

CSE 299.12
(Junior Design Project)
A simple E-commerce website



Group No. 4

Project Report Prepared By:

Md. Sakib bin Swroar

1612367042

Mubassir Jahan

1811058042

Submitted to: Dr Ziaul Hossain (zho)

Date of Submission: 05.01.2022

Abstract

This is a project on a simple E-commerce website. As E-commerce is a growing concept in Bangladesh and already has so many websites, the goal of this project was to sort out the best features amongst them and make a unique E-commerce website which would be pretty simple to use. The project would help us find out what our online customers really look for. In order to keep things simple, technologies like php, mysql, javascript, CSS, Bootstrap were used. For the architecture, 3 tier architecture was used where the frontend and backend was connected using a logic tier. The main features in the website were, search functionality, product details, subcategorized products, discounted price, easy order placing, user authentication etc. There were mixed findings on the project. The website could be used by small business enthusiasts to sell their products. There were also chances to develop the project.

Introduction

E Commerce is a growing concept in Bangladesh. In Bangladesh ecommerce industry is rapidly growing and this industry has seen 200% growth since last 2 years specially During the pandemic. E-commerce makes shopping easy for us. The aim of this project was to find out the motivating factors behind the e-commerce purchase intention of Bangladeshi online customers. The website was built upon a user-friendly interface for a good e shopping experience. Today, e-commerce is a very popular term because we have companies like daraz, pathao, foodpanda, chaldal etc which are fulfilling our needs in everyday life. These websites are full of features and some users may find it difficult to use. So we have kept our website simple and easy to use and that was one of our main goals throughout the project.

Background:

The project was supposed to be built using python language but as all the members were not comfortable with it we switched to php. Research had been conducted on php and got the idea that it is easily implementable for our project topic as most basic websites are made with php. Bootstrap framework was used as most of the modern e-commerce websites are responsive and rich with modern components. Javascript was also used to add functionality to the website. CSS was used to give the website a good shape and look. Goal of the project was to make a simple, lightweight web application for shopping and these technologies were the best options for making things easy. Xampp server had been chosen for our database application as it comes with mysql and phpmyadmin which would be suitable for our project. Bit of jquery was used too. In most of the cases, cdn linked version files were used in the code.

Meetings had been held in the beginning week of the project initiation, to research for the ideas for the project features. Various e-commerce websites were looked upon and tried to find out their pros and cons. Came up with the ideas which will make our e-commerce website more unique. After accumulating the ideas, the goal of the project was set.

Methodology/Procedure:

3-tier Architecture Diagram:

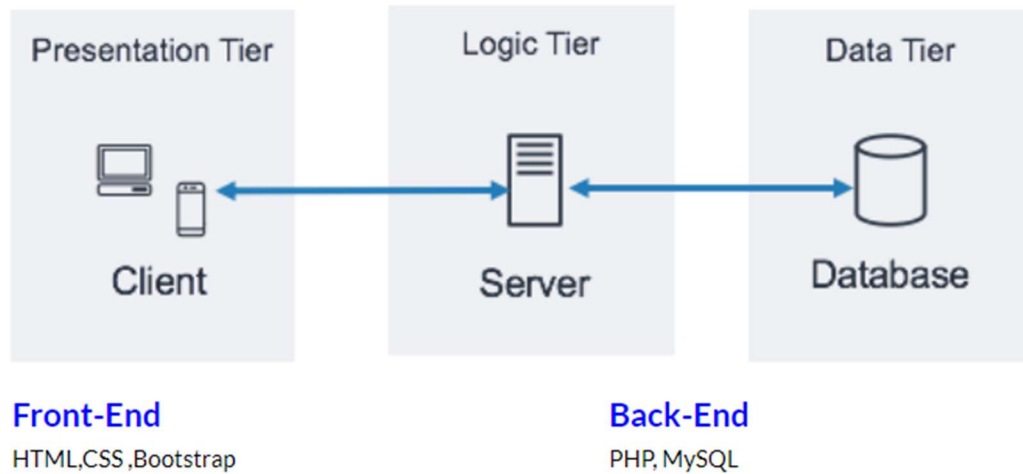


Figure: A

For the Front-end side: HTML, CSS & Bootstrap was used. Also, some JavaScript were used in certain cases. **[Figure A]**

For the Back-End side: Mainly used PHP, MySQL to control, connect and keep running the system in background. **[Figure A]**

