

MODERN E-COMMERCE WEBSITE

BY

MARUF HASAN MUNNA

ID: 181-15-1927

MD. HUMAYUN KABIR

ID: 181-15-2045

SUNJIDUR RHAMAN NION BISWAS

ID: 181-15-1741

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

Supervised By

Mr. Ohidujjaman

Sr. Lecturer

Department of CSE

Daffodil International University

Co-Supervised By

Md. Mahfujur Rahman

Lecturer

Department of CSE

Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This Project titled “MODERN E-COMMERCE WEBSITE”, submitted by **MARUF HASAN MUNNA (181-15-1927)**, **MD HUMAYUN KABIR (181-15-2045)** and **SUNJIDUR RHAMAN NION BISWAS (181-15-1741)** 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 30 October.2021.

BOARD OF EXAMINERS

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Faculty of Science & Information Technology

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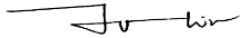
Jahangirnagar University

External Examiner

DECLARATION

We hereby declare that, this project has been done by us under the supervision of Name, Designation, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:



MR. OHIDUJJAMAN

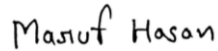
Sr. Lecturer
Department of CSE
Daffodil International University

Co-Supervised by:

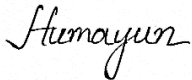
MD. MAHFUJUR RAHMAN

Lecturer
Department of CSE
Daffodil International University

Submitted by:



MARUF HASAN MUNNA
181-15-1927
Department of CSE
Daffodil International University



MD. HUMAYUN KABIR
181-15-2045
Department of CSE
Daffodil International University



SUNJIDUR RHAMAN NION BISWAS
181-15-1741
Department of CSE
Daffodil International University

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First, we hereby declare that, this project has been done by us under the supervision of **Mr. Ohidujjaman, Sr. Lecturer**, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

Nowadays people want to shop from home. But in this case, finding out from which platform to buy cause a lot of suffering for people. So, we want to create an e-commerce website where people can order the product of their choice from home, and get it at home. The customer can get his product through payment or cash on delivery. Our website is user-friendly so people can easily understand it and use it very easily. We will provide the highest level of customer service on our platform and also providing fast delivery to customers. If there is any problem after delivery of the ordered product, the customer can change it again. In this case, there is no need to pay the delivery charge again. We will integrate Sslcommerz payment gateway so that user can pay and get products without any hassle and by our QR code verification system your order and payment will be secured. Not only that but also, we will integrate chat bot that will help customers to understand our site functionalities and we will also create real-time chat messenger. With our chat messenger customers can directly contact with our admin in real time.

Keywords: E-Commerce, E-Business, Sslcommerz, QR-code, Real-time Communication.

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CHAPTER 1

Introduction

1. Project Overview

Our project is a modern ecommerce platform. Not all kinds of things are available in all the markets of our country. There are so many things we have to go far and wide to buy. It is a waste of our time as it is a waste of money. By our ecommerce people from all over the country can easily buy products at home. Not only this we actually want to create trustable and secure business environment. We have paid the most attention to the security of our website. And our platform is very practical and user friendly. For any kind of problem related to buying from our website there is always an admin connected with user through real-time messenger. We've added a secure payment verification system to protect users from fraud. Our project is Web-based platform. Web-design is a field of study that offers many skills and disciplines for the creation and upkeep of various types of websites. Web graphics design, interface design, writing, user experience design, and SEO are just a few of the numerous branches of web design. The word web design is commonly used to describe the front-end design process of a website, which includes authoring mark-up. In the broader spectrum of web development, web design and web engineering overlap to some extent. Web development, on the other hand, explains how to create an internet website. Web development can range from simple text-only static pages to complex web-based online applications. Web development encompasses a broader range of responsibilities such as web engineering, web design, web content creation, server-side programming. Based on the web we want to make a Trustworthy and secure ecommerce platform and business environment. Here people can purchase any product they need from home.

1.1 Motivation

In simple words, motivation is the process of setting your life goal. Many of us can't tell the difference between motivation and inspiration. I often confuse inspiration with motivation. I hope we can understand the meaning of these two words by giving a simple example. Suppose you are out on a very cold winter night. Now you want to light a fire to save yourself from the onset of winter. Now if you want to light a fire, you must have a piece of wood as fuel. Finally, you lit a fire with wood and warmed yourself. Your goal here is to survive the winter. Fire is your motivation that helps you stay warm and ultimately the pieces of wood are your inspiration. So basically, Motivation is a cause or condition that motivates a person to do something or to want to do something. The most important thing in our life is time. Many times in life we waste our time in the market. At that time we could do a lot of important work. Now technology has improved as well as our communication system has improved. Now people don't have to go out of the house for all the work. People can do a lot of work sitting at home. This saves a lot of time. The thought of creating e-commerce came to my mind from this thought. By creating ecommerce we can easily deliver goods to those who are far away from the market in the impenetrable area of the village.

1.2 Objective

The major goal of people is to be able to buy the domestic and foreign products of their choice at the right price from home. It will save a lot of time and effort because everyone is so busy.

A brief Objective of our project:

- Users can place orders for their products in the order section based on their interests.
- To create a framework that automates the procedures and allows for flexible configuration of the Online Product Ordering System based on the needs of the client.
- Design and construct an online ordering system that will allow all users to manage their orders more efficiently.
- To create a completely functional and user-friendly system for managing an online store. Develop the system for online use, for example. People will appreciate it if you save them

time and effort. Create a system that must meet customer service requirements. To create a system that can handle a huge number of orders at the same time.

- Creating a secure and Trustworthy business environment.

1.3 Limitations and Scope

Bangladesh is a developing country. There are some underdeveloped areas as well as some developed areas. Not all kinds of things are available in all the markets of our country. There are so many things we have to go far and wide to buy. It is a waste of our time as it is a waste of money. If we have an e-commerce company in our country, then people from all over the country can easily buy products at home. This is a sign of coming for an e-commerce organization. On the other hand, the transportation system of our country is not very good so the e-commerce company has to take a lot of risks to deliver the product to all parts of the country. So, in the end we can say that there are advantages as well as disadvantages for a new e-commerce organization. All the developed countries of the world now rely on e-commerce. So, we should forget the difficulty and think of the development of the country and build such a platform.

1.4 Possibility of a Future Career

This website's structure has a lot of room for improvement. This effort is simply the beginning of the project's structure. If more components are needed, we can add them later. More use cases for diverse reasons can be characterized in the future. The backend portion of the task has been completed by the other group. They will also make some essential improvements.

CHAPTER 02

Background

2. Terminologies

Our platform aims to create an e-commerce website where people can order the product of their choice from home, and get it at home. The customer can get his product through payment or cash on delivery. Our platform is accessible, flexible, and affordable for the User and consists of gamification in the user experience to give the users an energetic vibe when they visit our platform virtually anyone with an internet connection can buy any product from Shoppingbd.

We are providing features are as follows:

- Online-based market platform.
- Online & offline payment.
- Online support.
- Return policy.
- User friendly system.
- Secure business environment.
- Live communication with admin.
- Secure payment verification system.

2.1 Challenges

The biggest challenge for us was to get people to trust the online shopping system. We have said before that people of our generation do not know much about technology and do not believe in online money transactions. Creating a system that will be user-friendly and provide maximum security in transactions is the biggest challenge for us and we have tackled it successfully.

2.2 Related Work

Ebay, Flipkart, Daraz, Amazon, Best Buy and a slew of other e-commerce sites may be found online all over the world. They are also known as e-business or electronic business, and they basically involve the selling and purchase of services and goods over an electronic medium, such as the internet, as well as data and financial transfers between two or more parties. This is what everyone is familiar with when it comes to purchasing online. When someone sells something online, they want to be sure they know what they're doing and who they're selling to. He can create a long-term relationship if he pleases his customer. So, if you're running an online business, one of the most vital things to attract satisfied customers is to have a well-designed website. With our ecommerce system, we can attempt to handle our problem in a way that is more convenient for institutions. There will be a record in websites on our project where we can easily find all kinds of necessary things such as gadgets, accessories, clothes, etc. It is also beneficial to any type of seller because he or she can easily sell their products through us. So, it differs from other ecommerce sites due to its live contact system with admin, as well as the fact that it is simpler to use and there is a helping bot for customers so that anyone can easily use our website.

2.3 Summary

This is an eCommerce system in which there are a large number of websites on the online sourcing system. There are some websites that are comparable to this sort of eCommerce, but it stands out because of the user-friendliness, and secure payment system, and live contact with admin, as well as the fact that it is easier to use and there is also an automatic bot available for help in this website. We use python and django in this project, and SQLite for the database. SQLite is a database administration contained in a c library. Its use as an embedded database in application software such as web browsers for client storage. So, in this project, we may try to solve our buy and sell product problems, as well as a variety of other things to make it easier to use these ecommerce sites, which are also quite useful to both customers and sellers. This ecommerce solution addresses our issue by making it easy for institutions to do business. We take advantage of Django is a free and open-source web framework based on Python. Its main purpose is to make it easier to create complicated, database-driven websites. This also includes the ability to create, read, update, and delete administratively, as well as the ability to use Python. This is a high-level programming language that can be used for a variety of applications. Python is a programming language with techniques and an object-oriented approach aimed at assisting programmers in writing clear, logical code for both small and large-scale projects.

CHAPTER 03

Specification Required & Proposed Model

3. Need for software

To create this website, the following software has been used:

- User-Centered Design – UX Design Process.
- Figma- used for UI design & Prototyping.
- HTML5- All pages are designed using HTML layout.
- CSS3- 40% designing parts covered by this.
- Bootstrap 5- 60% of designing parts are covered by this.
- JavaScript- All validation responsibility and animation tasks are generated by JavaScript.
- JQuery- Usually handles events, performs more actively, has a lot of efficiencies, and adds Ajax support in web applications.
- Python - Programming Language.
- Django- All the logic is implemented in Python web Framework, which uses Python Language.
- SQLite Database- Sqlite3 has been used as a database of the project.
- SSLCommerz- SSICommerz use for payment method.
- WebSocket & channels - WebSocket & channels are python packages Used to implement a chatting system.
- Dialogflow - used to implement a chatbot.
- Visual Studio Code for code editor Development Environment.

