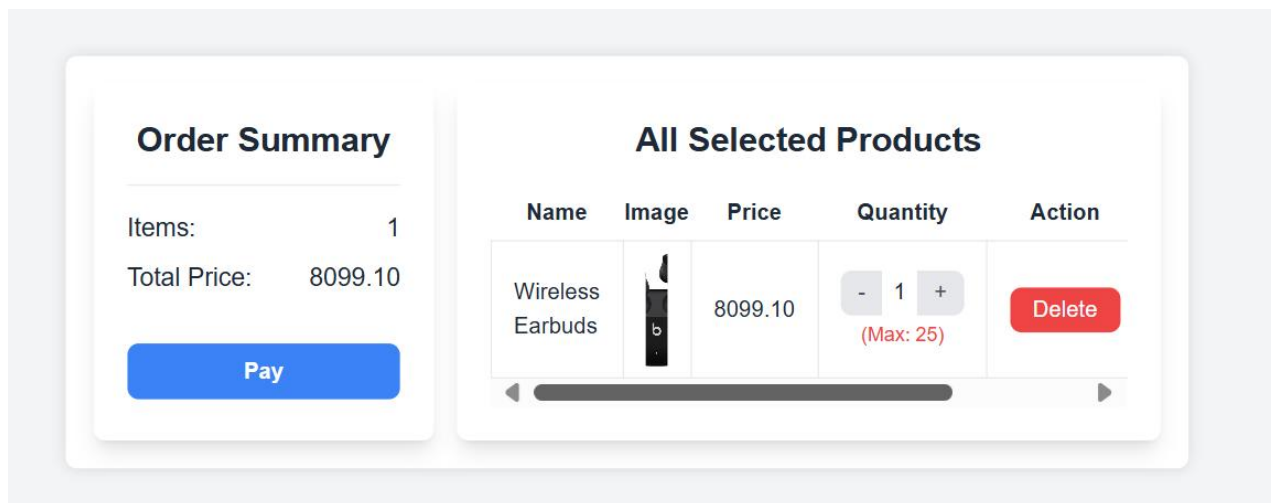


Figure 5.2.5.1: Cart display

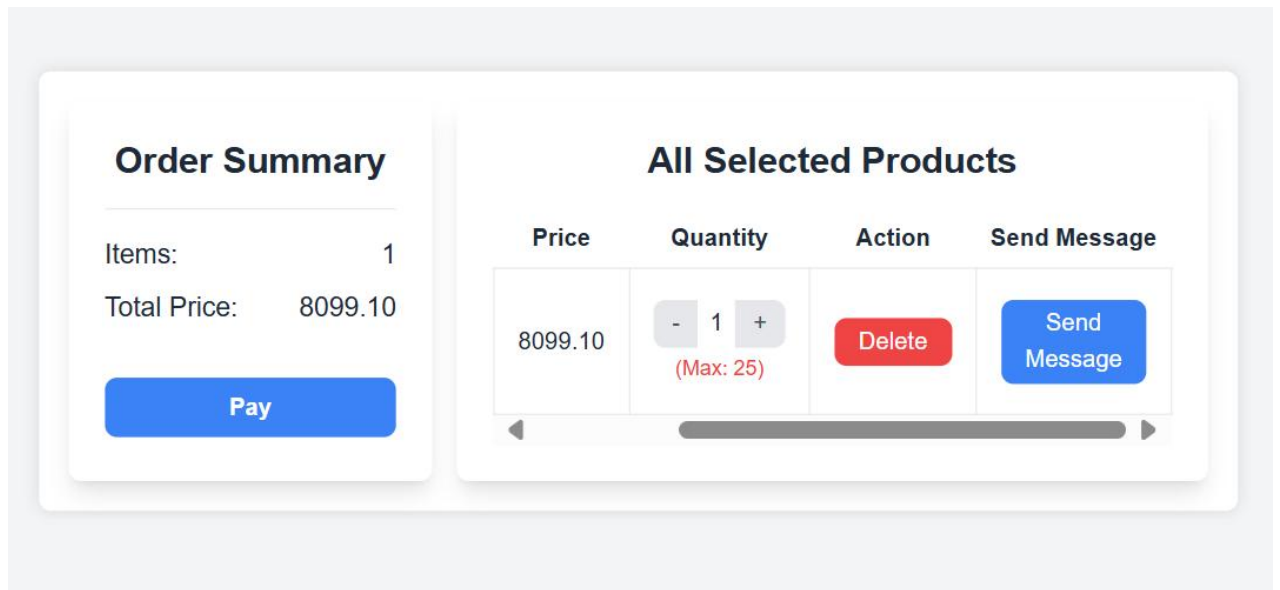


Figure 5.2.5.2: Send message option

The person can update products counts and for any query can message to the product owner.