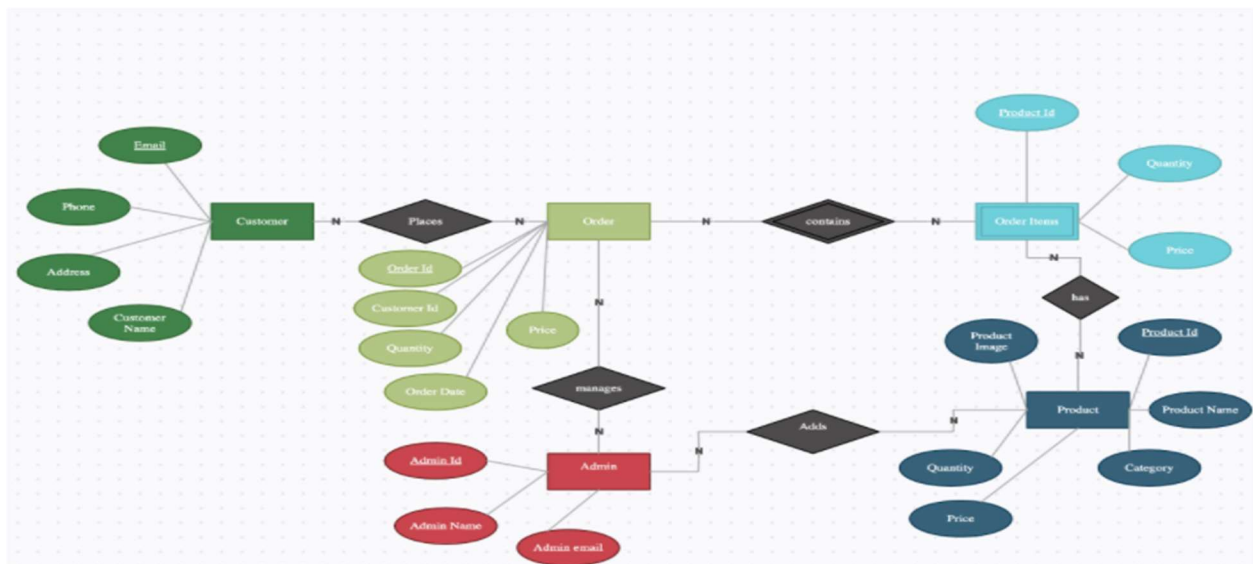


Figure: B

ER Diagram was drawn with all the necessary Titles and dependencies. **[Figure B]**

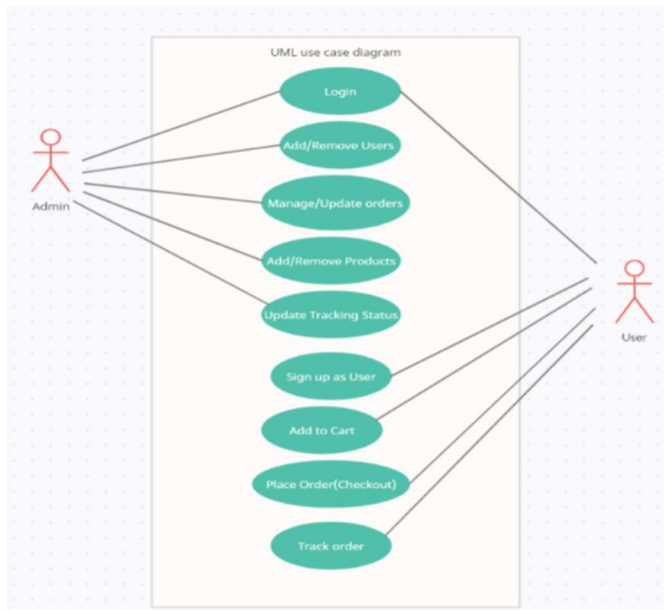


Figure: C

UML use case diagram was drawn to highlight the users and their roles. **[Figure C]**

In this project, in terms of 3 different diagram was used to identifying, analyzing and planning for the project.

After completing these preparations, the development work was started from the next day after the meeting.