3.1 ER Diagram in our site

In our diagram we have we can see 12 entities. They are User, Account, Cart, Cart Items, Product, Payment, Category, Sub-Category, Variation, Order, Order Product, Review. Each entities has multiple attributes. The ER-Diagram of our website is shown in Figure 3.1

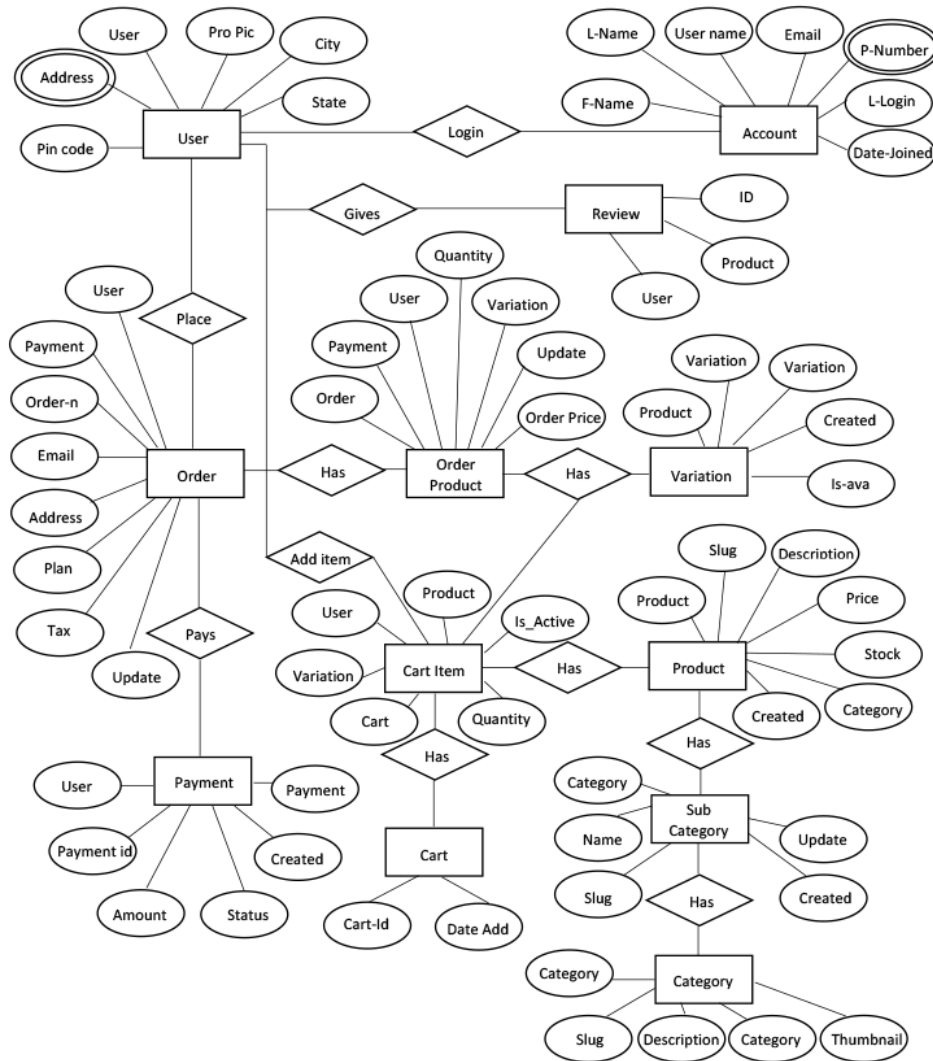


Figure 3.1: ER-Diagram of our website

From this diagram we can understand depicts relationships among User, Account, Cart, Cart Items, Product, Payment, Category, Order, etc concepts or events within our eCommerce website. We also can understand connection and relation between all entities by this diagram.

3.2 Buyer Flow Chart

By Flow chart diagram we can easily understand how a customer can buy products from our website. The Buyer Flow Chart is shown in Figure 3.2

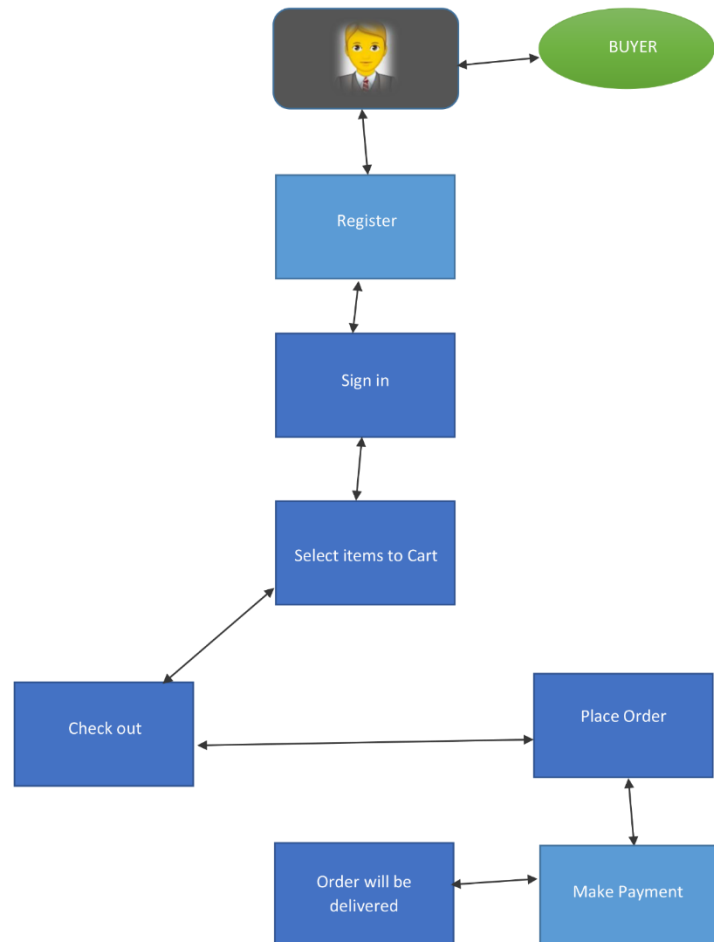


Figure 3.2: Buyer Flow Chart

If any customer wants to buy a product from our site at first he has to register in our website. Then after verifying his account he can sign in to the account. Now for buying any kind of product he has to select the item to the cart. Users can add as many products as they want. Then after filling address He has to check out and makes payment through sslcommerz. After successful payment order will be confirmed. Then Ordered products will be delivered to the user.

3.3 Use Case Diagram

This is a simple use case diagram of our website shown in below. By this, we will understand how our customer can interact with our website. The Use case diagram of our website is shown in Figure 3.3

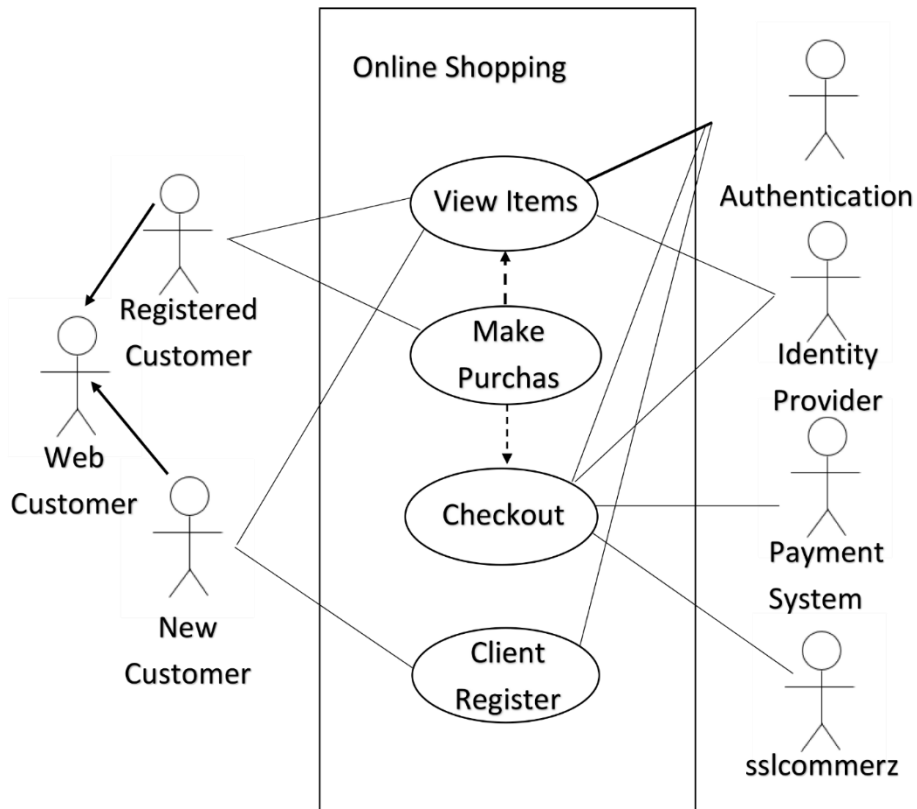


Figure 3.3: Use case diagram of our website

New customers can view items and do registration on our website but they can not make purchases before registration. Registered Customers can view items and make purchases. The payment system is linked with the Checkout option before checkout payment is not possible and without payment, the order will not be confirmed. In the payment system, we used sslcommerz payment gateway that is also linked with checkout. After purchasing the product customer user can directly

go to checkout or can go back to the view items section. Authentication is connected with register, checkout, and view items. After Successful payment order will be placed.

3.4 Segmentation of Customer

Now a day E-commerce website are very attractive to customers. So, we Use segmentation of customer our E-commerce Website is primarily designed to sell a variety of products and Our website is interestingly designed and designed with customer in mind, it is very user friendly so customer can use it very easily. Our website is divided into different product for children and adults and different products for boys and girls and many more. Segmentation of Customers diagram is shown in Figure 3.4

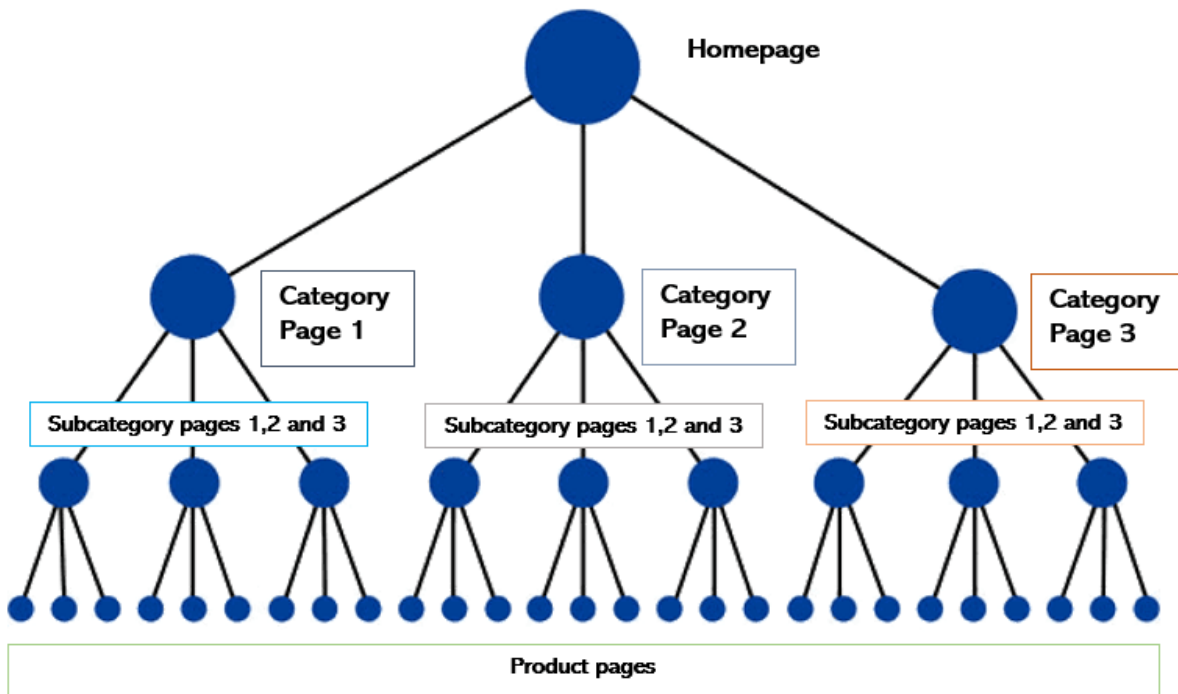


Figure 3.4: Segmentation of Customers

3.5 E-Commerce in Bangladesh

E-commerce is growing very fast in Bangladesh. The growth of this sector over the last four years is about one hundred percent. In other words, this sector is nearly multiplying each year. According to the E-Commerce Association of Bangladesh, about Taka 700 crores is being transacted in this sector every month. In other words, the annual turnover is now more than eight thousand crore Taka. If the growth rate of one hundred percent continues, it will be a business of 16 thousand crore taka next year. At the moment in Bangladesh, about seven hundred and fifty companies are associated with e-commerce. All kinds of products are now bought and sold in Bangladesh. These include perishable goods, fruits and vegetables, as well as clothing and electronic goods. The global retail ecommerce sales chart is shown in Figure 3.5