5.2.6 Communication system

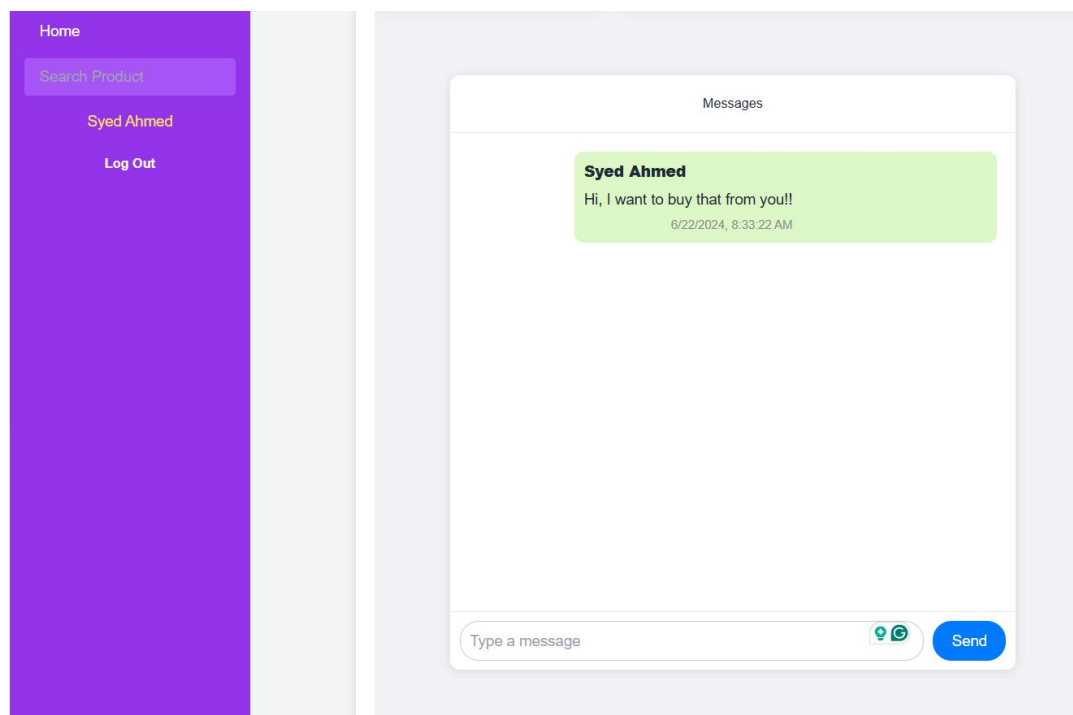


Figure 5.2.6.1: Message sent (Buyer)

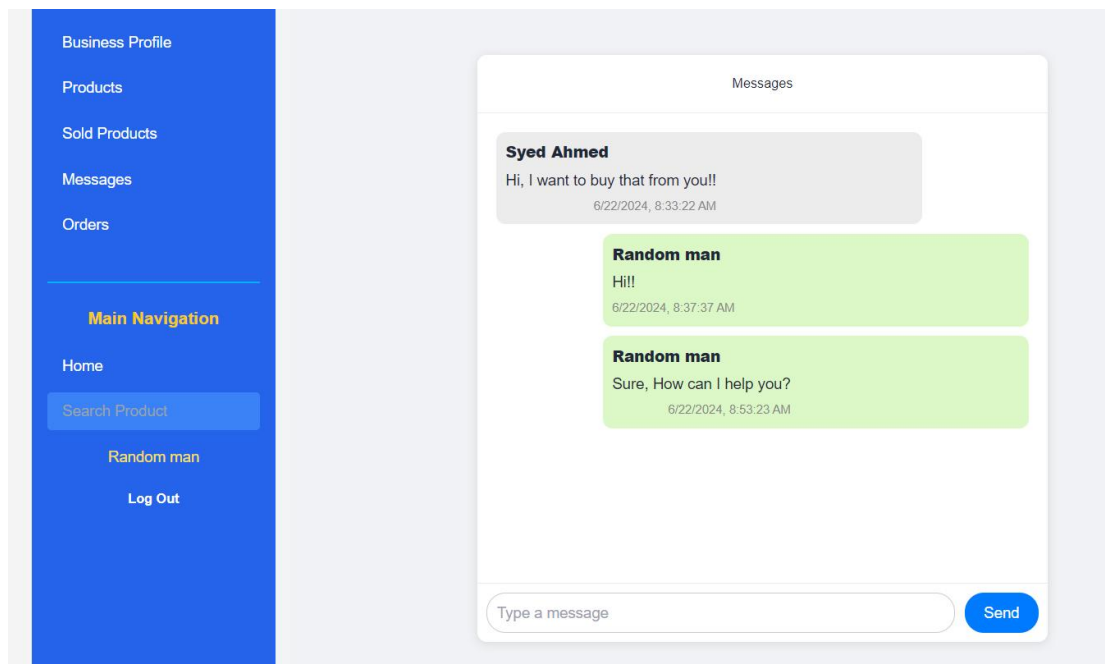


Figure 5.2.6.2: Message sent (Seller)

