

Full Stack Development (ESE3014)

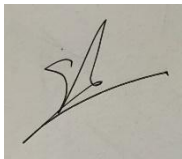

Project Report

Declaration of Originality

I am the originator of this work and I have appropriately acknowledged all other original sources used in this work.

I understand that Plagiarism is the act of taking and using the whole or any part of another person's work and presenting it as my own without proper acknowledgement.

I understand that Plagiarism is an academic offence and if I am found to have committed or abetted the offence of plagiarism in relation to this submitted work, disciplinary action will be enforced.

Submitted By:		
Matric Number	Student Name:	Signature
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2004913F	Alson Ng	

Class: PE05

AY2021/2022 OCT SEMESTER

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1. Project Brief

1.1. Introduction

Business/Company: Metata Enterprise Pte Ltd

Project Title: Develop an e-commerce platform to provide a cheap, convenient, and safe environment to purchase their desired items.

Project Group: PE05 Group 2

Group Leader: Alson Ng

All Group Member(s): Alson Ng, Clive Tan

1.2. Overview, Goals and Milestones

Matata Enterprise Pte Ltd is an online shopping platform that allows customers to purchase their desired goods with a low price guarantee. Due to the recent COVID-19 pandemic, it is inconvenient for shoppers to go to the market, shopping mall, and shophouses to purchase their items or daily needs like clothing, electronics, and home appliances, as they are afraid of catching the virus.

Project Goals:	
<ul style="list-style-type: none">• Provide a convenient and safe platform for our customers to purchase their goods.• Low price guarantee compared to other online shopping platforms• We guarantee a good and satisfactory service for our customer	
Personal Goals:	Group Member:
I aim to complete my project by 24/ 01/ 2022. I shall take initiative to find out the information needed. I shall check the project rubric to ensure all items are done before submission.	Clive Tan
I aim to complete my project by 24/ 01/ 2022. I shall take initiative to find out the information needed. I shall check the project rubric to ensure all items are done before submission.	Alson Ng

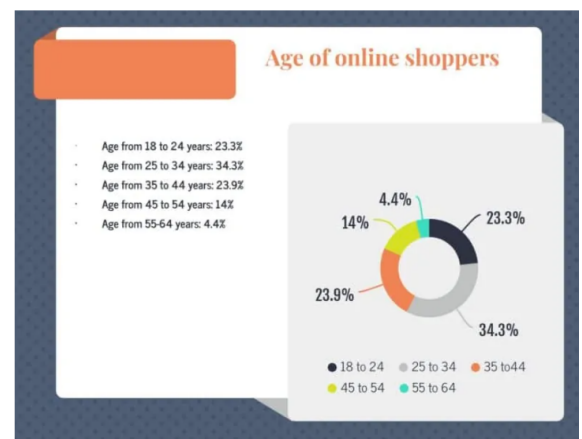
Milestones / Tasks	Deadline	Completion Date	Status (early, on-time, delayed)
Microsoft SQL Server Express	26th Oct 2021	26th Oct 2021	On-time
Microsoft Visual Studio Community Edition	21st Nov 2021	19 Nov 2021	Early
Draft initial project brief	14th Nov 2021	14th Nov 2021	On-time
Design Entity Relationship Diagram	10th Dec 2021	18th Jan 2022	Delayed
Set up GitHub for version control	10th Dec 2021	20th Nov 2021	On-time
Build a basic application <ul style="list-style-type: none"> User Login Landing Page Page Navigation 	29th Nov 2021	27th Nov 2021	Delayed
Storyboard	28th Nov 2021	27th Nov 2021	Delayed
CRUD	2nd Jan 2022	1st Jan 2022	Delayed

1.3. Target Audience

Metata e-commerce based in Singapore aims to focus on the age group of 18 to 44 or any institutions that are likely to have similar purchasing interests and are eager to purchase our company's products and services.

Our company is still ongoing, and our current main priority's product is clothing. Customers who are interested in clothes, comfortable with using card payments and do not like to shop in the shopping mall are welcome to our platform.

At the moment our Metata platform will be on the internet via desktop and in the future, we will expand to the use of the mobile app.





1.4. Competitors Research

A. Amazon.com

Amazon headquarters are in Seattle, Washington. Amazon.com is a vast Internet-based enterprise that sells books, music, movies, housewares, electronics, toys, and many other goods, either directly or as the middleman between other retailers and Amazon.com's millions of customers.

Advantages:

- Over 240 million Amazon customers worldwide [2]
- Well established Amazon partner program for affiliates [2]
- It generates immediate trust [3]

Disadvantages:

- (\$15) Expensive shipping fee compare to other e-commerce in Singapore [1]
- Bad customer service support[4]
Amazon Sales Charge - depending on the product category between 7% and 20%[2]

B. (Alibaba Group) TaoBao PTE. LTD

TaoBao is owned by Alibaba Group which is an online shopping platform as they are more focused on targeting the age group from 15 to 29.[6] Taobao Mall which offers brands from names like Adidas, Fast Retailing, and Lenovo Group that run a series of commercials in Mandarin and Cantonese under the Strapline “no one goes out does not mean no one is shopping”. [6] It has grown from 2% to around 7% of China’s total retail

market over the coming three years.[6] Furthermore, shoppers can have a satisfying shopping experience of choosing from over 30 000 major brands of genuine and high-quality products in the comfort of their home.[6]

However, there are a few issues found in TaoBao:

- Languages which shoppers who do not speak or understand Mandarin and Cantonese [9]
- Logistics as there is no information and update during the time the TaoBao sellers deliver their goods to the warehouse for consolidated shipment from TaoBao.com.[7]
- Scamming issues as such selling counterfeit products such as watches, handbags, and other goods.[8]
- Purchasing issues [9]
- Parcel tracking issues [9]

1.5. Design Requirements and Specifications

- Create individual entities: Brand, ShopOrder, Product CRUD for each classes
- The user will able to register, login and logout based on our Metata website
- User can place an order for the item that want and make payment
- User have to login to see page example Brand page.