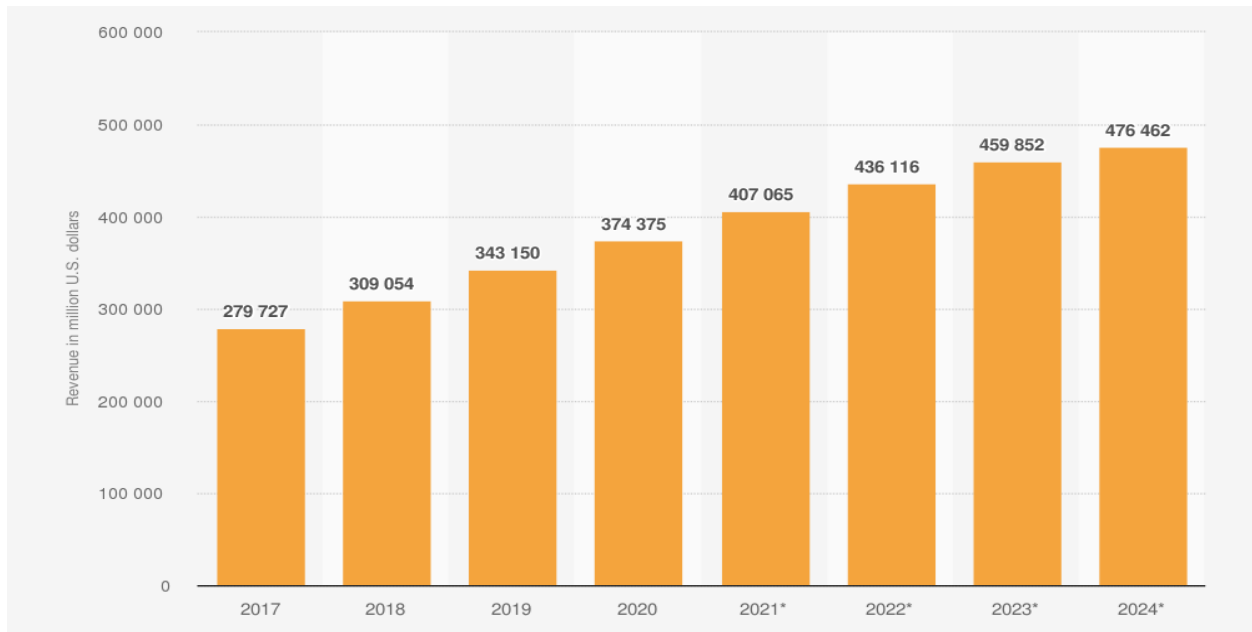


Figure 3.5: Global retail ecommerce sales

Retail ecommerce sales in 2017 was 278727, 2018 was 309054 and thus 2024 will be 476462. So, that we will say future prediction of sales will better.

However, contrasted with countries that are already developed Bangladesh's e-commerce business is as yet in its early stages. Despite the fact that orders can be placed online, the maximum of the

transaction is in cash. This process is called cash on delivery. Even if the order can be placed online, it's far confirmed again through calling from the call center. The e-commerce corporation delivers the product to the client and brings the price in cash. consequently, full-fledged e-commerce has not launched yet in Bangladesh. The Growth statistics of E-commerce chart is shown in Figure 3.5.1

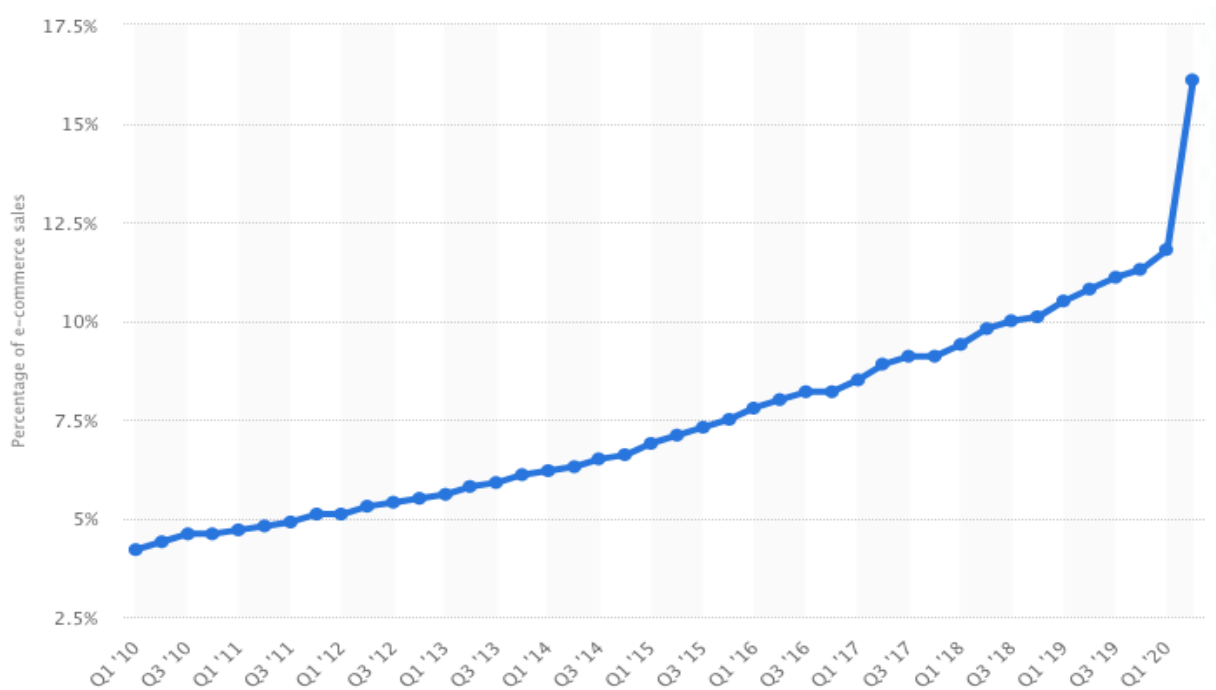


Figure 3.5.1: Growth statistics of E-commerce

Bangladesh has seen an increase in online transactions in recent years. As the standard of living rises, so does the standard of living. As a result, buying habits have shifted dramatically. The e-commerce business in Bangladesh began in the late 1990s, but it was unable to expand quickly. Banking, logistics, communications, and payment systems have all improved throughout time, providing opportunities for the e-business industry to grow. The online payment system is now used by a variety of industries, including banking. The cash-on-delivery system has become more accessible as consumers have access to credit, debit card, and digital wallet services. Now the percentage of e-commerce selling gradually increased.

There are 3 main obstacles to the spread of e-commerce, first people still do not fully trust e-commerce companies. The second problem is that a reliable delivery system has not been developed in Bangladesh. The Bangladesh Postal Department has recently started trying, but so far they have not been able to set up e-commerce delivery systems across Bangladesh. Another big problem is that there is no reliable payment system. Although limited e-commerce can be introduced in big cities, 80 percent of the country's rural population is out of its reach. Many small and medium entrepreneurs are now associating themselves with their own e-commerce platforms. Buyers are also building confidence in their products. Now we have to continue this trend. We have to continuously improve ourselves through effort and proper strategy. Internet users are growing across our country, the delivery capacity of e-commerce companies has also increased and the digital payment infrastructure is growing in parallel. But these are working as the basis for the development of the e-commerce sector.

However, much will depend on technological transformation in the future. Now the days of 4G are going on, 5G will come in front, the amounts of internet-based services will increase. People will also become accustomed to taking advantage of more technology. The investment will increase. All this is an indicator of the future development of the e-commerce sector.

CHAPTER 4

Discussion of Experiments

4. Introduction

We are attempting to create an ecommerce platform where users can do real-world purchases online. Basically, our website is a place where you may buy any products. Consumers can quickly order, pay instant and purchase their necessary things and get products at home. However, for anyone who wishes to buy foreign or any kind of product that is not available in the local market then it is possible to buy from our marketplace.

4.1 Front-End Design

We use html, css, javaScript, and jQuery for front-end design. HTML stands for hypertext markup language, and we use it in our project to define the content structure and meaning by defining headings, paragraphs, and images. CSS stands for Cascading Style Sheets, and it is a presentation language used to style information using fronts and colors. The Frontend Implementation of our website is shown in Figure 4.1

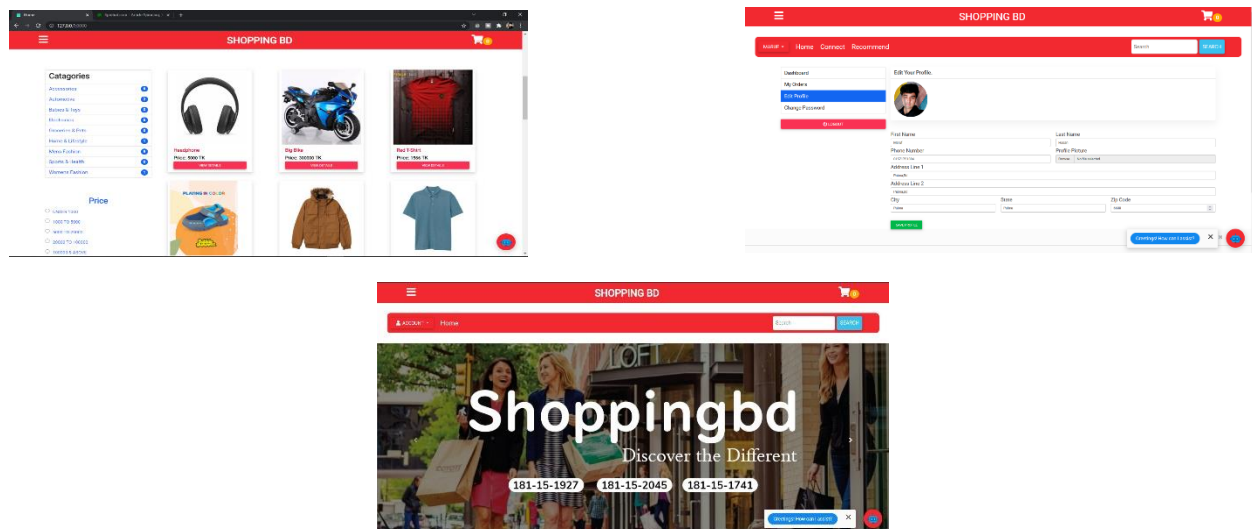


Figure 4.1: Frontend Implementation

Html and CSS are self-contained and should be kept that way. CSS should not be written inside an html document in our project, and vice versa. CSS will always represent the fronts and colors,

but HTML will always represent the content. Elements, tags, and attributes are three common HTML terms that we should start with. We use javascript, a multi-paradigm language that supports event-driven, function-driven, and imperative programming styles. It also has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the document object model, but it does not include any input output (O/I), such as network, storage, and graphics facilities that the host environment provides (APIS). Javascript is also integrated in a variety of application frameworks, such as electron and Corodova, which necessitate the use of javascript. On our website, we use javascript for the purpose of jquery.