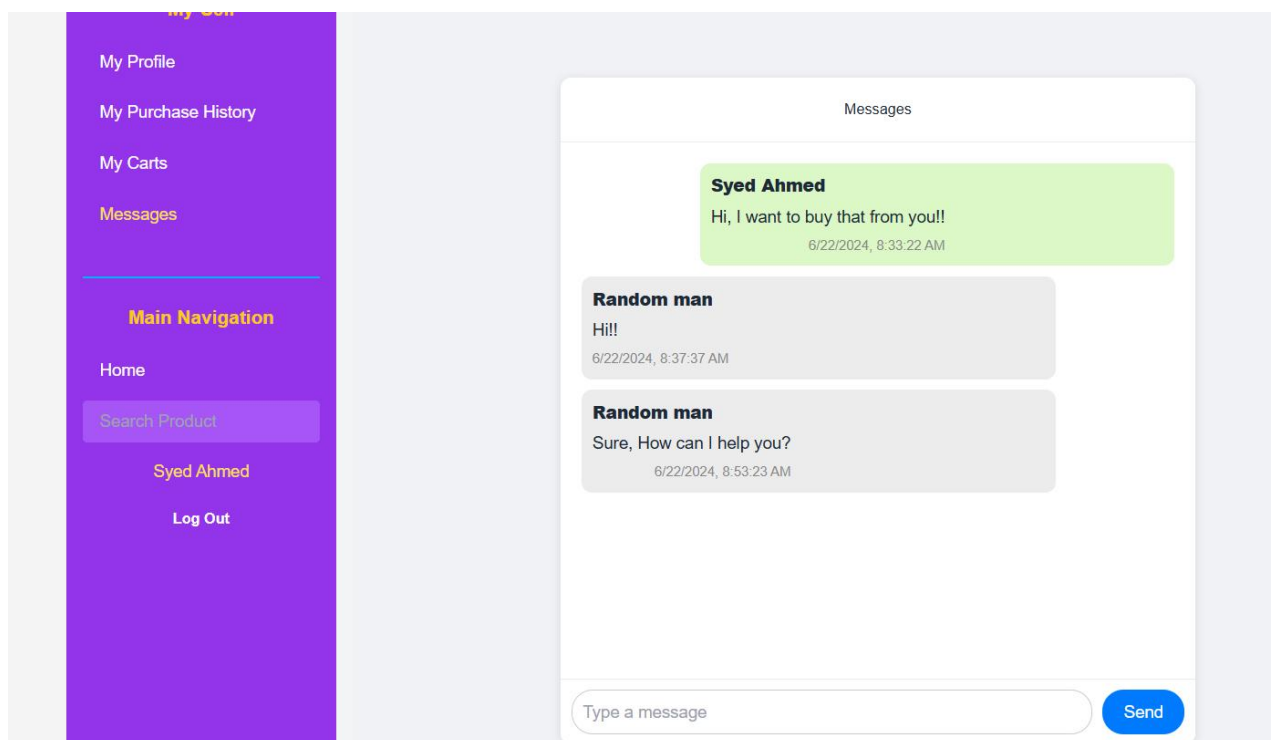


Figure 5.2.6.3: Message received (Seller)