1.6. Project Schedule

Task ID	Task Name	Completed date (MM/DD/YY YY)	Deadline (MM/DD/YY YY)	Week 1	Week 6	Week 8	Week 10	Week 11	Week 12
1	Microsoft SQL Server Express	8/26/2021	8/26/2021	Checked					
2	Microsoft Visual Studio Community Edition	11/19/2021	11/21/2021		Check				
3	Draft initial project brief	11/14/2021	11/14/2021		Check				
4	Design ER diagram	1/18/2022	12/10/2021			Check			
5	Set up GitHub for Version control	11/20/2021	11/20/2021				Check		
6	Build a basic application	11/27/2021	11/29/2021					Check	
7	Storyboard	11/27/2021	11/28/2021					Check	
8	CRUD	1/2/2022	2/2/2022						Check

1.7. Project Deliverables

Task/Features	Student A	Student B
ER Diagram (ShopOrder/Payment/User/Delivery)	-	Clive
ER Diagram (Staff/OrderItem/Product/Brand/Category)	Alson	-
Site Map	-	Clive
Storyboard	Alson	-
Report Introduction	-	Clive
Report Target Audience	Alson	-
Report Competitors Research (Amazon)	Alson	-
Report Competitors Research (Tabao)	-	Clive
Report Design requirements and specifications	Alson	-
Project Schedule	-	
Visual Studio (ShopOrder/Payment/User/Delivery)	-	Clive
Visual Studio (Staff/OrderItem/Product/Brand/Category)	Alson	-

1.8. Storyboard

In this section, you are encouraged to use a wireframe to start designing how the different web pages in your website should like it?

Log in

Use a local account to log in.

Email
user1@localhost.com

Password

☐ Remember me?

Log in

[Forgot your password?](#)

[Register as a new user](#)

[Resend email confirmation](#)

Use another service to log in.

There are no external authentication services configured. See [this article](#) for details on setting up this ASP.NET application to support logging in via external services.

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

Hello, world!

Welcome to your new app.

How is Blazor working for you? Please take our [brief survey](#) and tell us what you think.

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

Brand

Create New Brand

Brand ID	Brand Name
----------	------------

OnlineShopping

localhost:44384/categories

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

Category

Create New Category

Category ID	Category Name	Description
-------------	---------------	-------------

OnlineShopping

localhost:44384/orderitems

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

OrderItem

Create New OrderItem

OrderItem ID	Quantity	Product ID	Order ID
--------------	----------	------------	----------