4.2 Back-End Implementation

This project is a web-based E-commerce solution with consumer segmentation. In this project, we use Python, Django, and SQLite for the database. SQLite is a c library that contains a database management system. This isn't a database engine that works with clients and servers. SQLite is a popular choice for client storage in applications such as web browsers. Django, on the other hand, is a free and open-source web framework based on Python. This Django is designed to make building complex, database-driven websites easier. This framework allows components to plug into each other, resulting in less code and lower costs. we also use web socket for real-time communication. The Backend Implementation of our website is shown in Figure 4.2

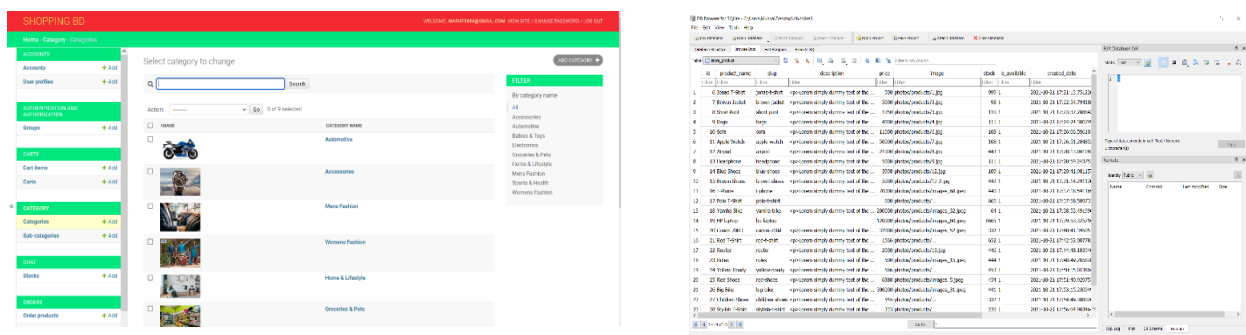


Figure 4.2: Backend Implementation

4.3 Database Schema

Database is the life of any website. The basic structure of a website is based on the database. The database is where all the data of a website is stored. We have used the sqlite3 database on our website. This is an SQL-based database. The Database schema diagram is shown in Figure 4.3

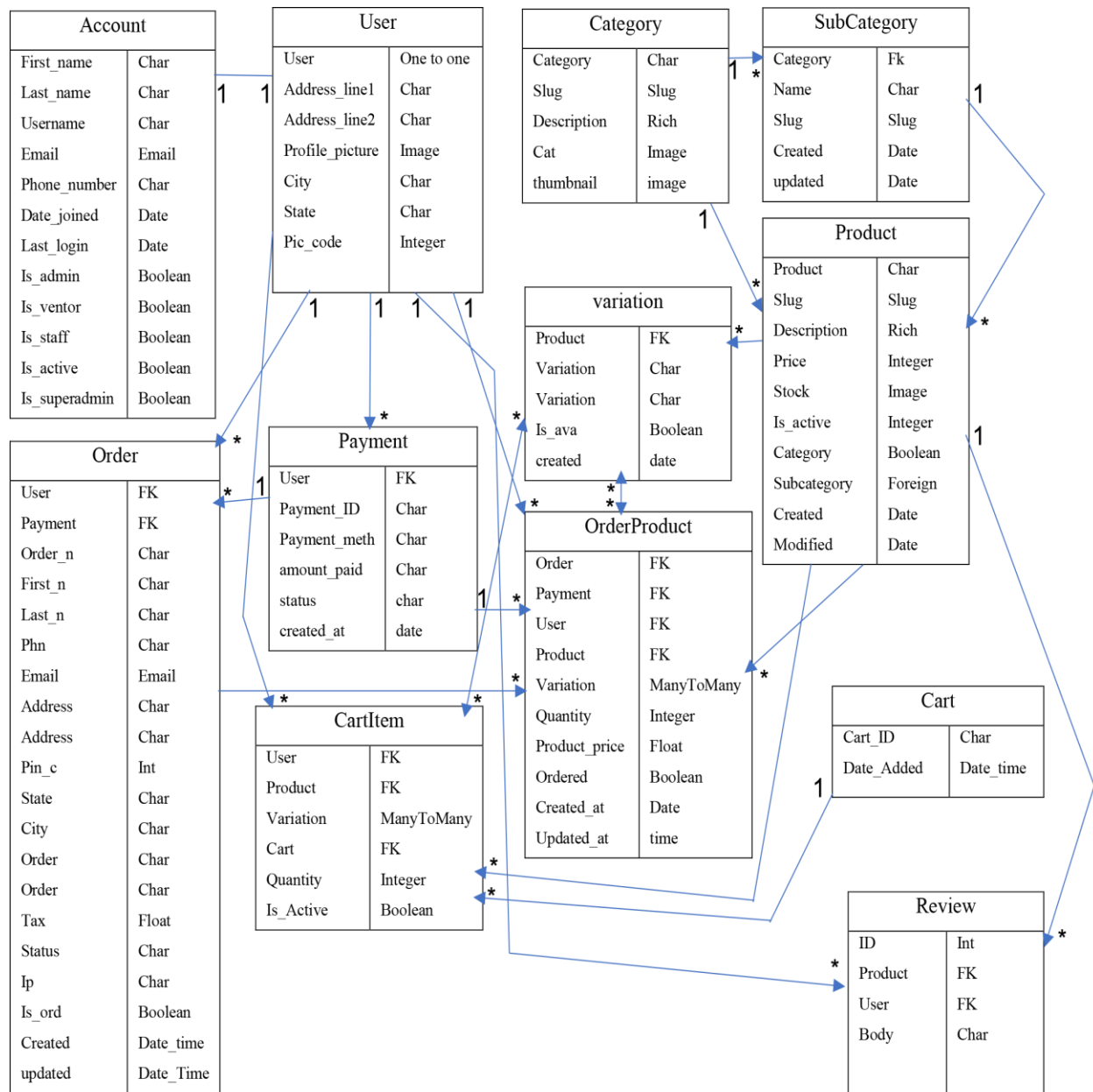


Figure 4.3: Database schema diagram

For making queries in the database we used Django ORM. It ensures the most efficient use of server hardware to handle the request.

CHAPTER 5

Functionality of Our Website

5. Home Page

From here users can search for any product. Navigate through any kind of category and subcategory. They can filter products by price, visit their account, check the cart, can log out. We used multiple carousels on our website. We did a lot of graphic work for building that. In our beautiful carousel, our website shows the latest product for users. From the footer section, they can find our address, mail, phone number, etc. The home page of our site is shown in Figure 5.

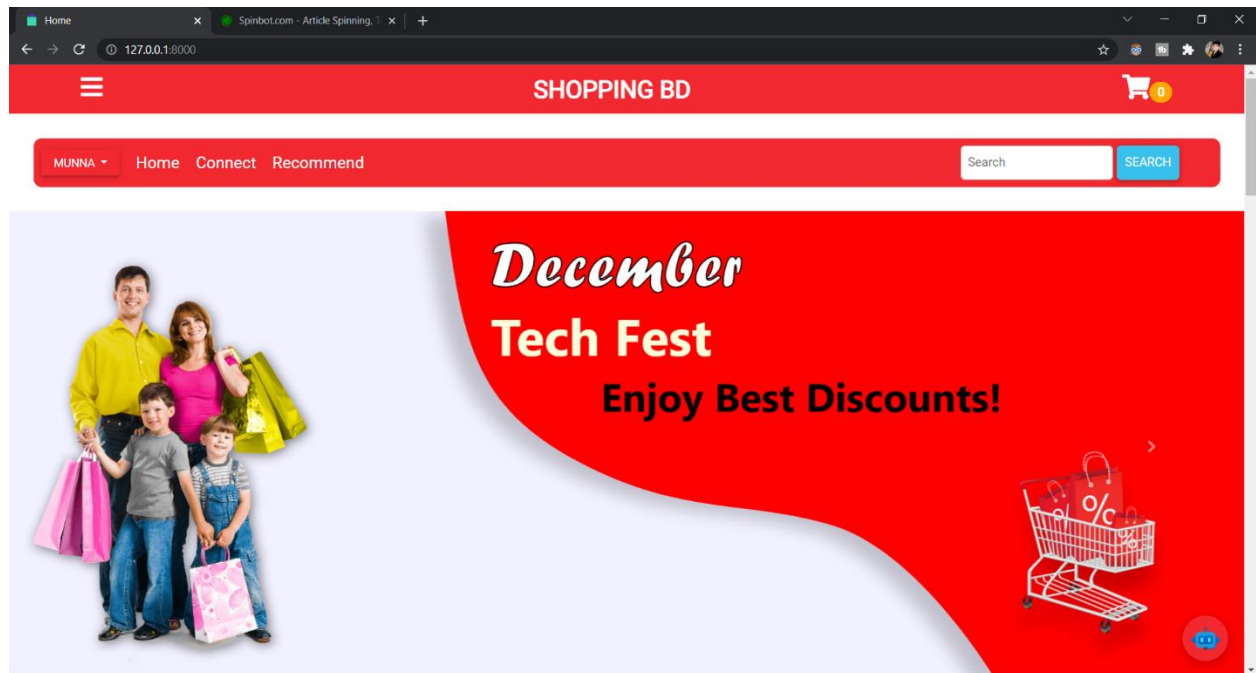


Figure 5: Home Page

From here users can search for any product. Navigate through any kind of category and subcategory. They can filter products by price, visit their account, check cart, can log out, and from the footer section, they can find our address, mail, phone number, etc.

5.1 Products View

Here all the products are served to the customers and where they can search products by category, sub-category, price range, product name and buy their essential things. In each product card, they can see the product name and price. Even in the category and subcategory menu, they can see the total number of products available. This is a dynamic menu, If the user is in the category menu then a subcategory menu will appear otherwise it will show category. In the search menu, we added the most advanced algorithm for the searching products.it a search product by name, part of a name and description also. The product view of our website is shown in Figure 5.1

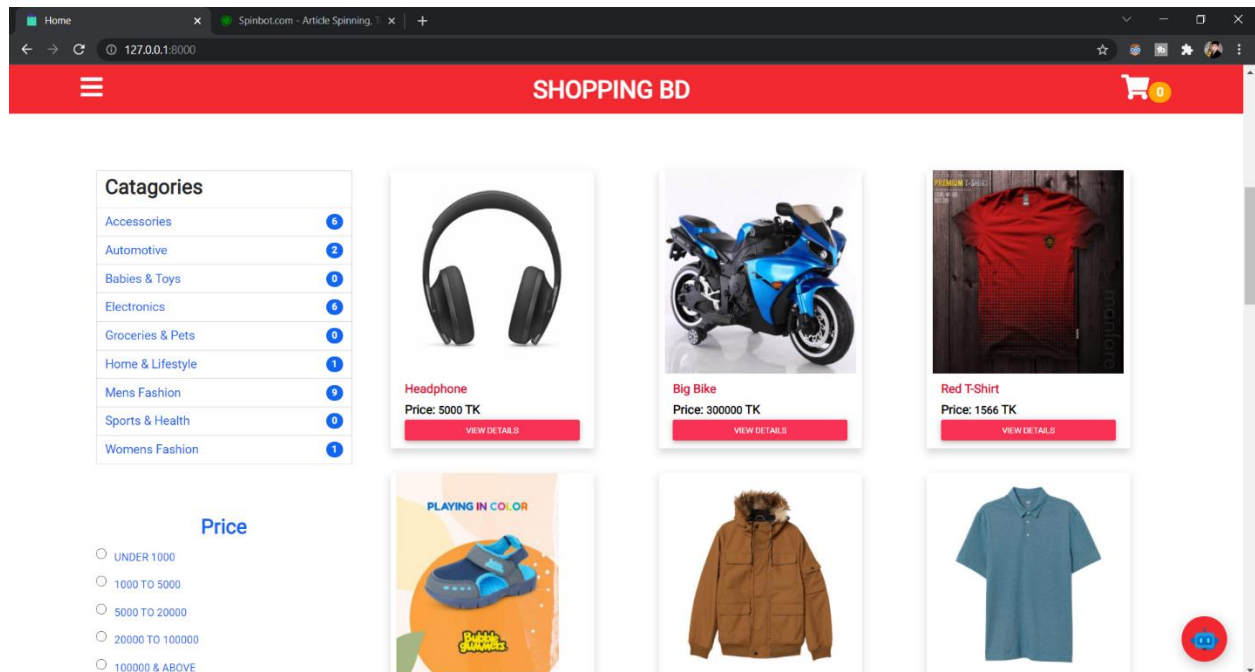


Figure 5.1: Products View

By clicking the view product button they can go to the product details page. From there they can buy products and can add products to the cart. If any product is not in stock then the view details button will hide and the product card will show stock out. From the bottom of this page, users can access our chatbot and can get help.