5.2.7 Person's Profile

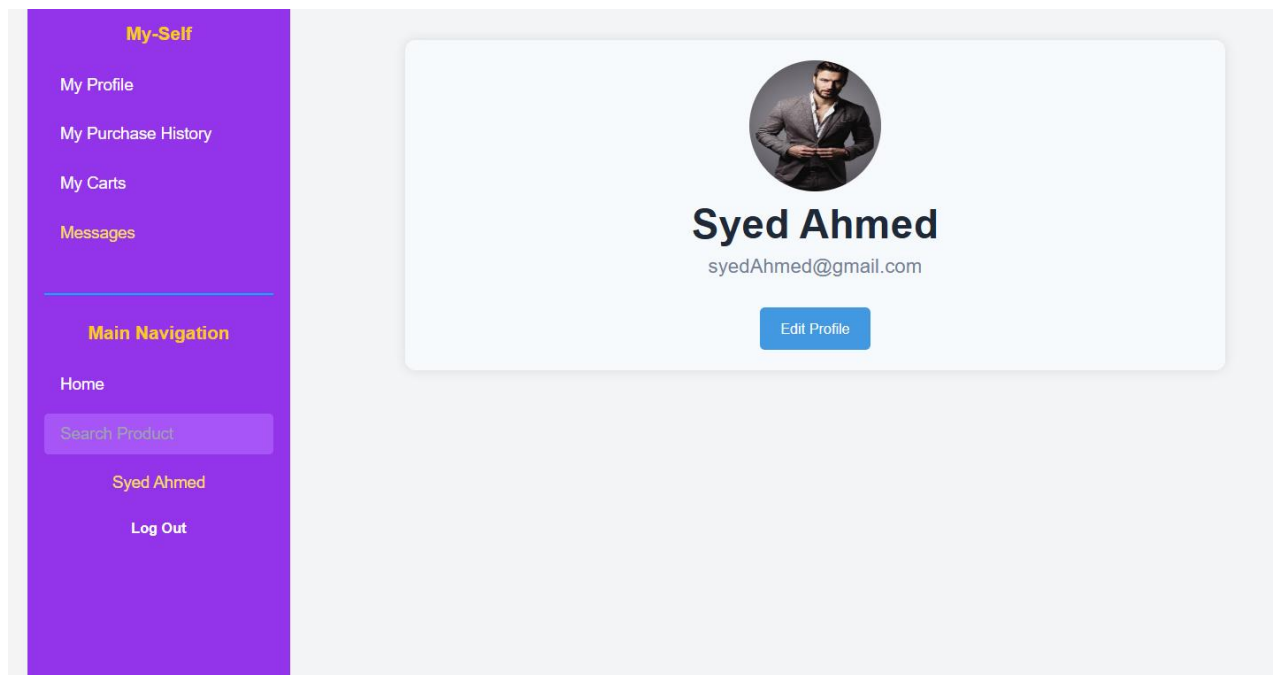


Figure 5.2.7.1: Personal Profile

A screenshot of the 'Edit Profile' form. It features the same header as Figure 5.2.7.1, including the profile picture, name 'Syed Ahmed', and email 'syedAhmed@gmail.com'. Below the header, the form contains several input fields: 'Name:' with a text box containing 'Syed Ahmed'; 'Photo URL:' with a text box containing a long URL; 'Email:' with a text box containing 'syedAhmed@gmail.com'; 'Contact Number:' with an empty text box; and 'Facebook Link:' with an empty text box.

Figure 5.2.7.2: Personal Profile edit form

5.2.8 Profile Switching



Figure 5.2.8.1: Switch Profile

5.2.9 Business Profile Mood

A web application interface for registering a business profile. On the left is a blue sidebar with a 'Business Dashboard' section containing links for 'Business Profile', 'Products', 'Sold Products', 'Messages', and 'Orders'. Below this is a 'Main Navigation' section with 'Home', 'Search Product', 'Syed Ahmed', and 'Log Out'. The main content area is titled 'Register Your Business' and is divided into two columns: 'Owner Details' and 'Business Details'. The 'Owner Details' column has fields for 'Owner Name', 'Owner Profile Picture Link', 'Business Email', 'Business Phone', and 'Business Address'. The 'Business Details' column has fields for 'Business Name' and 'Business Logo Link'. Below these columns is a 'Business Description' text area with a purple dot icon. At the bottom, there is a checkbox labeled 'Allow access to your location' and a blue 'Register Business' button.

Figure 5.2.9.1: Business Profile Mood

Need to register before starting.