OnlineShopping

localhost:44384/customers

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

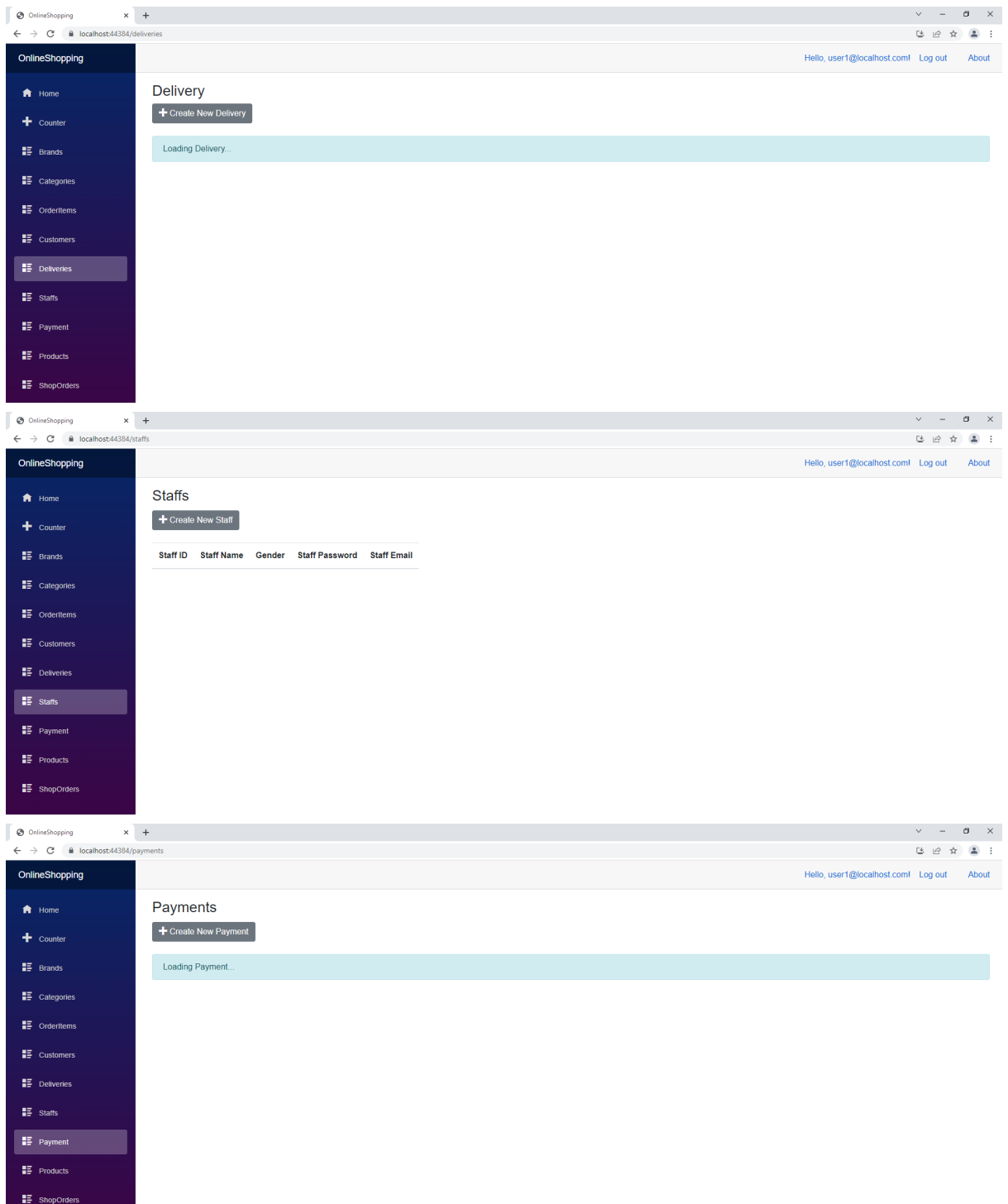
Products

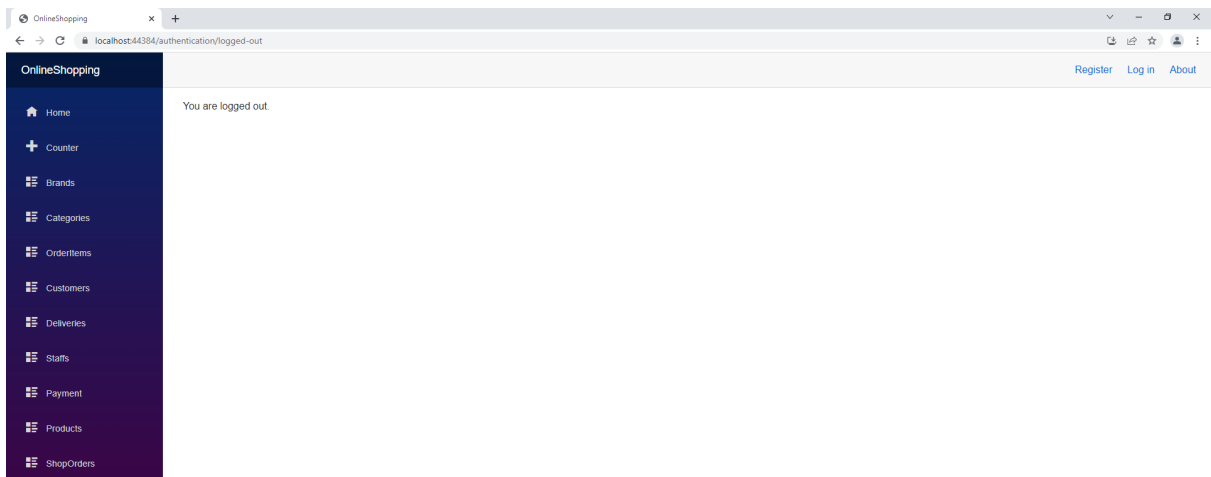
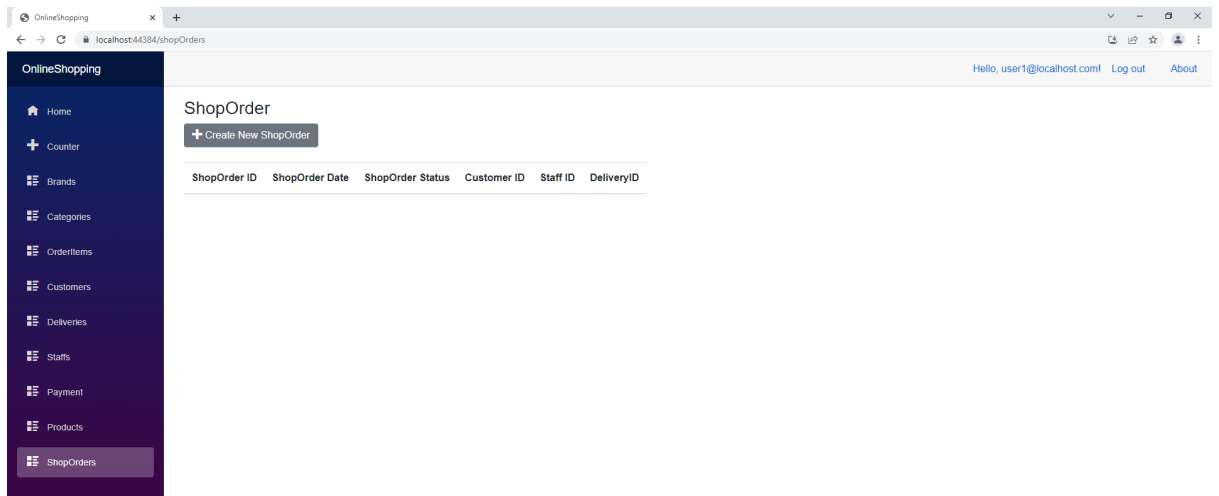
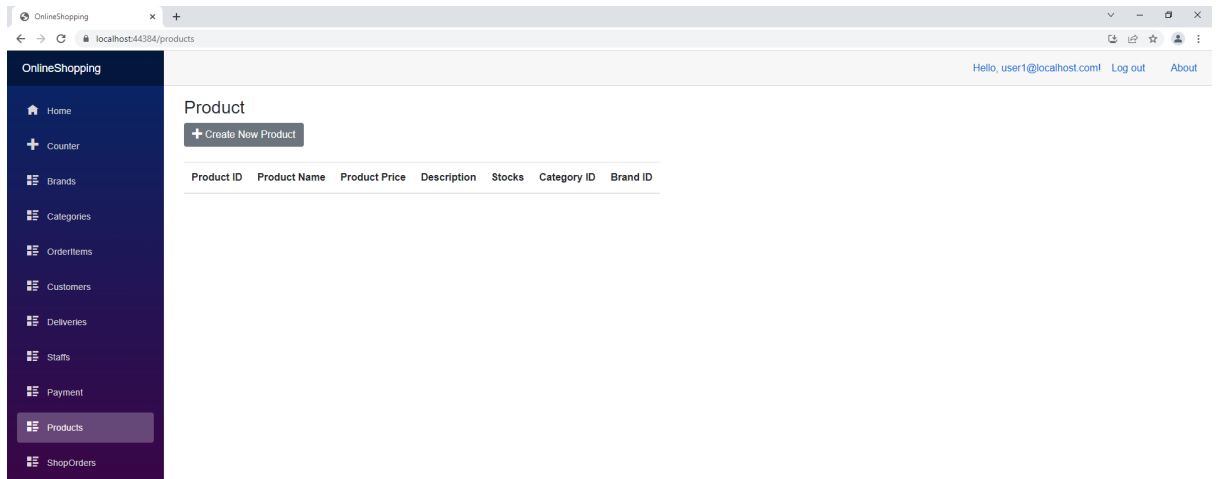
ShopOrders