5.2 Details of Products

In this view, people can see details of the product, rating, and review, not only that but also they can give their own review choose the variety and add to cart. The details of products of our website is shown in Figure 5.2

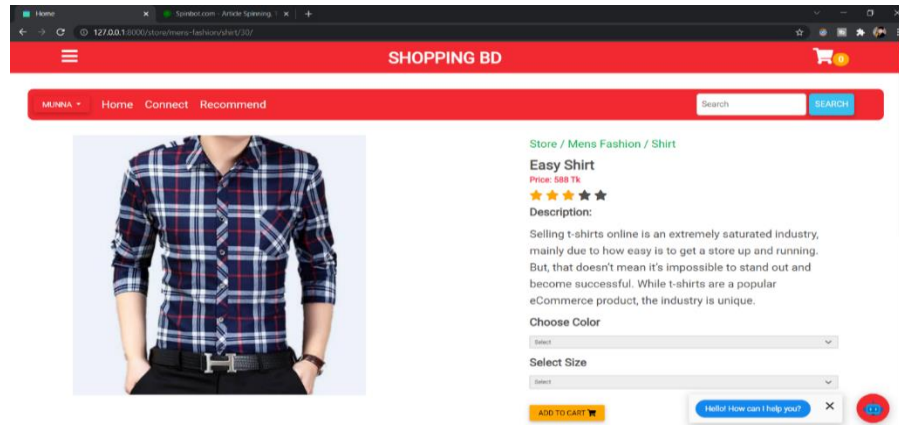


Figure 5.2: Details of Products

5.3 Cart Page

- ✓ Order Management such as add and cancel products,
- ✓ Increasing and decreasing the quantity,
- ✓ See the total amount of price of products,
- ✓ Place order for checkout

The cart page of our website is shown in Figure 5.3

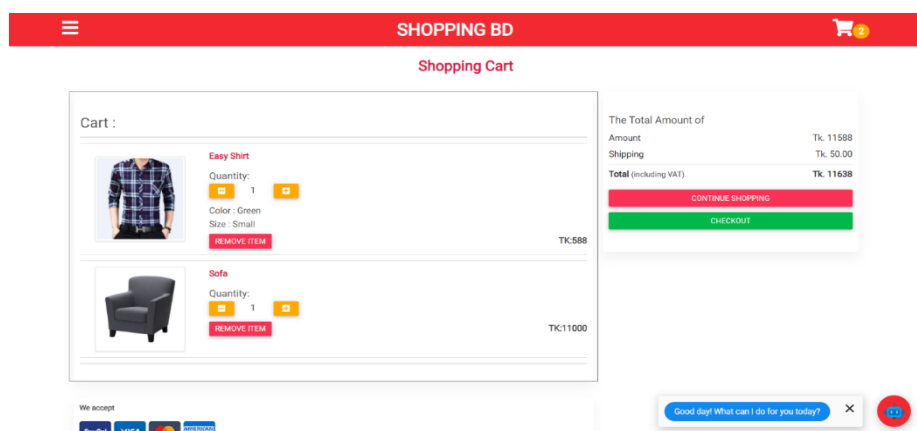


Figure 5.3: Cart Page

5.4 Review order and make payment

Finally, from here, customers can review their purchases and make payments. On this page, users can check which product they bought and check their given address for product delivery. They can also check the sub-total price, which variants product they chose. This is the page from which the order has to be confirmed. The Review order and make payment is shown in Figure 5.4

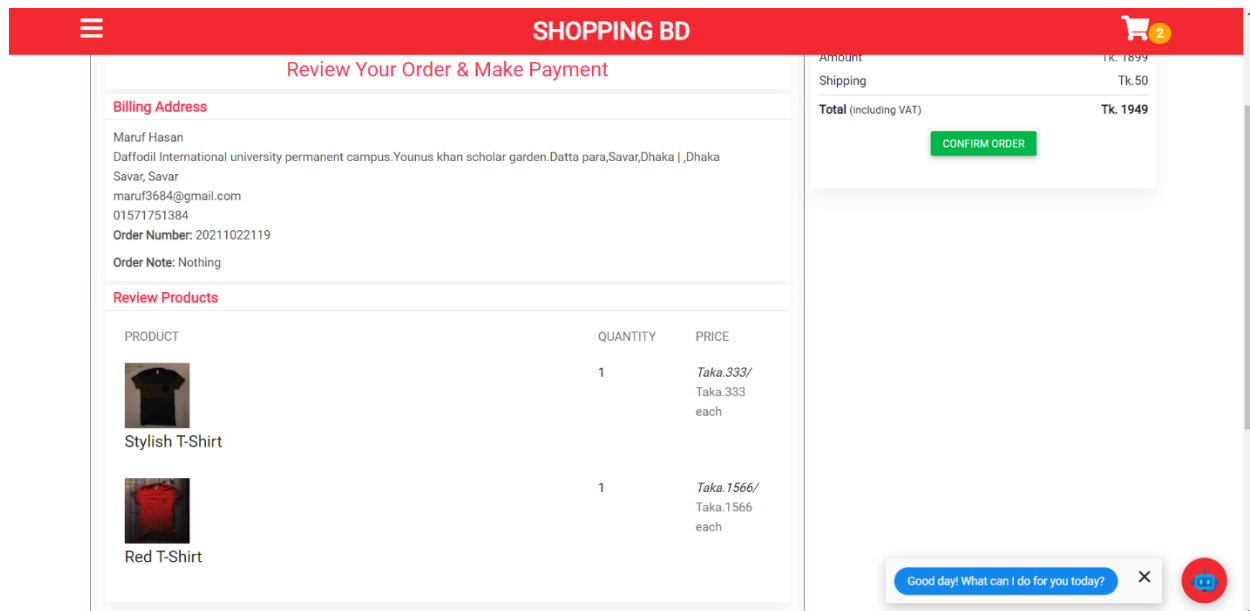


Figure 5.4: Review order and make payment

We can see an order confirm green button here. By clicking this button user can make a payment. after clicking that button user will redirect to the sslcommerz payment gateway page and from there the user can make a payment. if the user clicked that button then his/her cart will automatically set empty. By any chance, if the user is unable to pay for any reason, his order will be placed, but the Payment section will not show a green mark. And he will be directed to the Payment, not Success page.

5.5 Payment System

The payment gateway system is one of the most important parts of an eCommerce website. It must be secure and user-friendly. And all types of payment methods must be available. The payment of our website is shown in Figure 5.5

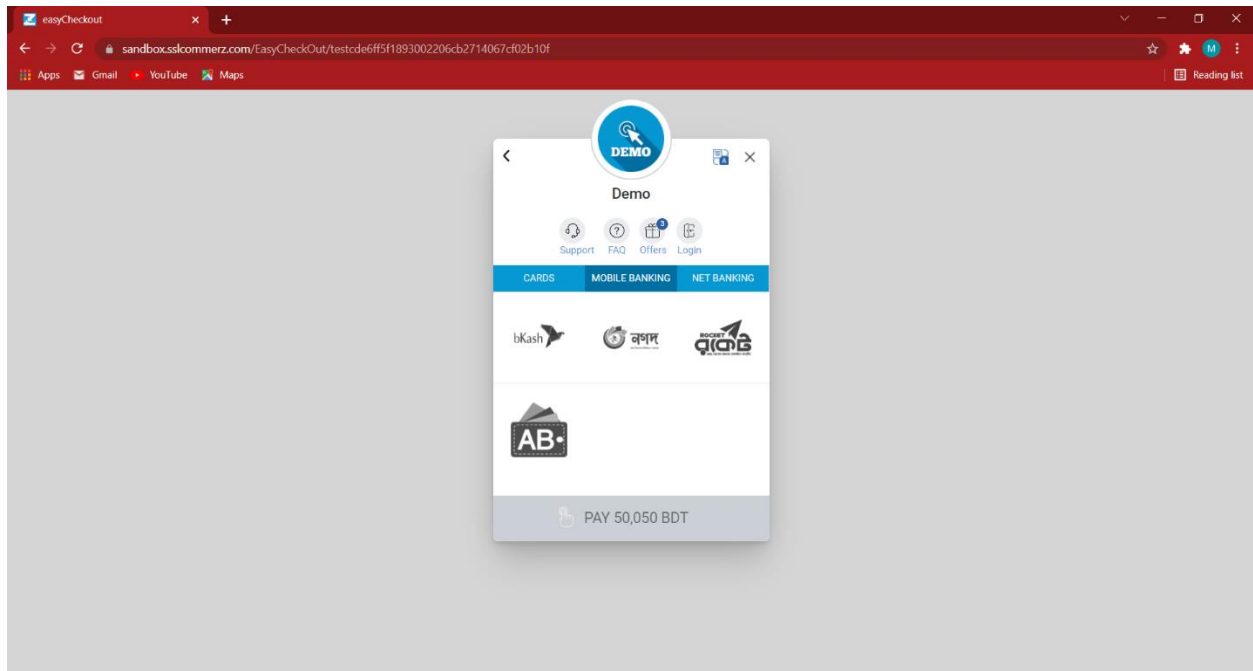


Figure 5.5: Payment

We integrate SSLCOMMERZ Payment Gateway on our website. This allows customers to easily buy and pay for their purchased products. sslcommerz is the most secured payment gateway in Bangladesh. All kind of payment system that is available in bd is attached with sslcommerz. Even though sslcommerz has its own security system, we have added our own security layer to protect the user's payment. Although sslcommerz provides a unique id for each payment. we generate separate unique IDs for all payments and orders for everyone to facilitate verification.

5.6 Payment and Order Verification by QR-Code

Generate QR-Code: This is our QR code verification system. After successful payment user will get a Qr-code. That QR code will contain all the sensitive information about payment and order such as who bought that product, what is the payment Id, what is the order id etc. It will give the user extra security. We used a couple of python libraries for generating unique qrcode for each successful payment such as UUID for generating unique id, pillow for image processing and creating the code, and many more. The Qr-code for payment verification is shown in Figure 5.6

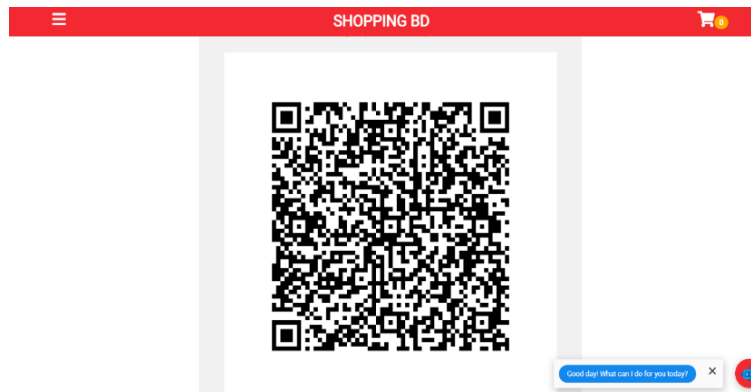


Figure 5.6: Qr-code for payment verification

Scan QR-Code: Scanning QR-code is very easy. There are many QR-code scanner android & ios apps in the store. Users can scan and extract information from QR-code in just a second. By scanning QR-code provided by our website users will verify their payment. And he can keep the code for further verification if it needs anytime in the future. The Qr-code scan result is shown in Figure 5.6.1