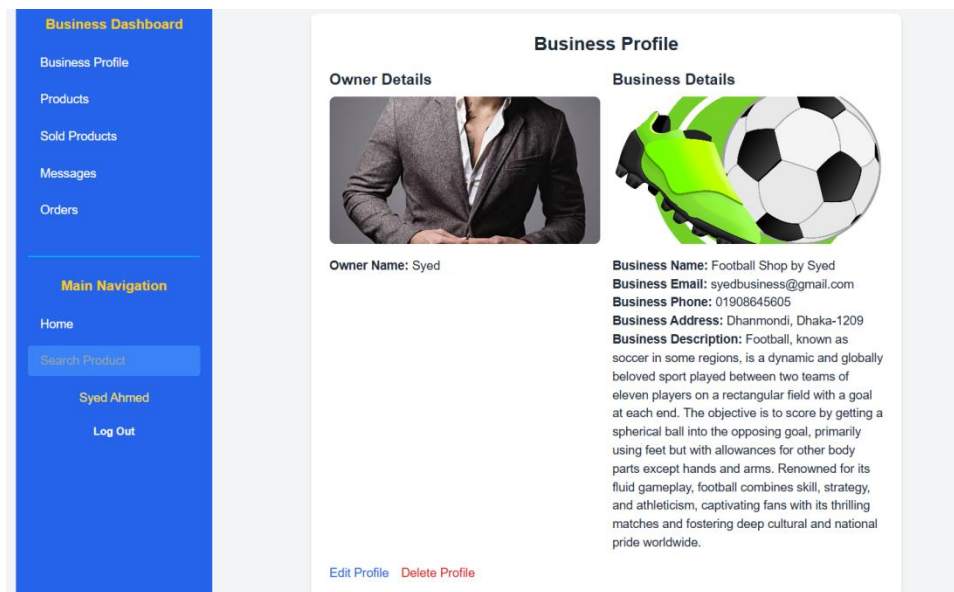


Figure 5.2.9.2: Business Profile

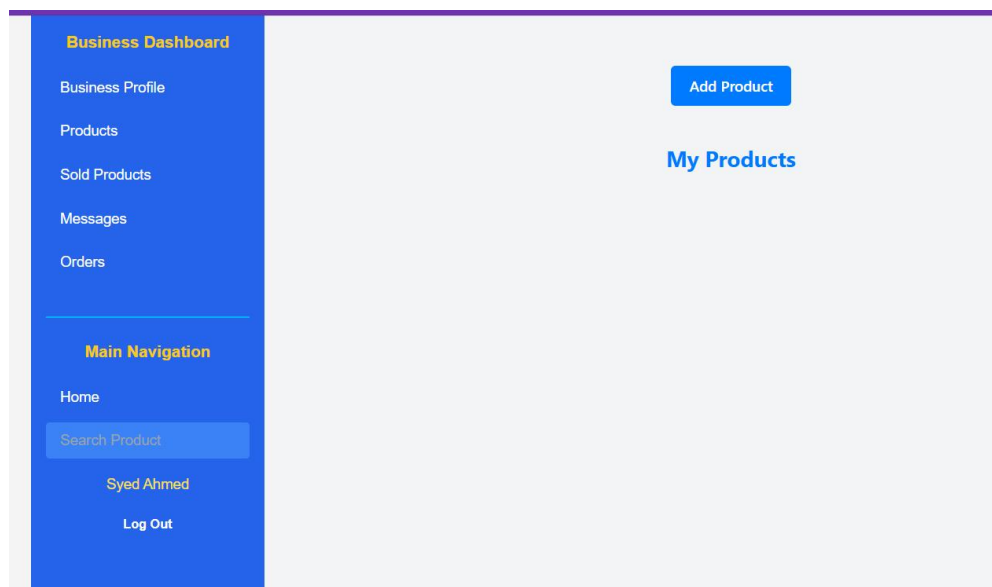


Figure 5.2.9.3: Business Product Add Section

Product Name:

Price:

Category:

Quantity:

Popular:
☐

Image URL:

Details:

[Add Product](#)