Customer

Create New Customer

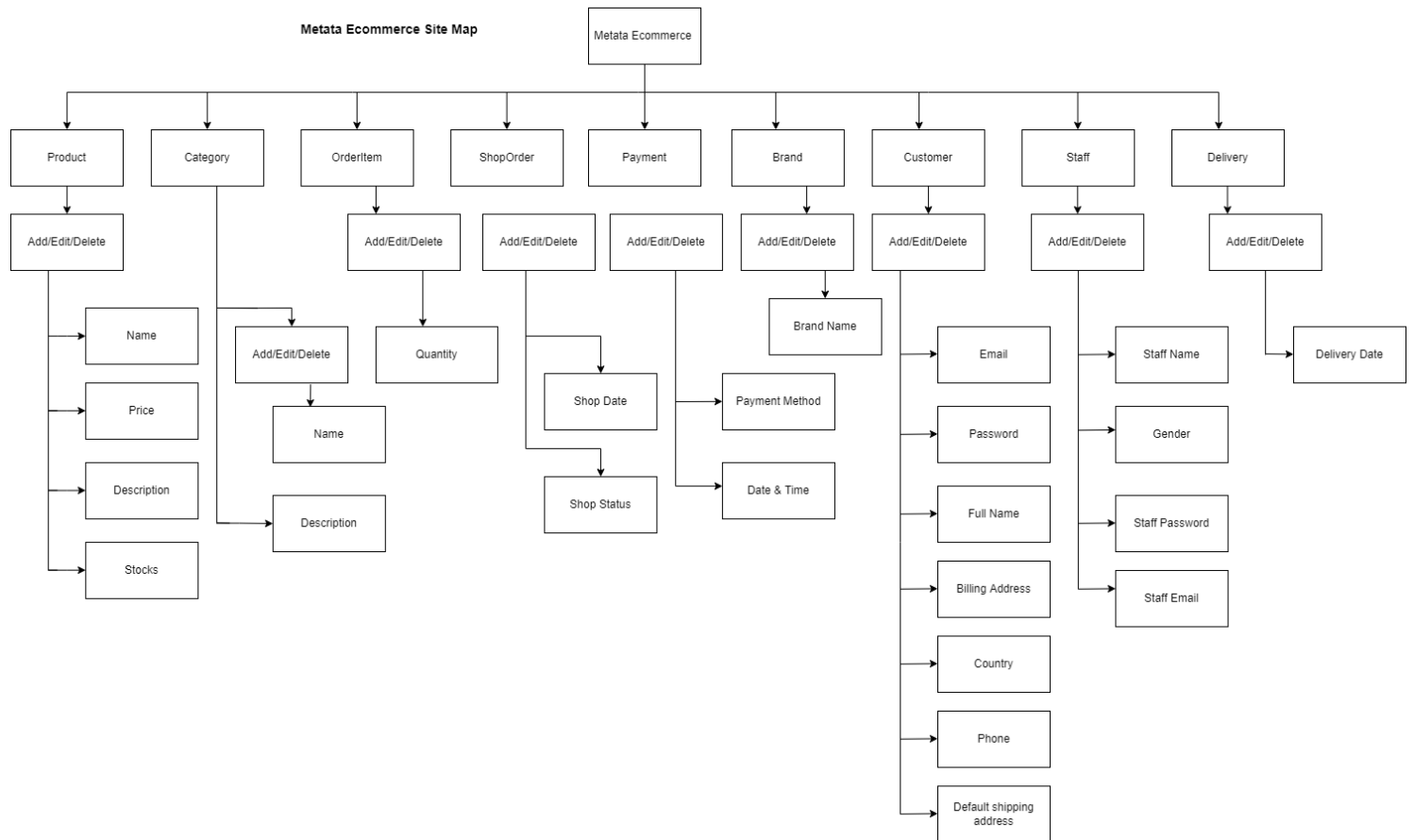
Customer ID	Email	Password	Full Name	Billing address	Country	Phone	Default shipping address
-------------	-------	----------	-----------	-----------------	---------	-------	--------------------------