Results:

When the program was executed, this output was shown up as a FrontPage **[Figure 1]**:

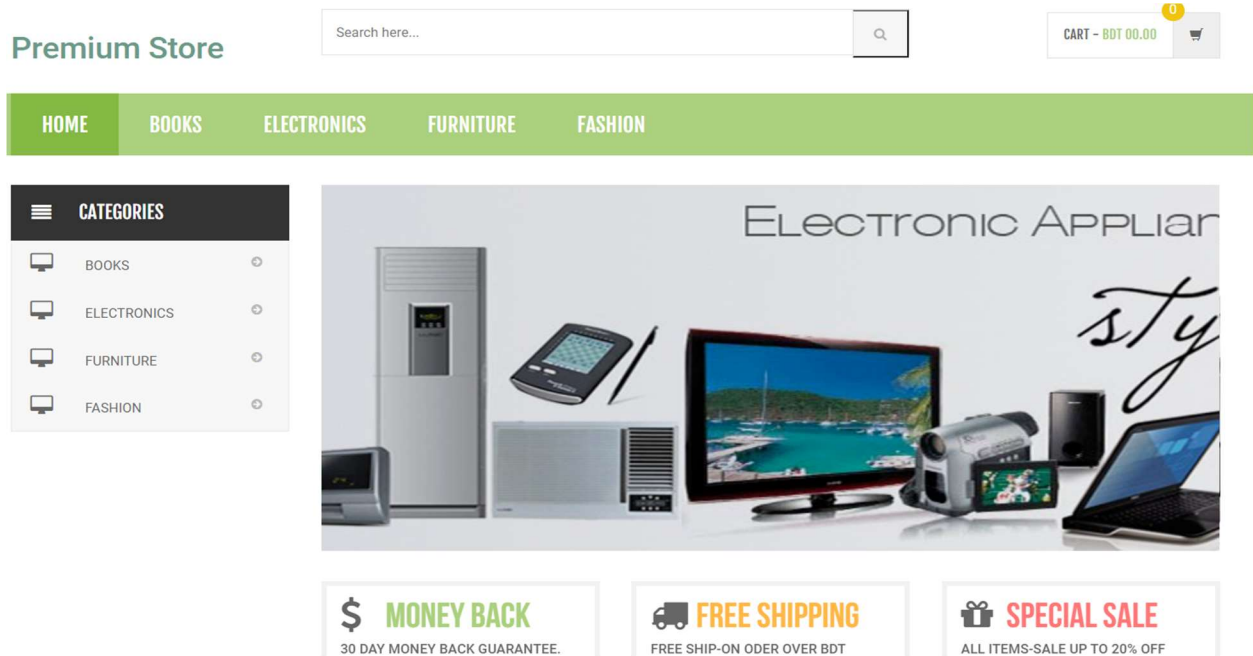


Figure:1

Search Functionality: If any product was searched **[Figure 2]** inside the search bar then the results were displayed (including the normal price and the discounted price) as below.