Figure 5.2.9.4: Business Product Add Form

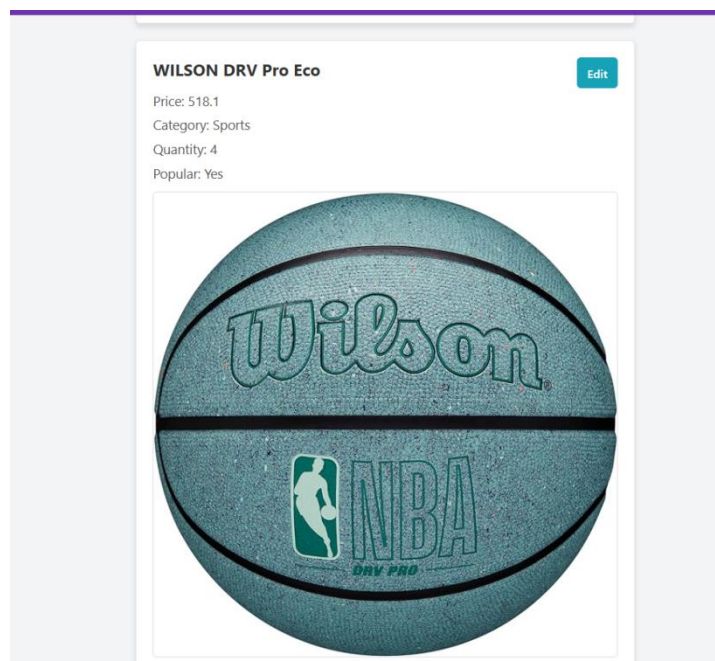


Figure 5.2.9.5: Product Added

5.2.10 Product in search

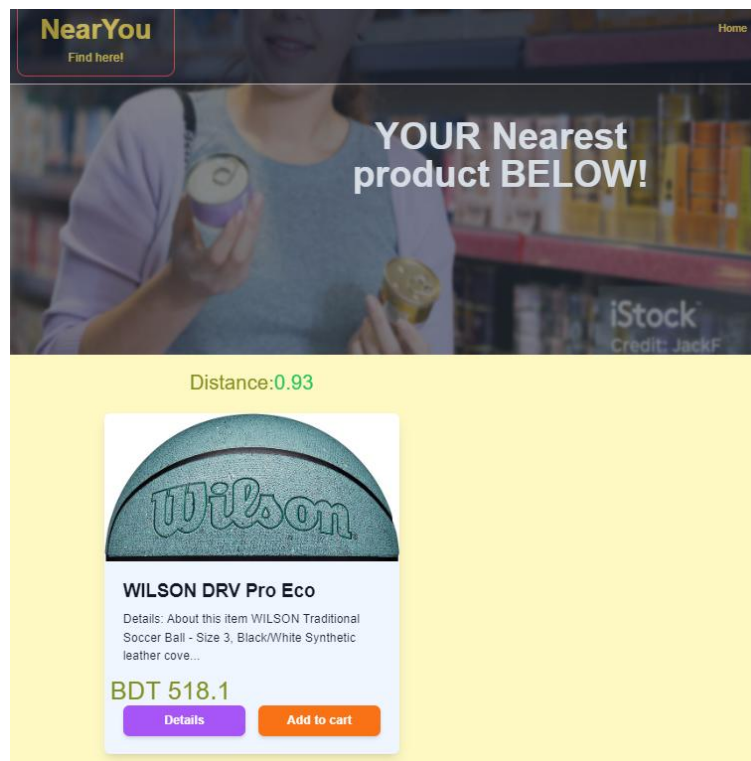


Figure 5.2.10.1: Added Product in the search result.

*Distance is 0 due to testing account distance.

5.2.11 Payment Procedure.

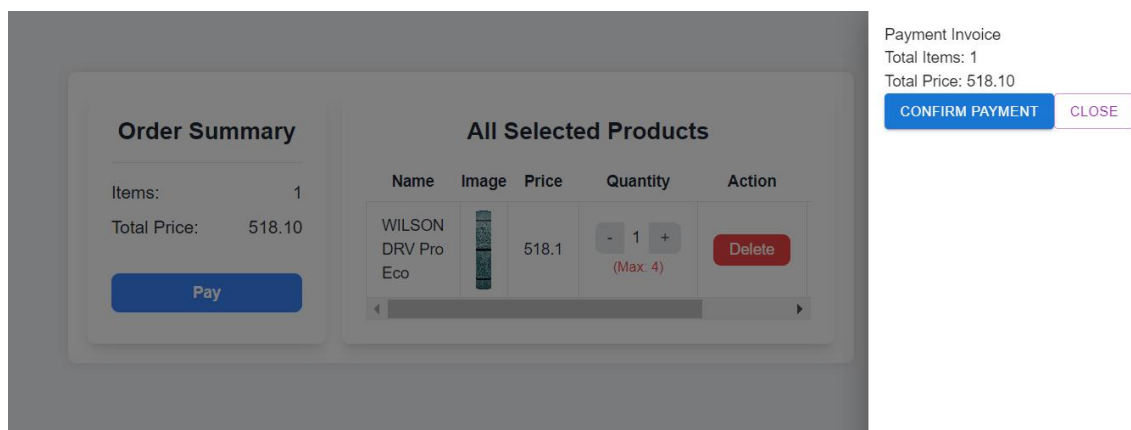


Figure 5.2.11.1: Product Purchase Confirmation

If confirmed button pressed, he will be redirected to the SSL platform.

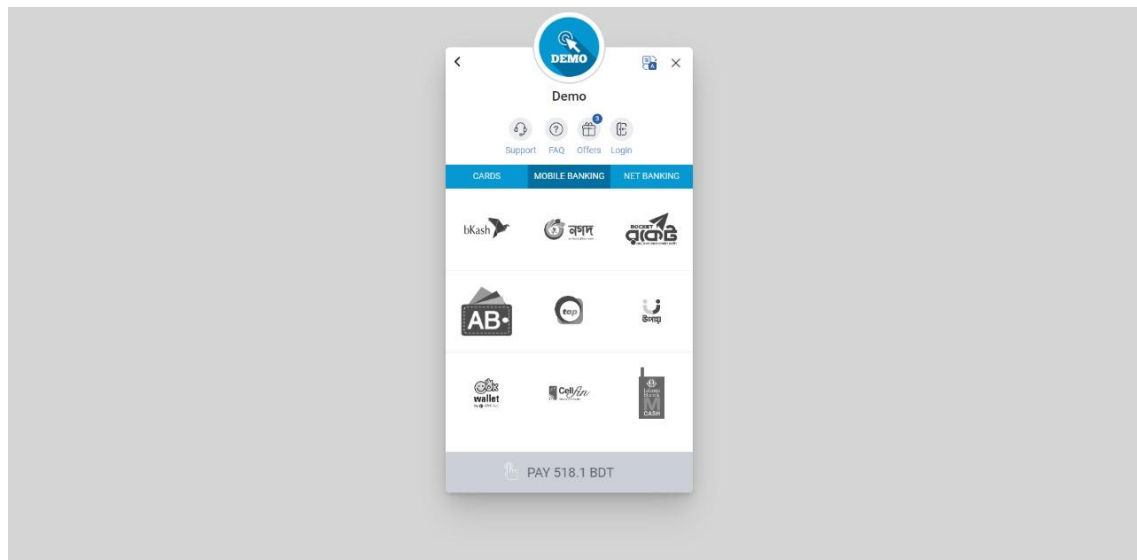


Figure 5.2.11.2: Payment Procedure

OTP Page

Do not press browser back or forward button while you are in payment page

Payment Summary	
Please review the following detail for this transaction:	
Amount:	518.10
Invoice number:	24062116031408ixfgx9wp2PZFk
Description:	Products