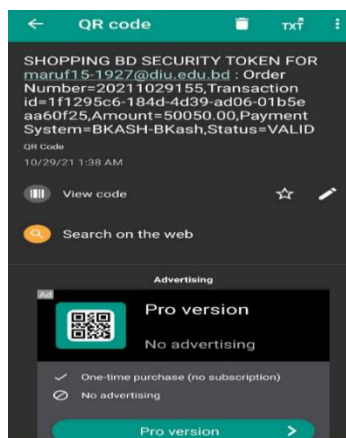
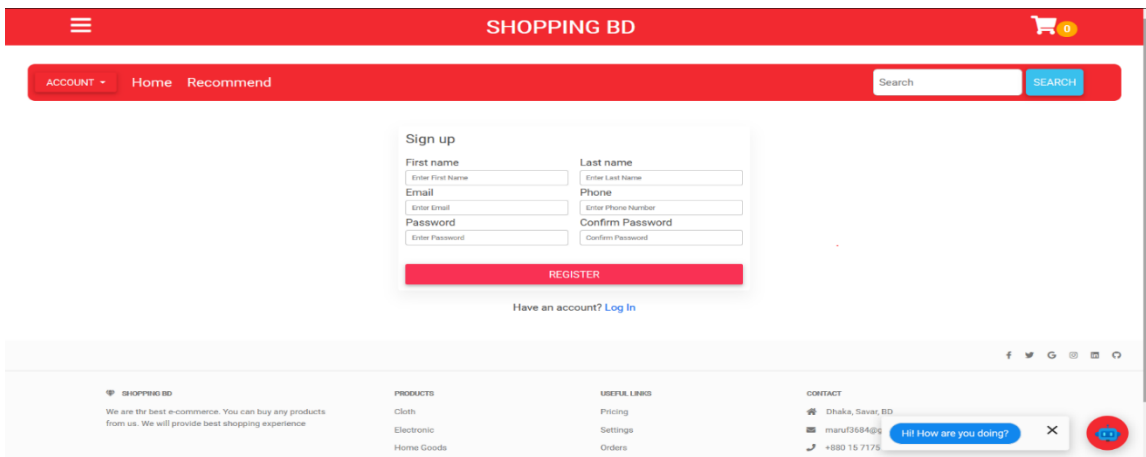


Figure 5.6.1: Qr-code Scan Result

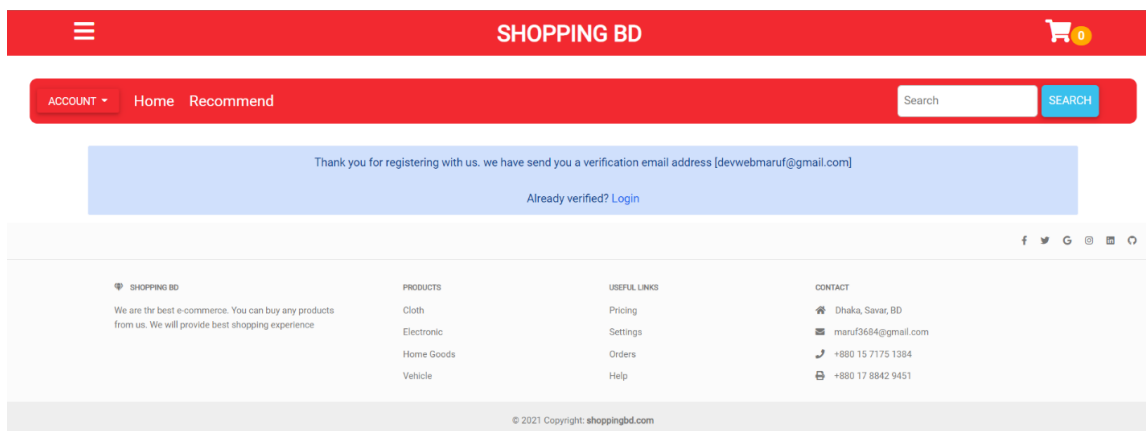
5.7 Customer Registration

For purchasing from this website customers must have to register by their valid email address and go through the email verification process. When first-time users register on our website a verification email will be sent to their mail address and the user have to hit the activation URL from their mail then their account will activate. Without activating the account user can not buy anything from our website. We used a very secure algorithm to generate each activation link for the user. And most impotently our activation link is one-time usable. No one can use it again and again. That much secure is our website. The Customer Registration and Email Verification is shown in Figure 5.7 and 5.7.1



The screenshot shows the 'Sign up' form on the SHOPPING BD website. The form is centered on a white background with a red header. The header contains the 'SHOPPING BD' logo, a shopping cart icon with '0' items, and navigation links: 'ACCOUNT', 'Home', and 'Recommend'. A search bar with a 'SEARCH' button is also present. The 'Sign up' form includes fields for 'First name', 'Last name', 'Email', 'Phone', 'Password', and 'Confirm Password'. A red 'REGISTER' button is at the bottom of the form, followed by a link: 'Have an account? Log In'. The footer contains social media icons, a 'Hi! How are you doing?' chat bubble, and contact information: 'Dhaka, Savar, BD', 'maruf3684@gmail.com', and '+880 15 7175 1384'.

Figure 5.7: Customer Registration



The screenshot shows the 'Email Verification' page on the SHOPPING BD website. The page features a blue confirmation message: 'Thank you for registering with us. we have send you a verification email address [devwebmaruf@gmail.com]'. Below the message is a link: 'Already verified? Login'. The footer contains social media icons, a 'Hi! How are you doing?' chat bubble, and contact information: 'Dhaka, Savar, BD', 'maruf3684@gmail.com', and '+880 15 7175 1384' and '+880 17 8842 9451'. A copyright notice is visible at the bottom: '© 2021 Copyright: shoppingbd.com'.

Figure 5.7.1: Email Verification

So, there is no chance of cheating by creating fake accounts. Our system is very safe and secure.

5.8 Sign In

- ❖ After registration customer can Sign in our website,
- ❖ Sign in user can access all the functionalities of this website.

The sign in page of our website is shown in Figure 5.8

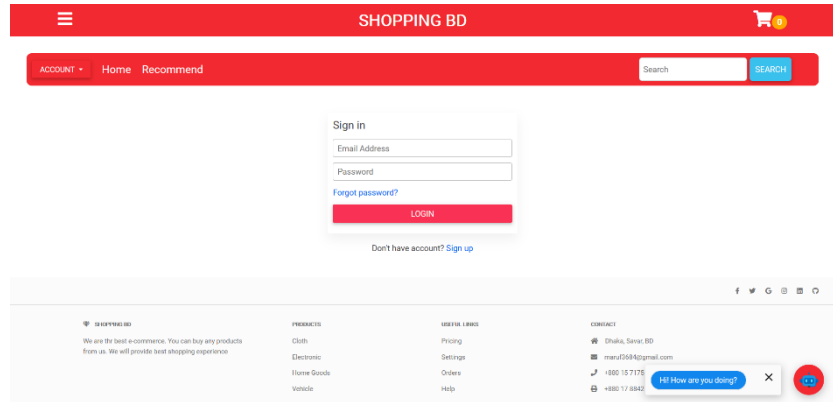


Figure 5.8: Sign In

5.9 Forgot Password

Customers can access their account if the password is lost but in this case, they have to go through the most secure email verification process. The forgot password is shown in Figure 5.9

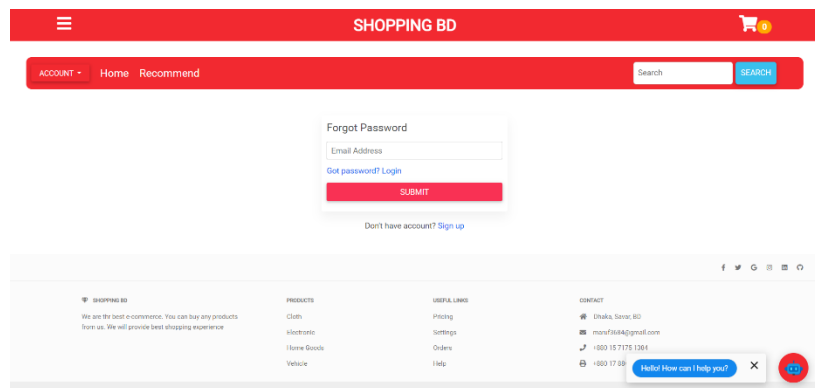


Figure 5.9: Forgot Password

We used token-based authentication for signup and login on our website. That is the most secure and efficient technology till now.

5.10 Customer profile management

We give multiple option to user for managing their profile. They are given in below:

- ❖ **Dashboard-** Customers can view their total number of orders,
- ❖ **My Orders-** Customers can view their orders as a list,
- ❖ **Edit Profile-** Customers can edit their profile information as needed,
- ❖ **Change Password-** Customers can change their password for better security,
- ❖ **Order Details and Status-** Customers can view the details and status of their orders.

The dashboard of our website is shown in Figure 5.10

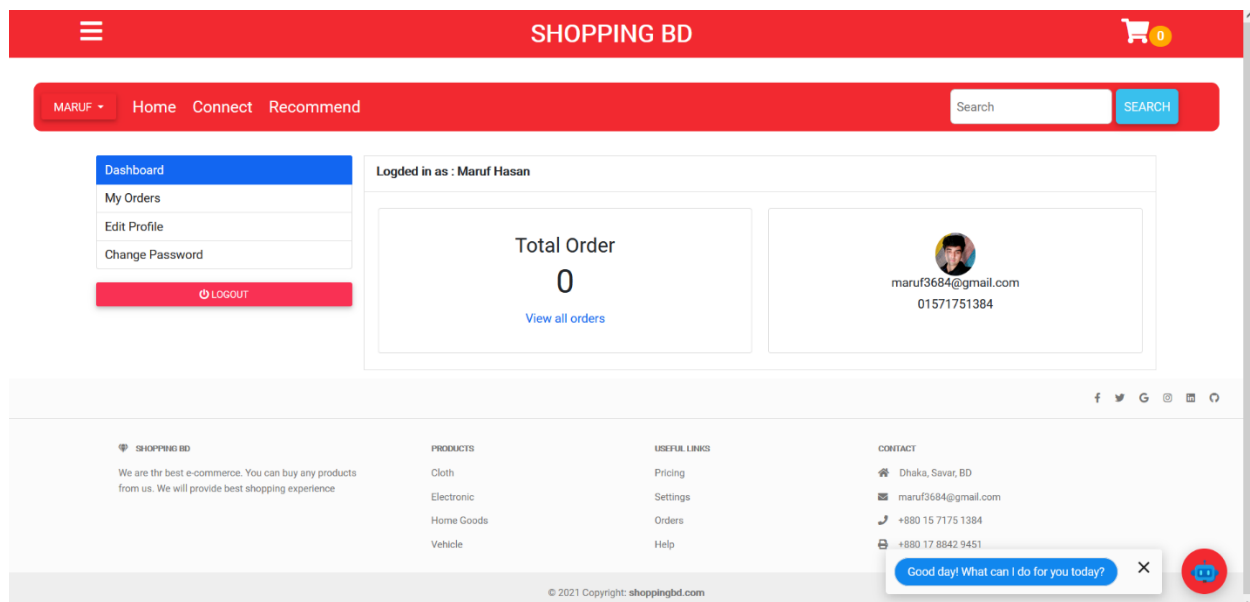


Figure 5.10: Dashboard

Basically, this is the all control panel for the user. From here user can access their dashboard, view order, edit their profile, and change their password.