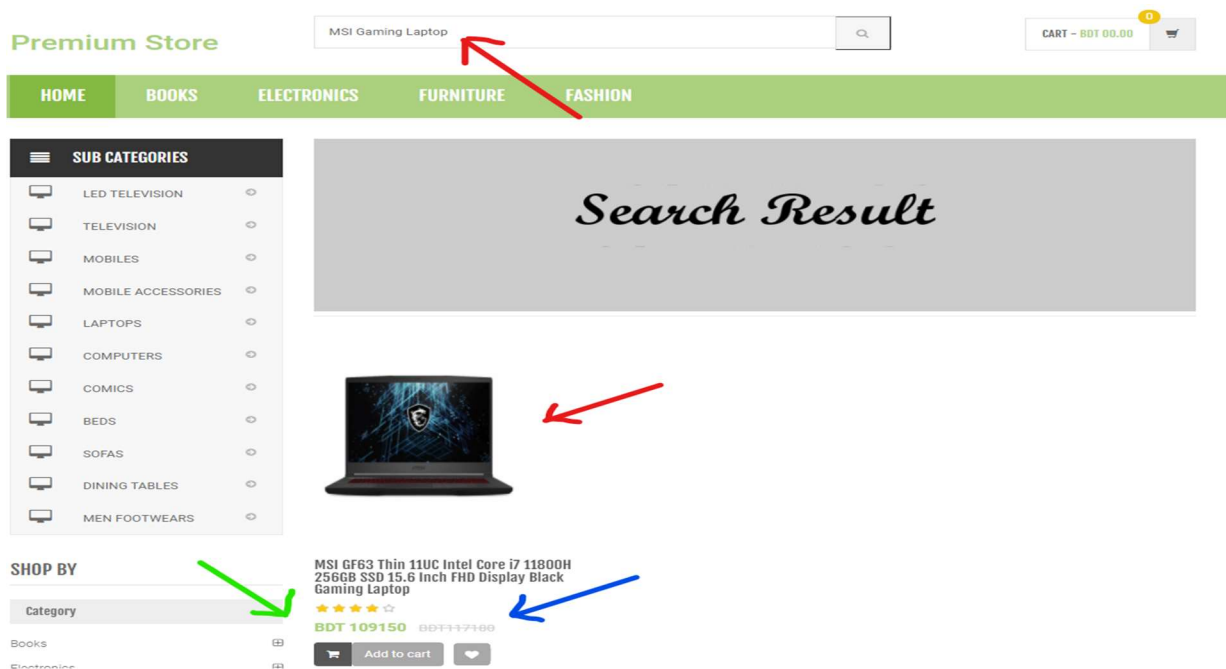


Figure:2

Arrow marked as ->>>>>[*Search Query*, *Previous Price*, *Discounted Price*]

Product Details: By clicking on the Title of the product the page redirected to the product details page where specifications and other information showed up there. [Figure 3].

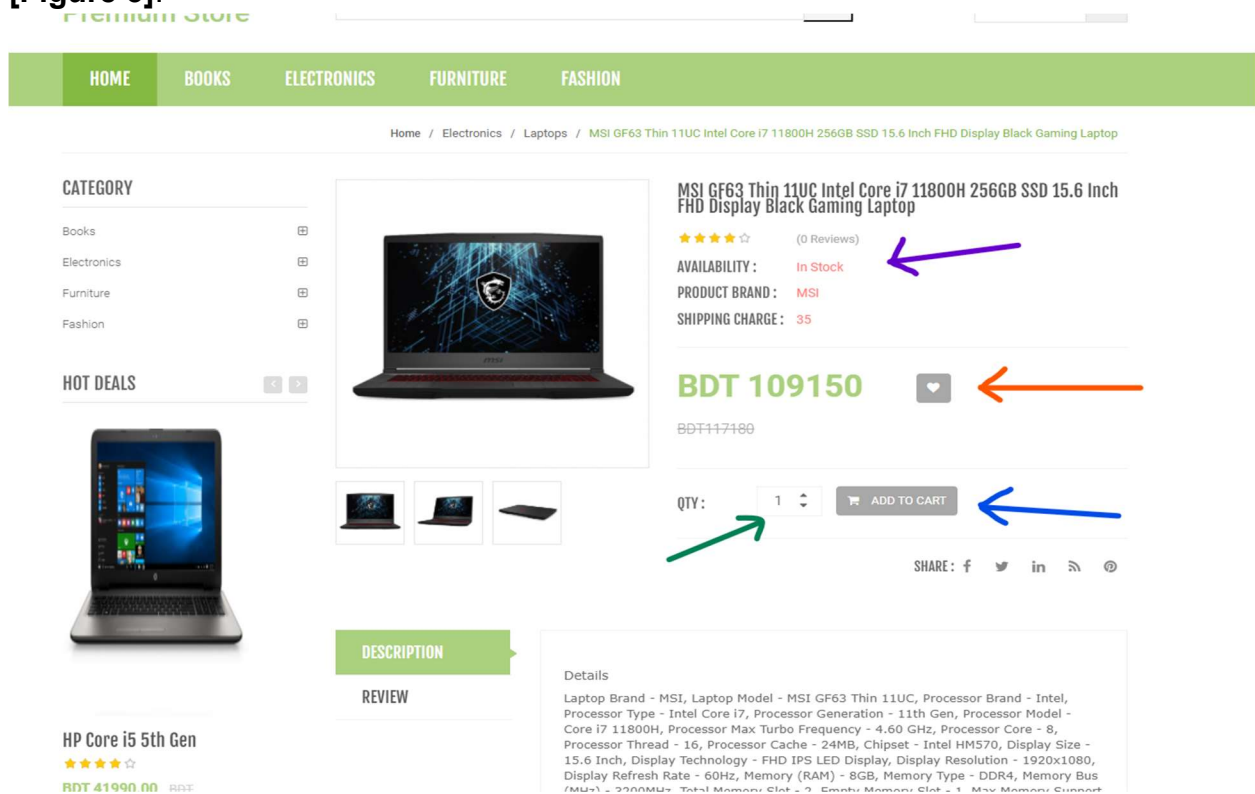


Figure:3

Arrow marked as ->>>>> [Add to cart, Select Quantity, Product Status (In stock or not, Brand Name, Shipping Charge), Add to wishlists]

Placing order: By clicking add to cart it showed up a pop up confirmation [Figure 4]