Enter Card Information	
OTP: Success Failed	Your entered card information could not be corrupted or become known to the third party, as all transmitted data is encrypted by the SSL protocol. Note 1. For VISA and MC, look at the back side of your Card to find 3-digit CVV2/ CVC2. For AMEX, look at the upper right corner of the front side of your Card to find 4-digit CSC. 2. The cardholder's name should be entered just as it's written on the card.

SSLCOMMERZ TESTBOX GATEWAY (NO CARD INFORMATION WILL BE SAVED AND DUMMY CARD WILL BE USED-AMEX-11-050903)

Figure 5.2.11.3: OTP page

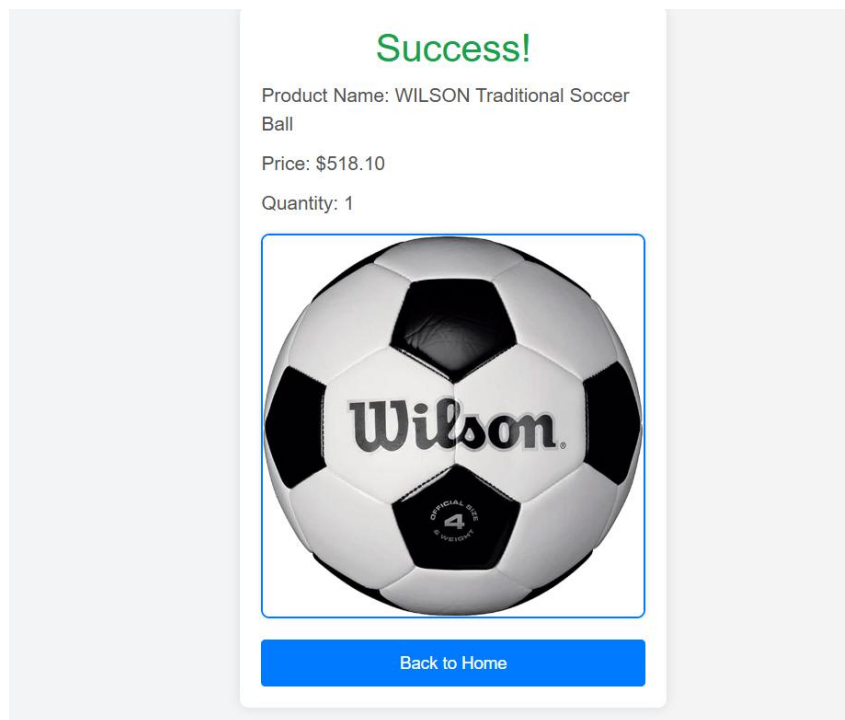


Figure 5.2.11.4: Successful payment

CHAPTER 6

Impact on Society, Environment and Sustainability

6.1 Impact on Society

The development of this location-based online marketplace has enormous promise for bettering Bangladeshi society. By empowering SMEs and providing support to small businesses, the platform has the ability to boost employment growth and economic development in local communities. Having more options and more inexpensive pricing can increase consumers' quality of life when they have better access to a greater selection of things. Additionally, by encouraging digital entrepreneurship, the project can inspire the next generation of business leaders and help create a more strong and dynamic economy.

6.2 Impact on the Environment

The platform's emphasis on transactions sourced locally could have a positive environmental impact. By connecting customers and nearby vendors, the concept reduces the need for long-distance shipping, which in turn reduces carbon emissions associated to transportation. This localized approach can help promote more sustainable buying habits as consumers become more aware of and supportive of locally produced goods. Shorter delivery routes can reduce packaging waste and encourage local businesses to adopt eco-friendly practices, both of which contribute to a greener e-commerce sector.

6.3 Sustainability

Sustainability, which takes into account social, economic, and environmental factors, is the main objective of this project. Economically speaking, the platform ensures the long-term viability and marketability of local businesses by assisting them in growing. By providing SMEs with equitable opportunities and fostering entrepreneurial abilities, it fosters inclusion and community growth on a social level. Regarding the environment, the focus on reducing travel times and purchasing locally made goods reduces carbon footprints and encourages eco-friendly company practices. The project's objective is to combine these components to create a robust, long-lasting e-commerce ecosystem that helps all parties involved in Bangladesh.