5.11 Details view of profile options

In Dashboard, the user can see the total number of orders, email, and phone number. In My orders section customer can see all of his orders. And by clicking order they can see order details. In Order Details page Customers can see specific order details such as order id, transaction id, Total price of ordered products, order date, etc. They can also see the delivery status which can be updated by the admin. The Combine Figure of user profile is shown in Figure 5.11

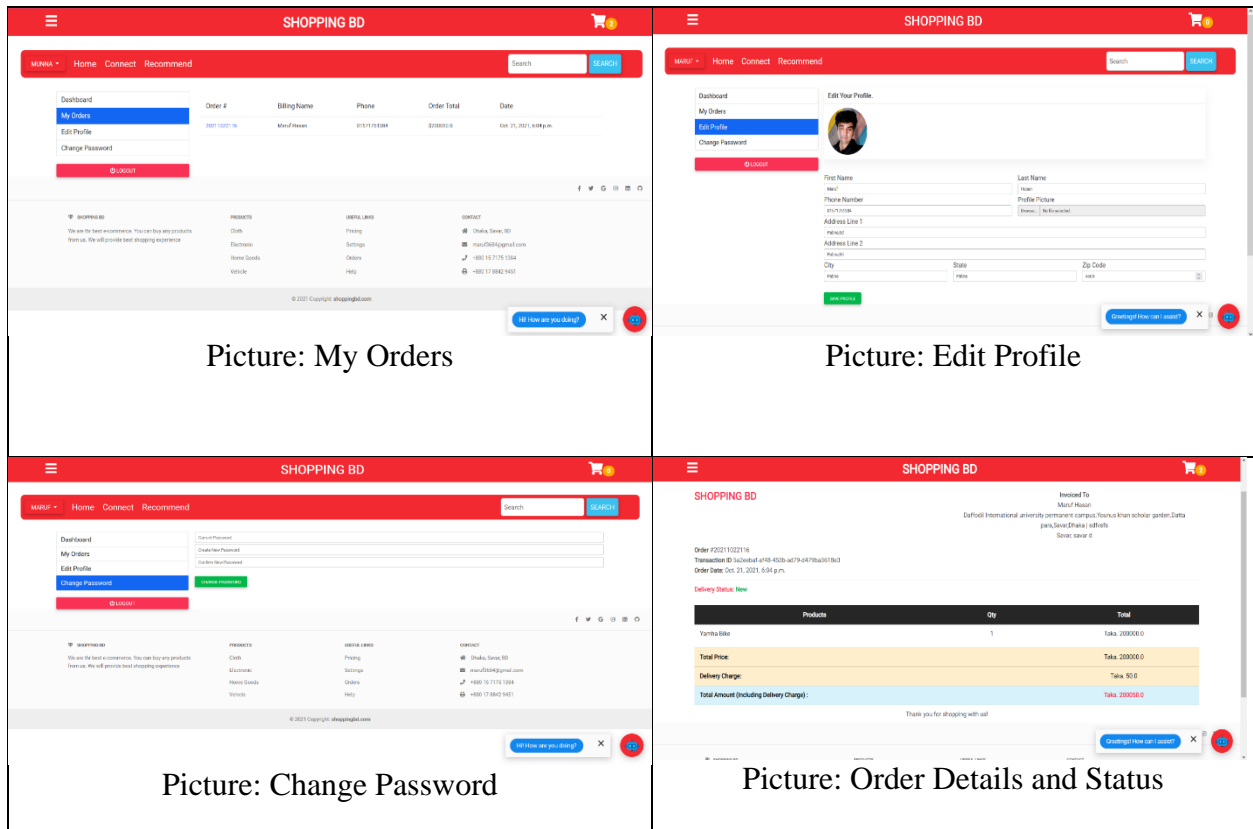


Figure 5.11: Combine picture of user profile

We also provide an update profile option to customers. From there user can update their name, email, phone number and they can also update their profile picture. In Change Password Section user can change their password for security purposes.

5.12 Admin

The admin panel is the main control panel of a website. The admin panel is not accessible to the average user. Only certain site admins can access the admin panel.

From the admin panel, the admin can create, delete, manage anything on that website. He can add a category, add products, view orders, and payment details. Admin can also give any permission to normal users, add them to a group, etc. He can also create and delete users and view their activities. The View of a category Model is shown in Figure 5.12

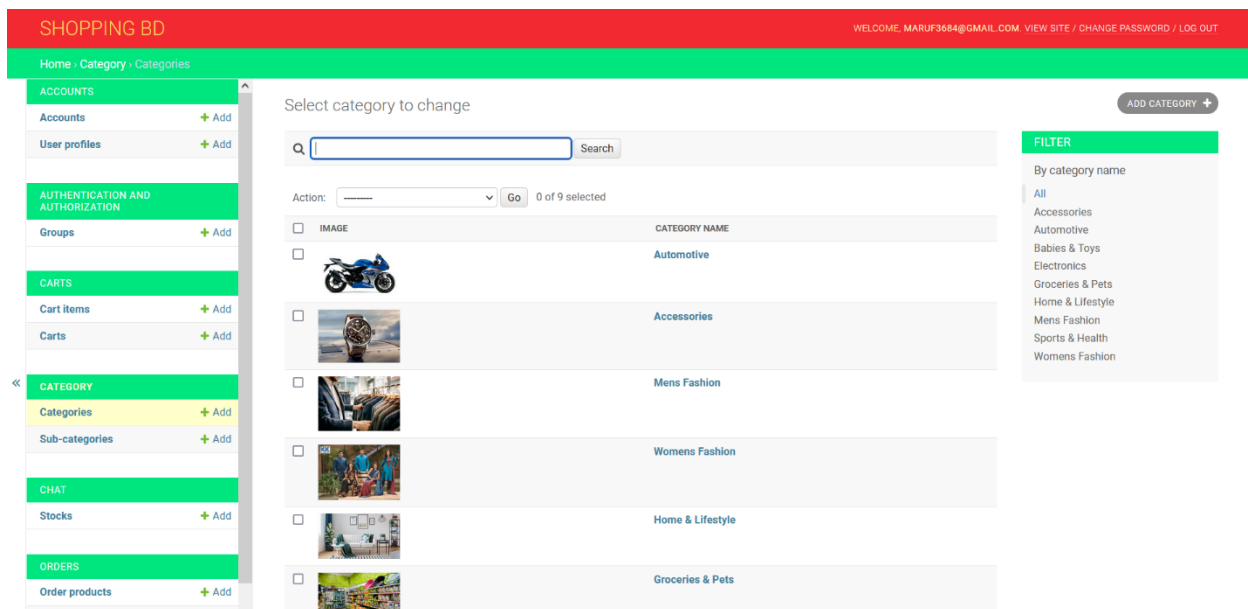


Figure 5.12: View of a category Model

From here Admin can add, search, filter, and delete the category of product. We also added filter and pagination in our admin panel for a better user experience and quickly find products, payments, orders, etc.

5.13 Details view of Admin Control

Admin has so many options to control. Some of them are given in below:

- Product Option: Admin can add, search, filter, and delete products.
- Category Option: From here admin can add and delete categories.
- User Profile Option: Admin can access user profile data and can change them.
- Accounts Option: From here Admin can manage all user account. He can give any permission to normal users, add them to a group, etc. He can also create and delete users and view their activities.
- Order Option: From here Admin can view all orders, delete orders, and can also update order status for users.
- Payment Option: From here Admin can get all payment information.
- Cart Items Options: From there Admin can watch each user's cart item.
- Stock Option: This is the model for storing all off messages of the user.

The Combine picture of admin control panel is shown in Figure 5.13

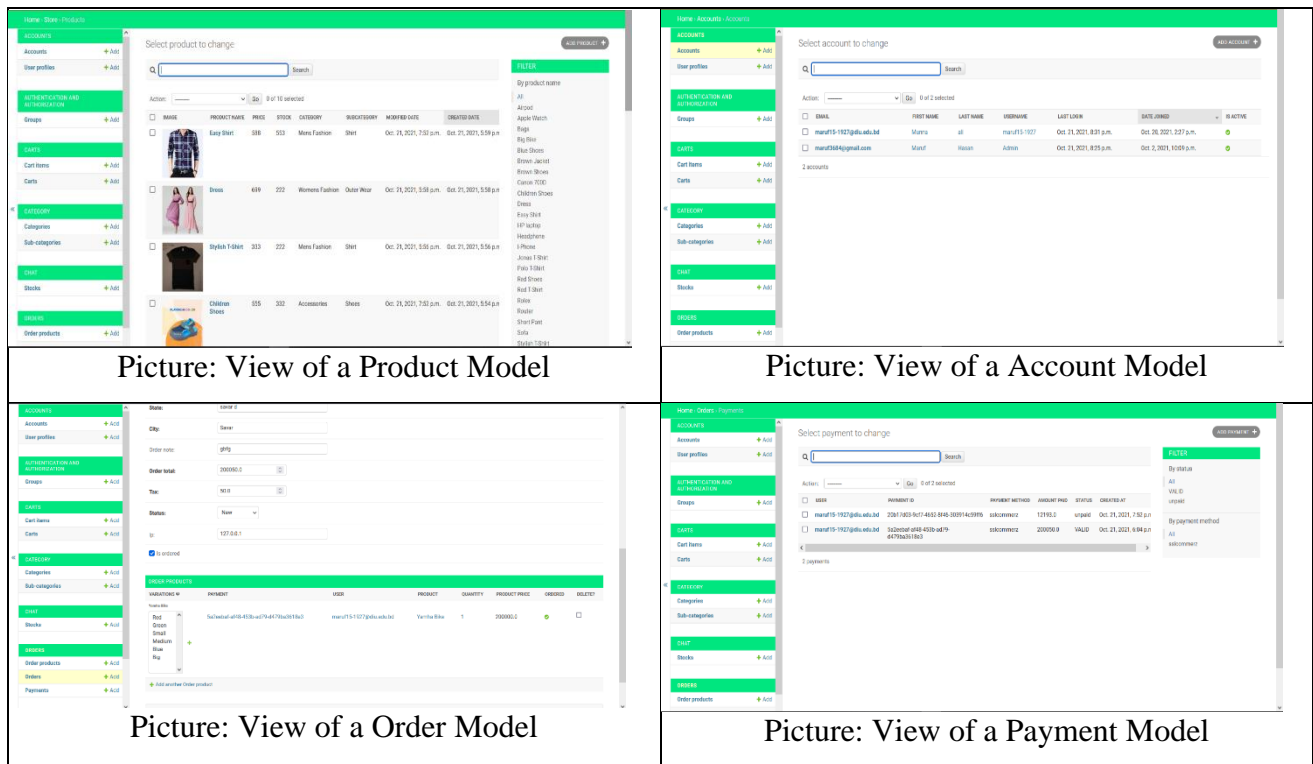


Figure 5.13: Combine picture of admin control panel

So, we can see that the admin has control over everything on that website. He can manipulate each and every piece of data via the admin panel.

5.14 Helping Bot

This is a virtual assistant. It can help customers in real-time if they don't know anything or need help about this site. For making this bot we used google dialogue flow API. This system is very intelligent. Not only it can reply to site-related questions but also it can do casual talk with users. We can train this bot by providing a question set. We can use custom machine learning models and datasets to train that bot. The Helping Bot is shown in Figure 5.14

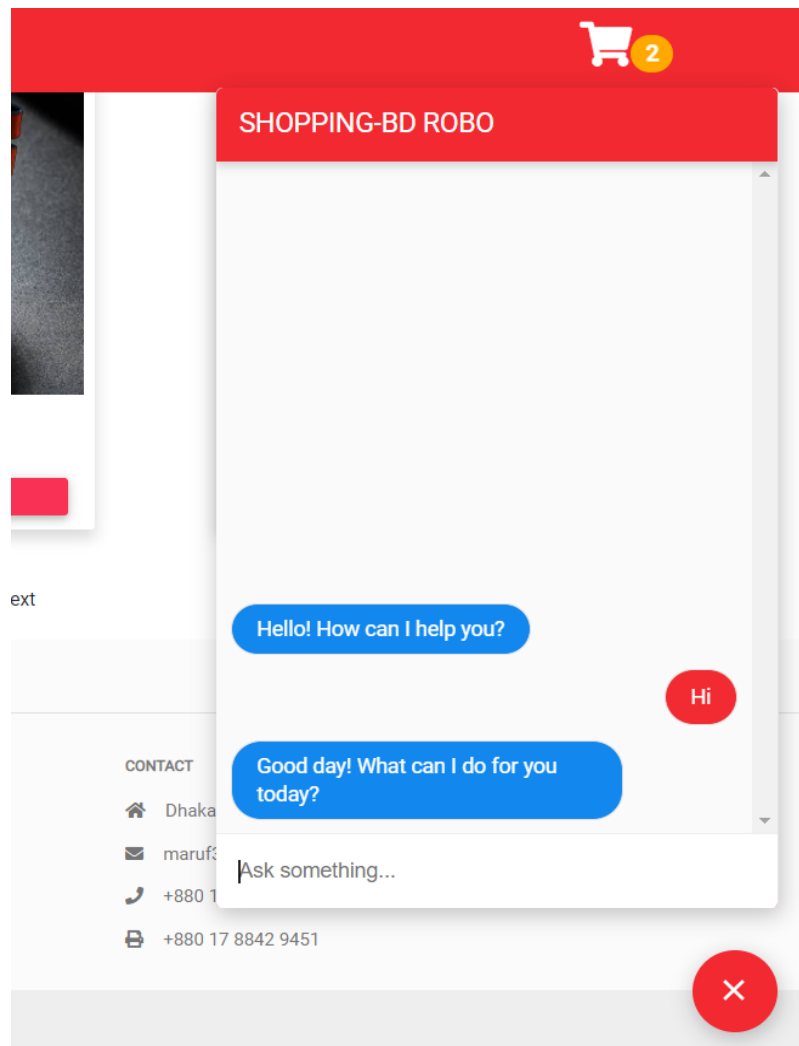


Figure 5.14: Helping Bot

Not only help the customer but also our bot is a great tool for entertaining our customers and time pass also.