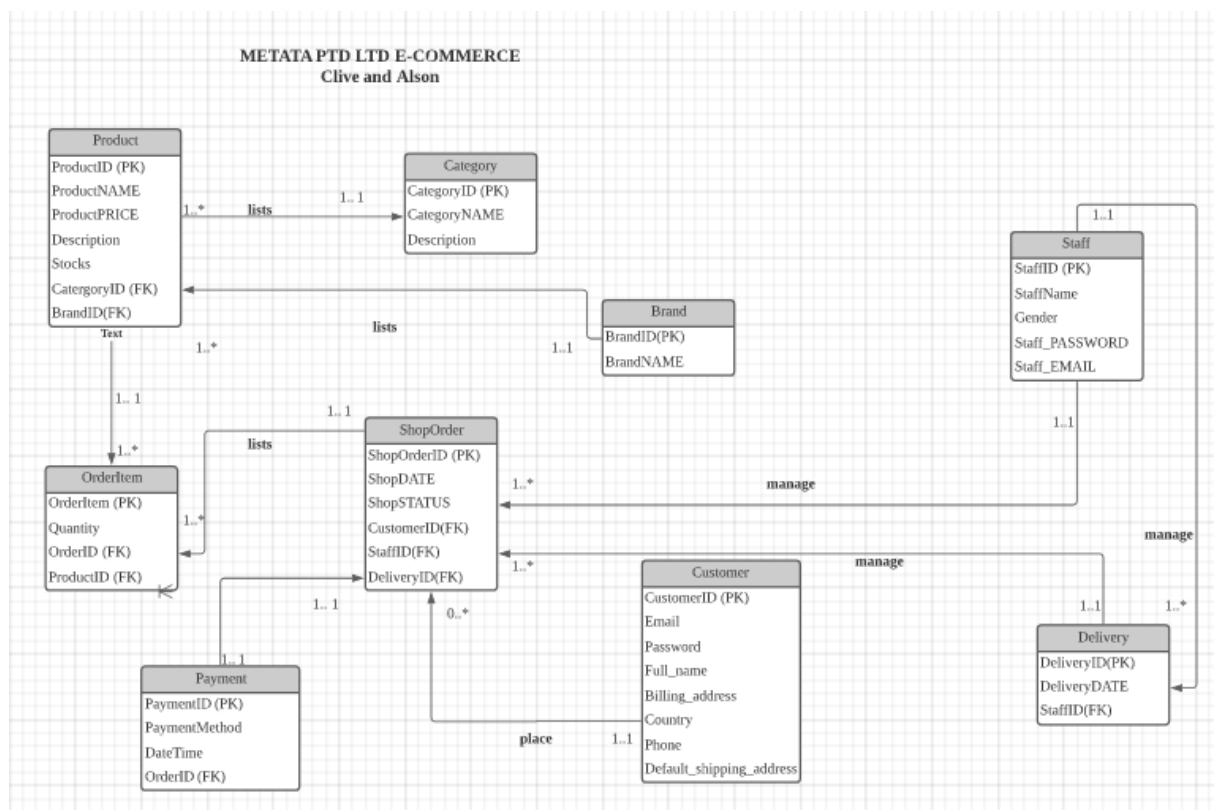


2. Design Documents

2.3. Site Map



2.4. Entity Relationship Diagram



3. Conclusion

Our website is far behind the competitors mentioned above as compared to the completion of our website, for example, the design and database are not stable and secure for users. The website is not ready for payment like a partner for online payment visa, MasterCard, and Paypal.

4. Reflections

Alson: I learned that making the pages has a lot of code needed to write and they are linked, so it is case-sensitive making sure there is no error before proceeding to the next part. My time management is bad as no self-discipline

cause the delay of the project. I will do the login and landing page earlier as I don't know what we are able to do without the ER diagram. The most difficult part will be adding the database as the entities in our project has Image so causes us unable to add to them. In the end, we have to change the migration personally.

Clive: I have learned how to create basic features like login, pages, and register based on the tutorial. For this project, I did not manage my time wisely and have been struggling with it. What did go right was at the start we were on the right track, however, due to the fact we got delayed our project because our ER diagram needed to be changed and updated. To be honest, this project is one of the toughest among the other projects that I did. I felt that it is because there is much software we need to learn in the subject and the pace was too fast. I would be able to manage the project by having more time to understand and learn from the basics of Visual Studio 2019. Another reason that got me off track was when my visual studio 2019 had some problem while doing lab 8 and the software could not work. Hence, I have to reinstall the visual studio and redo everything again.