CHAPTER 7

Discussion and Conclusion

7.1 Conclusion:

This project, aimed at developing a location-based e-commerce platform in Bangladesh, addresses numerous critical needs within the country's rapidly evolving digital landscape. With the rise in internet usage and smartphone adoption, there is a significant opportunity to revolutionize the e-commerce sector by focusing on local transactions and empowering small and medium-sized enterprises (SMEs).

By connecting buyers with nearby sellers, the platform reduces delivery times and costs, enhancing the overall consumer experience. This localized approach not only supports SMEs by providing them with greater visibility and market reach but also stimulates economic growth within communities, fostering job creation and investment.

Furthermore, the project emphasizes the importance of fostering digital entrepreneurship. Through educational initiatives such as workshops, webinars, and online guides, the platform aims to equip individuals with the skills and knowledge necessary to succeed in the e-commerce space. This is particularly relevant in the post-COVID-19 era, where businesses need to be resilient and adaptable to survive and thrive.

Ethical considerations play a crucial role in the development and implementation of the platform. Ensuring data privacy and security, promoting fairness and inclusivity, maintaining transparency, protecting consumers, advocating for ethical labor practices, and minimizing environmental impact are all essential to building a trustworthy and responsible e-commerce ecosystem.

The project's dual-profile system, allowing users to create both personal and business profiles, caters to the needs of individual buyers and local vendors alike. This feature not only simplifies the buying process but also empowers local businesses to compete effectively in the digital marketplace.

By leveraging geolocation technology and promoting local businesses, the platform fosters innovation, creativity, and sustainability. It encourages the development of unique local products and business models, contributing to a more dynamic and resilient economy.

In summary, this ongoing project seeks to create a sustainable, inclusive, and innovative e-commerce ecosystem in Bangladesh. By addressing the challenges faced by SMEs and consumers, promoting local economic growth, and fostering a culture of digital entrepreneurship, the platform aims to maximize benefits for all stakeholders, driving economic development and social progress across the country.

7.2 Potential for future development

There is a lot of room for growth in the current Bangladeshi e-commerce location-based platform development project. There are numerous ways to grow and improve the platform as the digital landscape develops further, which will help customers, companies, and the economy as a whole.

- **Extension of Services:**

In order to increase delivery efficiency and dependability, the platform can expand the range of services it offers by adding on-demand delivery, subscription-based payment plans for recurring orders, and connection with regional logistics companies.

- **Advanced Analytical Tools:**

Using artificial intelligence (AI) and advanced data analytics can yield insightful data about market trends and customer behavior. These insights can assist companies in more successfully customizing their offerings and enhancing the user experience in general.

- **Improved User Experience:**

By combining user feedback and the newest design trends, the platform can be continuously improved to make it more straightforward and engaging for both consumers and sellers.

- **Development of Mobile Apps:**

The creation of a specialized mobile application can improve users' accessibility and convenience even further by enabling smooth on-the-go browsing, shopping, and profile management.

- **Social media integration:**

Businesses can attract a larger audience and promote social commerce—in which users find and buy things directly through social media platforms—by integrating their platform with well-known social media channels.

- **Growth into New Markets:**

The platform can be extended to other parts of Bangladesh and possibly to nearby nations, according to the particular requirements of each area while supporting regional companies and economic development.

- **Collaborations & Partnerships:**

SMEs can receive financial support and improved payment choices by forming strategic alliances with nearby banks, payment gateways, and financial institutions. Partnerships with nonprofit organizations and educational institutions can also aid in the promotion of entrepreneurship and digital literacy.

- **Sustainable Projects:**

More services centered on sustainability could be added to the platform, like product promotion, help for green logistics, and encouragement of companies to utilize sustainable methods.

- **Virtual reality (VR) and augmented reality (AR):**

By enabling customers to see things in their homes before making a purchase, augmented reality and virtual reality (AR/VR) can provide immersive shopping experiences that increase customer satisfaction and decrease return rates.

- **Blockchain Technology:**

Investigating how blockchain can be used to safeguard intellectual property, manage supply chains transparently, and conduct secure transactions helps strengthen the platform's security and trustworthiness.

- **Customization:**

Customer engagement and loyalty can be greatly increased by implementing personalized recommendations and tailored shopping experiences based on user preferences and purchase history.

- **Building Communities:**

By establishing discussion boards, forums, and other community-building tools, users can feel more connected to the site, which encourages them to exchange stories, offer advice, and stand by one another.

The platform can continue to improve and adjust to the shifting demands of the online marketplace by pursuing various development paths. In addition to improving the platform's value offer, this continuous innovation and growth will help Bangladesh achieve social progress and steady economic growth.

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