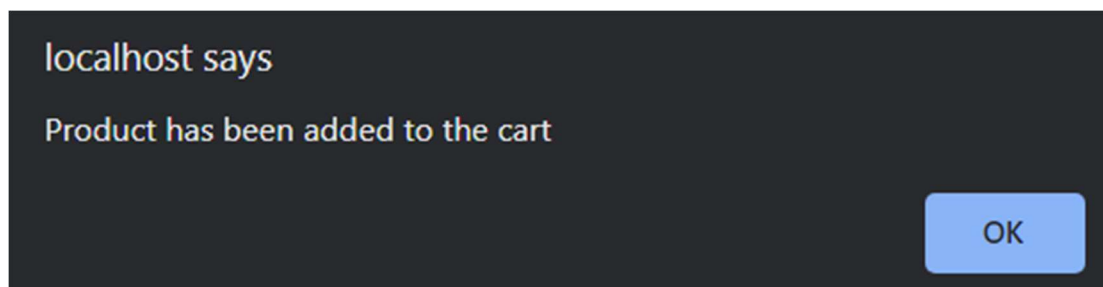


Figure :4

Now the cart details page appeared [Figure 5].

Premium Store

Search here...

CART - BDT 109185.00

HOME BOOKS ELECTRONICS FURNITURE FASHION

Home / Shopping Cart

Remove	Image	Product Name	Quantity	Price Per unit	Shipping Charge	Grandtotal
<input type="checkbox"/>		MSI GF63 THIN 11UC INTEL CORE I7 11800H 256GB SSD 15.6 INCH FHD DISPLAY BLACK GAMING LAPTOP (0 Reviews)	1	BDT 109150.00	BDT 35.00	109185.00

CONTINUE SHOPPING

UPDATE SHOPPING CART

SHIPPING ADDRESS

BILLING ADDRESS

TOTAL **GRAND**
109185.00

PROCEED TO CHECKOUT

Figure:5

Arrow marked as ->>>>>[Total Price, Final Checkout]


User Authentication: By clicking on the Proceed to checkout button[in Figure 5]. The site redirected to the authentication page[**Figure 6**] which asked the user to create a shopping account for final checkout or sign in to an exciting shopping account.

The screenshot shows the 'Authentication' page of a website. At the top is a green navigation bar with links: HOME, BOOKS, ELECTRONICS, FURNITURE, and FASHION. Below this is a breadcrumb trail: Home / Authentication. The page is divided into two main sections: 'SIGN IN' on the left and 'CREATE A NEW ACCOUNT' on the right. The 'SIGN IN' section includes a welcome message, fields for 'Email Address *' and 'Password *', a 'LOGIN' button, and a 'Sign in with google' link. A blue arrow points from the top of the 'SIGN IN' section down to the 'LOGIN' button. The 'CREATE A NEW ACCOUNT' section includes a message to 'Create your own Shopping account.', fields for 'Full Name *', 'Email Address *', 'Contact No. *', 'Password. *', and 'Confirm Password. *', and a 'SIGN UP' button. A red arrow points from the top of the 'CREATE A NEW ACCOUNT' section down to the 'SIGN UP' button. A green link 'Forgot your Password?' is located between the two sections.

Figure: 6

Arrow marked as ->>>>[Authentication Sign in, Sign in with Google Account, Authentication Sign up]

After Authentication it asked to fill up the shipping & billing address for final checkout [in **Figure 7**]. By clicking Proceed to checkout a pop-up window appeared and showed order is placed.

Remove	Image	Product Name	Quantity	Price Per unit	Shipping Charge	Grandtotal
<input type="checkbox"/>		MSI GF63 THIN 11UC INTEL CORE I7 11800H 256GB SSD 15.6 INCH FHD DISPLAY BLACK GAMING LAPTOP ★★★★☆ (0 Reviews)	1	BDT 109150.00	BDT 35.00	109185.00
CONTINUE SHOPPING		UPDATE SHOPPING CART				

SHIPPING ADDRESS

Billing Address*

Bashundhara R/A, Dhaka

Billing State *

Dhaka

Billing City *

Dhaka

Billing Zipcode *

1200

BILLING ADDRESS

Shipping Address*

Bashundhara R/A, Dhaka

Shipping State *

Dhaka

Shipping City *

Dhaka

Shipping Zipcode *

1200

TOTAL **GRAND**


109185.00

PROCEED TO CHECKOUT

Figure: 7

Arrow marked as ->>>>>[Shipping & Billing Address box, Proceed to checkout button for final confirmation]