5. References

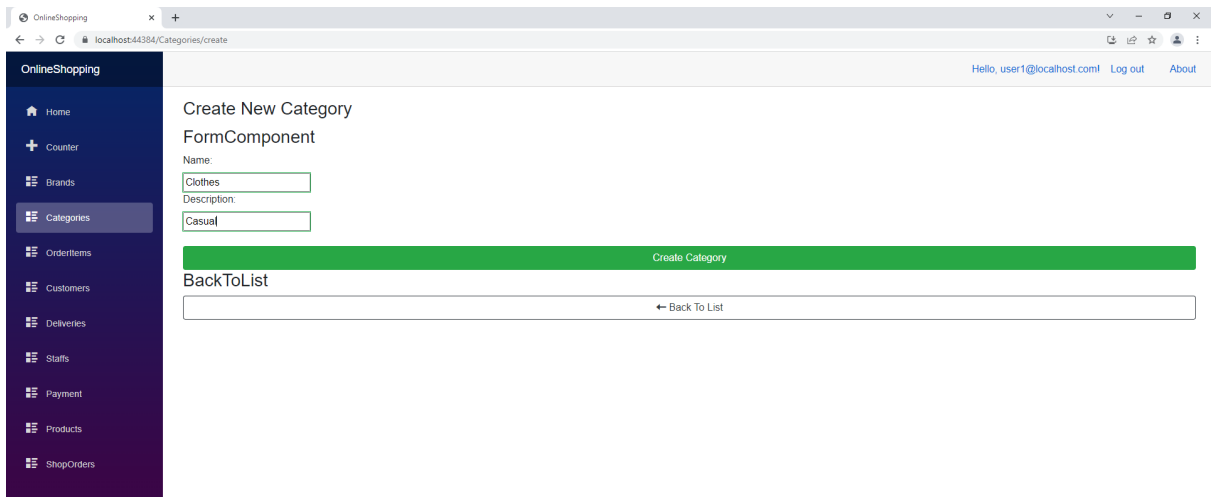
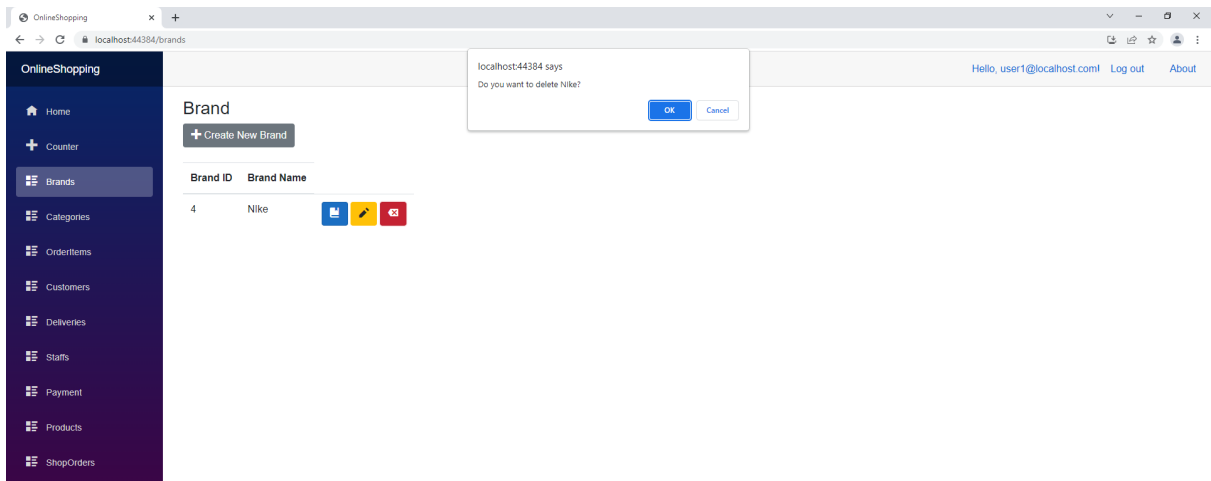
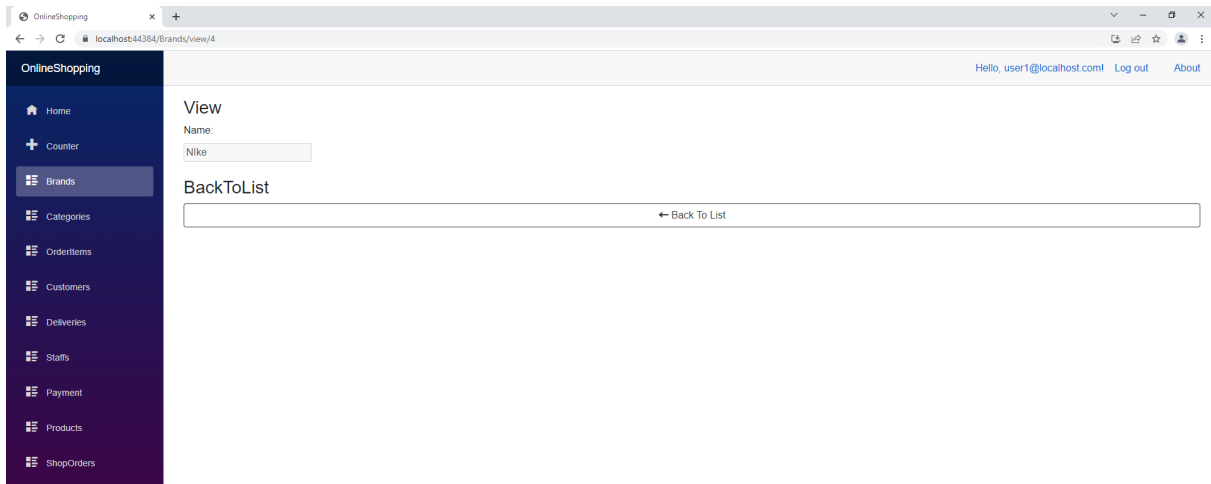
- <https://www.britannica.com/topic/Amazoncom> [1]
- https://www.simonconsulting.at/amazon-vn_EN.html [2]
- <https://www.doofinder.com/en/blog/selling-on-amazon-advantages-and-disadvantages> [3]
- <https://www.trustpilot.com/review/www.amazon.com> [4]
- <https://www.warc.com/newsandopinion/news/taobao-mall-targets-chinese-online-shoppers/27444> [6]
- <https://goodhopefreight.com/taobao-shipping/no-updated.html> [7]
- <https://www.digitalcommerce360.com/2019/05/30/why-its-so-hard-to-root-out-fake-goods-in-china-ecommerce/> [8]
- <http://ejournal.aibpm.org/index.php/IJTHAP/article/view/594> [9]