5.15 Real-time chatting messenger

It is an online chatting platform from where customers can take help from the admin directly. Customers can also complain about any kind of problem to the admin in real-time. It's a real-time chatting messenger. We use the Django channel & radish library for implementing this on the server-side. For the client-side we used javascript. A message sent by that messenger can show to the admin in real-time. There is no need to reload the page. The Real-time chatting messenger of our website is shown in Figure 5.15

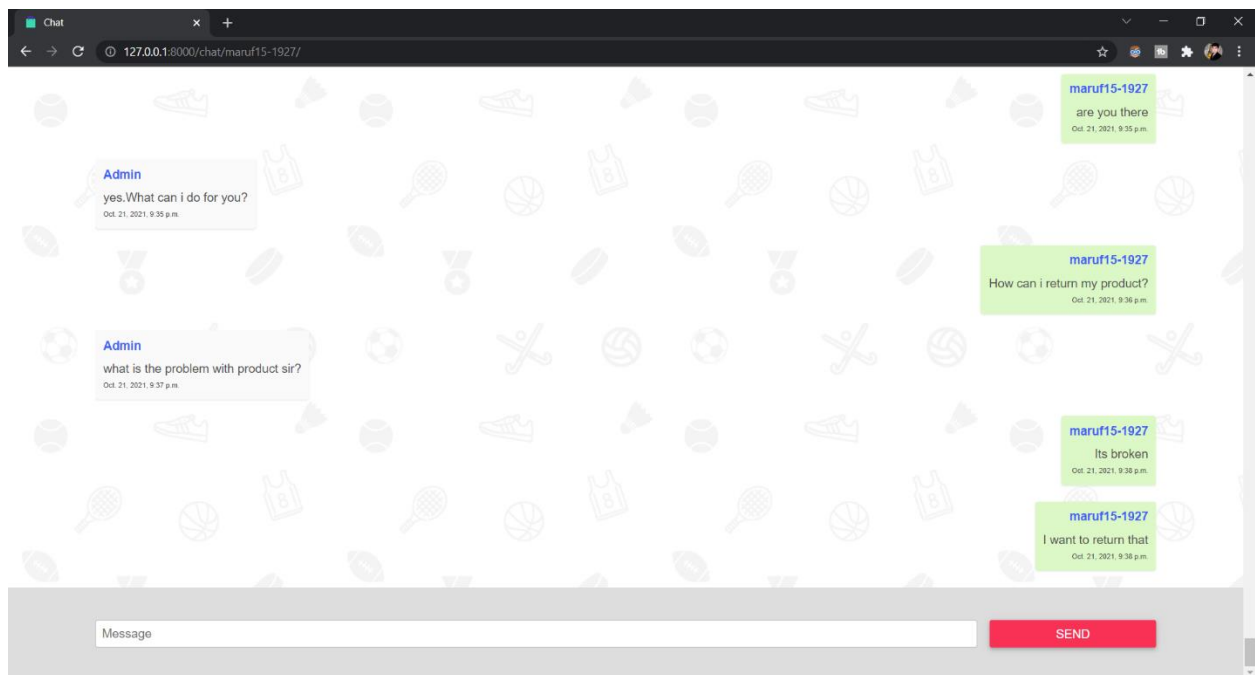


Figure 5.15: Real-time chatting messenger

Your messenger can handle millions of user at a time because we used python multithreading in that messenger. And for optimization, we used Django asynchronous view function. That makes its performance unbeatable.

CHAPTER 6

Result Discussion

6. Result

We have tested our website based on four factors, we use lighthouse app for measurement.

- Performance
- Accessibility
- Best Practices
- SEO

Here our Website Performance Score result is below in Figure 6.0

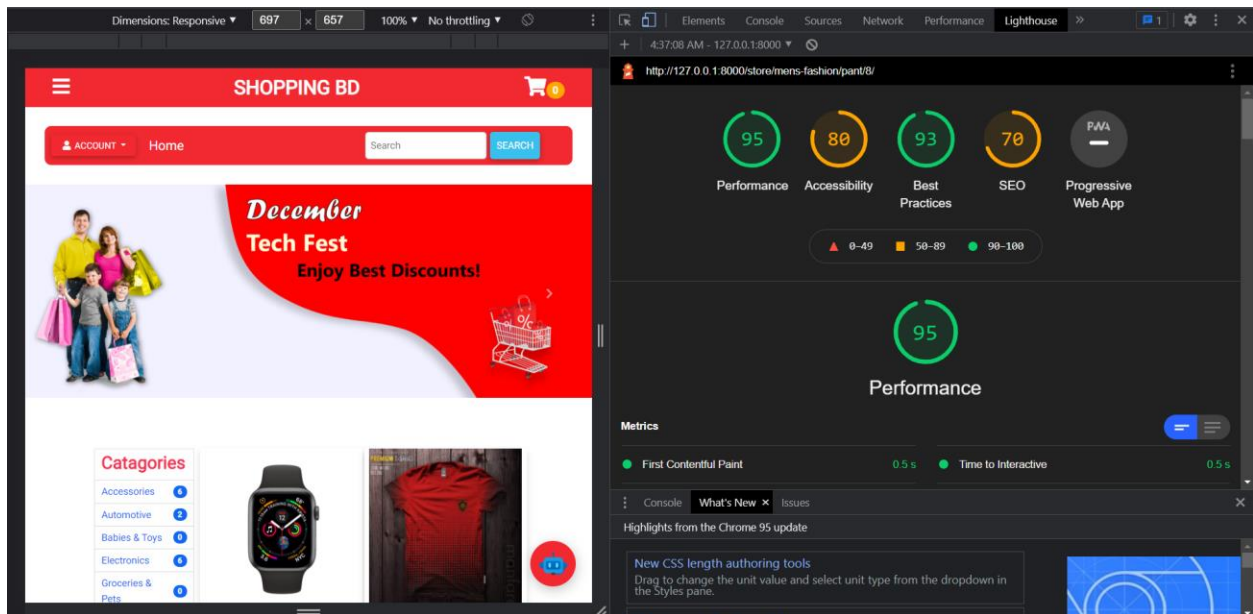


Figure 6.0: Our Website Performance Score (95%)

6.1 Performance measurement

Our website overall performance is 95% which is very high compared to other e-commerce platforms. We compared our website performance with well-known Bangladeshi e-commerce

platform Daraz and surprisingly we found that our performance is higher than Daraz and their overall performance is only 69%. The Daraz.com Performance Score is shown in Figure 6.1

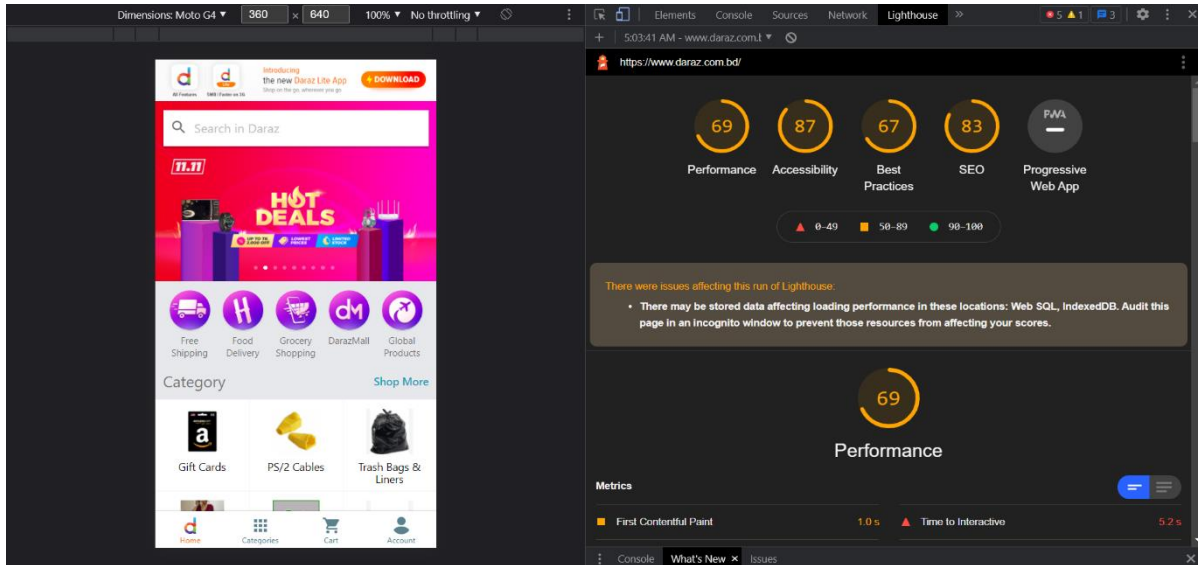


Figure 6.1: Daraz.com Performance Score (69%)

6.2 Others Factors

Due to running in localhost rather than actual server our accessibility and SEO is a little bit lower than others e-commerce which is running is the actual server but in the best practice section, we got the mind-blowing score of 93%. Here is our website overall result checking statement below in Figure 6.2

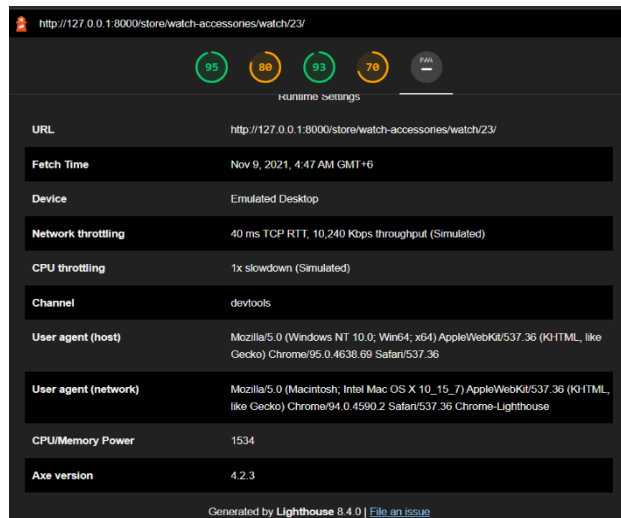


Figure 6.2: Overall result checking statement

So, we are optimistic about the results of our e-commerce platform and we hope in future it will play a significant role in the development of online shopping in Bangladesh.

CHAPTER 7

Conclusion

7. Conclusion

Since we are creating an e-commerce website, it will most likely be utilized to buy and sell goods and services over the internet. The primary goal was to create a website where users could buy any product from anywhere in Bangladesh. Aside from that, users can pay easily through sslcommerz. This will keep their transactions secure. We understand how difficult it is to come to the market from the countryside. So, our main goal is for individuals to be able to connect with the global market. Delivering the right product at the right price to those who are deprived of the amenities of the city. They will save time and effort as a result of this. In addition, we will implement a real-time chatting system so that users can easily contract with the admin also implement a chatbot for helping them to understand the functionalities of our website.

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