Admin Panel: When Admin logged into the system the dashboard page was appeared as below **[Figure 8]**

Premium Store | Admin Pannel (You're logged in as Admin) Admin 

- Order Management
- Manage users
- Create Category
- Sub Category
- Insert Product
- Manage Products
- User Login Log
- Logout

Pending Orders

Show 10 entries Search:

#	Name	Email /Contact no	Shipping Address	Product	Qty	Amount	Order Date	Action
1	hg	hgfhgf@gmass.com/1121312312	,-0	Thea Stilton and the Tropical Treasure	2	510	2021-12-27 20:51:43	
2	User1	user1@outlook.com/17	,-	Apple iPhone 6 (Silver, 16 GB)	1	36990	2021-12-09 20:04:05	

Showing 1 to 2 of 2 entries < >

© Developed and Maintained by Mubassir Jahan

Figure: 8



Arrow marked as ->>>>>[Insert and Manage Products, Total Order Lists]

Update Order Status: By clicking the action the admin was able to change the product delivery status. **[Figure 9] & [Figure 10]**

▼

entries

Search:

	Shipping Address	Product	Qty	Amount	Order Date	Action
n/1121312312	,-0	Thea Stilton and the Tropical Treasure	2	510	2021-12-27 20:51:43	
m/17	,-	Apple iPhone 6 (Silver, 16 GB)	1	36990	2021-12-09 20:04:05	

< >

Figure:9

Arrow marked as ->>>>>[Action for updating order status]

Update Order !

order Id: 7
At Date: 2021-12-09 20:06:12
Status: in Process
Remark: Preparing order

Status:

Remark:

Figure :10

Arrow marked as ->>>>>[Remark for add Additional Details, Update Status, Update]

Order Tracking from User End: When a user was logged into the system and clicked Track Order then it asked the user to enter order ID and email. Upon entering info a pop-up window appeared with updated order status[Figure 11] & [Figure 12]

Welcome -User1 | My Account | Wishlist | My Cart | Logout

Search here...

CART - BDT 00.00

HOME | BOOKS | ELECTRONICS | FURNITURE | FASHION

Home / Track your orders

TRACK YOUR ORDER

Please enter your Order ID in the box below and press Enter. This was given to you on your receipt and in the confirmation email you should have received.

Order ID

7

Registered Email

user1@outlook.com

TRACK

Figure:11

Order Tracking Details !

order Id:	7
At Date:	2021-12-09 20:06:12
Status:	in Process
Remark:	Product is ready to ship

Figure :12

This is how the entire operation was performed successfully.

Discussion: First at the beginning when we've started developing the project by using python (django framework) & postgresql database, we've faced some problems e.g. database migrations and connecting with other apps. Another thing we've noticed is debugging problems. Yes, it is true that Django is a high-level powerful tool to do and manage all kinds of stuff at the same time but when it comes to debugging it may sometimes be extremely painful and time consuming. And that exact situation was facing one of our group members. For that reason, to save time and perform the whole project workflow smoothly, we've changed the plan and decided to develop our project with PHP, MySql for backend(database) and bootstrap, CSS, JavaScript for frontend. After that everything worked well and we completed the project without any problems.

Conclusion: We've learned a lot of things while doing research for this project. While developing we've faced some errors which helped us to find out the possible solution and getting used to new methods and tools.

Strengths and weaknesses of this project: There is only one major weakness of this project and that is this website has only 2 users. One is an admin and the other is a customer. Where admin has all controls and customer has only the ability to buy and product. Another minor flaw is the product user review system . We've tried to build this part but somehow weren't able to fix this issue due to time constraints.

Possible applications of study (how it can be used): This website can be used for small business enthusiasts who want to sell their products online without any third-party e-commerce vendors. In this case, they don't need to pay any extra money to sell their goods whereas a third-party e-commerce platform charges for every item sales.

Recommendations:

What would we do differently: In this project, our plan was to build total 3 users:

- 1.Admin
- 2.Seller User
3. Normal User

Admin user was supposed to control the entire system. Where the seller user was supposed to log in, add a product to sell this platform. And lastly a normal user role was about only buying products.

Changes we recommended: To perform a better e-commerce system we would recommend adding a new user as a seller role who can register himself as a product seller, post products and directly connect with customers by using a live chat.

References:

1. <https://www.apachefriends.org> xampp,phpmyadmin, mysql
2. <https://getbootstrap.com/>
3. <https://www.php.net/>
4. <https://jquery.com/>