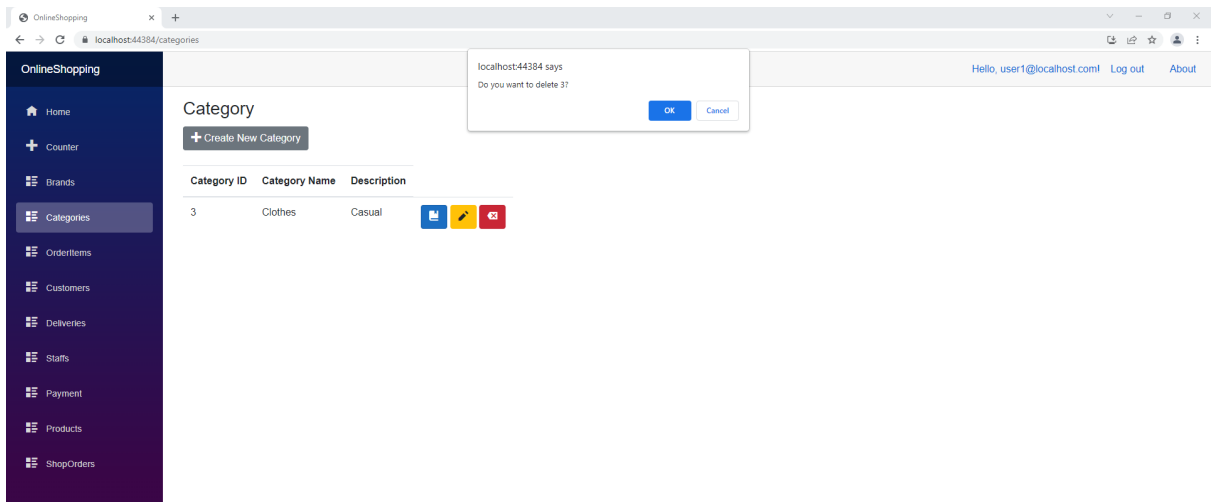
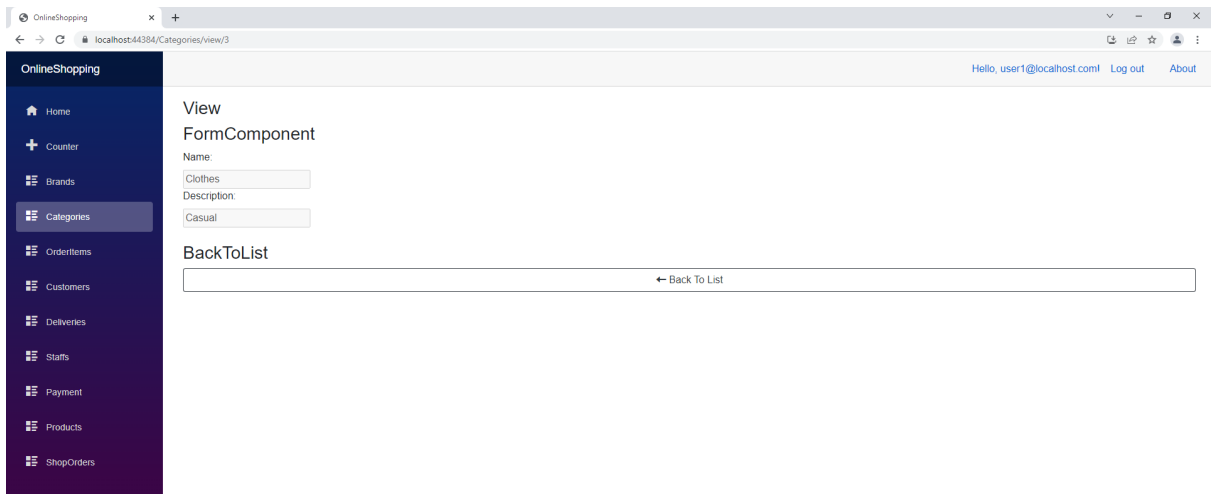
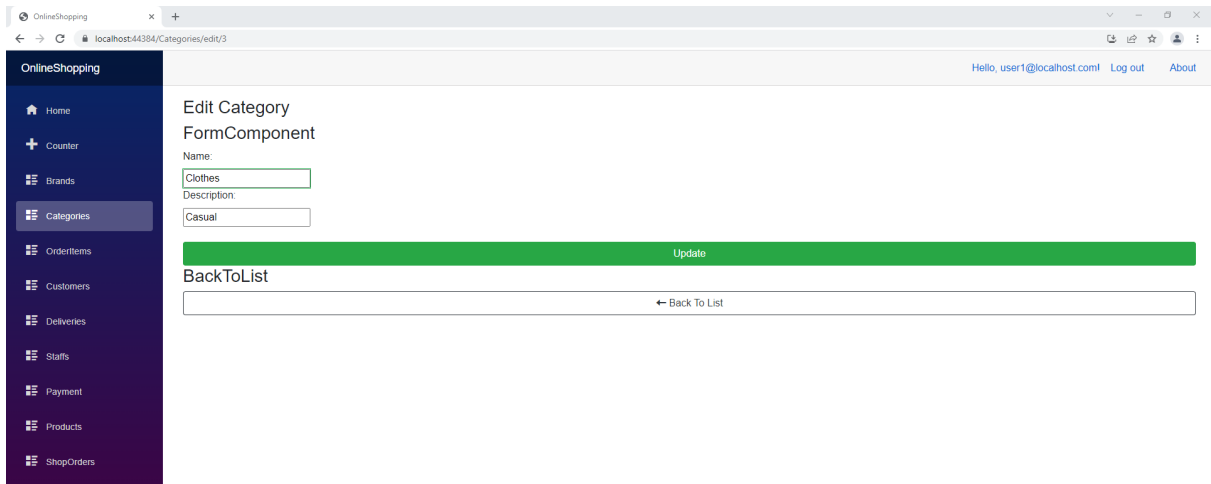
6. Appendix

The image displays two screenshots of a web application titled "OnlineShopping". The application has a dark blue sidebar with a menu containing: Home, Counter, Brands (selected), Categories, OrderItems, Customers, Deliveries, Staffs, Payment, Products, and ShopOrders. The top right of the application shows the user "Hello, user1@localhost.com" with links for "Log out" and "About".

The first screenshot shows the "Create New Brand" page. It features a form with a "Name:" label and a text input field containing "Nike". Below the input field is a green button labeled "Create Brand". At the bottom of the form is a "BackToList" section with a button labeled "← Back To List". The browser's address bar shows "localhost:44384/Brands/create".

The second screenshot shows the "Edit Brand" page. It features a form with a "Name:" label and a text input field containing "Nike". Below the input field is a green button labeled "Update". At the bottom of the form is a "BackToList" section with a button labeled "← Back To List". The browser's address bar shows "localhost:44384/Brands/edit/4".





OnlineShopping

localhost:44384/OrderItems/create

Hello, user1@localhost.comLog outAbout

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

Create New Order Items

The ProductID field is not valid.

Quantity:

1

Product:

-- Select Product --

The ProductID field is not valid.

Order:

Create Order Item

BackToList

Back To List

OnlineShopping

localhost:44384/Customers/create

Hello, user1@localhost.comLog outAbout

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

Create New Customer

FormComponent

Email:

Lee@gmail.com

Password:

123321312

Full Name:

Elio Lee

Billing Address:

353A amik ave 1

Country:

singapoe

Phone:

98394932

Default shipping address:

353A amik ave 1

Create Customer

BackToList

Back To List

OnlineShopping

localhost:44384/customers/

Hello, user1@localhost.comLog outAbout

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

Customer

Create New Customer

Customer ID	Email	Password	Full Name	Billing address	Country	Phone	Default shipping address	
3	Lee@gmail.com	123321312	Elio Lee	353A amik ave 1	singapore	98394932	353A amik ave 1	<div></div>

OnlineShopping

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

localhost:44384/Customers/edit/3Hello, user1@localhost.comLog outAbout

Edit CustomerFormComponentEmail:Lee@gmail.comPassword:123321312Full Name:Elo LeeBilling Address:353A amik ave 1Country:singaporePhone:98394932Default_shipping_address:353A amik ave 1UpdateBackToListBack To List

OnlineShopping

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

localhost:44384/Customers/view/3Hello, user1@localhost.comLog outAbout

ViewFormComponentEmail:Lee@gmail.comPassword:123321312Full Name:Elo LeeBilling Address:353A amik ave 1Country:singaporePhone:98394932Default_shipping_address:353A amik ave 1BackToListBack To List

OnlineShopping

HomeCounterBrandsCategoriesOrderItemsCustomersDeliveriesStaffsPaymentProductsShopOrders

localhost:44384/customersHello, user1@localhost.comLog outAbout

Customer

Create New Customer

Customer ID	Email	Password	Full Name	Billing address	Country	Phone	Default shipping address	
3	Lee@gmail.com	123321312	Elo Lee	353A amik ave 1	singapore	98394932	353A amik ave 1	<div></div>

localhost:44384 says
Do you want to delete 3?

OKCancel

OnlineShopping

localhost:44384/staffs/create

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

Create New Staff

Staff Name:

Gender:

Staff Password:

Staff Email:

Create Staff

BackToList

Back To List

OnlineShopping

localhost:44384/staffs/

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs




Payment

Products

ShopOrders

Staffs

Create New Staff

Staff ID	Staff Name	Gender	Staff Password	Staff Email	
3	Clive	Male	123321123	tan@gmail.com	  

BackToList

Back To List

OnlineShopping

localhost:44384/staffs/edit/3

Hello, user1@localhost.com | Log out | About

Home

Counter

Brands

Categories

OrderItems

Customers

Deliveries

Staffs

Payment

Products

ShopOrders

Edit Staff

Staff Name:

Gender:

Staff Password:

Staff Email:

Update

BackToList

Back To List

