Technological University Dublin

Major Group Project

By

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Group Project

Submitted in part fulfilment for the degree of

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Institute of Technology Blanchardstown, Dublin, Ireland

Declaration

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I, Dylan Hallissey, Kmal Elhaj and Joshua Olunana declare that this thesis titled, 'Project Proposal" and

the work is presented in it are own. I confirm that:

▪ *This work was done wholly or mainly while in candidature for a research degree*

at this University.

▪ *Where any part of this thesis has previously been submitted for a degree or any*

other qualification at this University or any other institution, this has been clearly

stated.

▪ *Where I have consulted the published work of others, this is always clearly attributed.*

▪ *Where I have quoted from the work of others, the source is always given. With*

the exception of such quotations, this thesis is entirely my own work.

▪ *I have acknowledged all main sources of help.*

▪ *Where the thesis is based on work done by myself jointly with others, I have made*

clear exactly what was done by others and what I have contributed myself.

Signed: Dylan Hallissey

Signed: Kmal Elhai

Signed: Joshua Olunana

Dated: 20/05/2021

Contents

Project Overview

Project Title

This project will develop Voucher System for Local Businesses; due to this current covid-19 pandemic, many organizations had to close down for a definite time due to the new covid-19 guidelines that have been put on by the government. This has put huge pressure on companies from an economic point of view.

Project Plan

As we discussed in our project, Kmal Elhaj will be designing the home page, contact page Joshua Olunana will do the checkout and payment page, Dylan Hallisey will do the gift cards, and the vouchers page also add to the basket. The application will be called VoucherCart.com. The project we will use HTML, PHP as our programming language. We will have UML diagrams to use some actors like members, login, System, etc.

The Voucher System is an application that will enable the online customers to choose a voucher with a specific business, this can be for example restaurants or households assistance such as electricity, gardens and cleaning. The main technologies we will be using for this project will be HTML, CSS, PHP.

Motivation

Our motivation for doing this project is to help small and local businesses allow their customers to buy vouchers for their shops online giving the fact they cannot go to the shops because of the government implemented restrictions.

Goals

The main goal is to help people buy vouchers from their local shop online, and be able to redeem the vouchers when they need it.

System Analysis

The aim of this chapter is exactly what is the application supposed to do? This should be done by talking about the contract between the software developers and the clients. This chapter we will talk about the functional requirements and data requirements.

Functional Requirements

To complete this project, we plan on using JavaScript, JSON, HTML, CSS, and PHP. We are implemented an application voucher system. It should have a Home Page, About Page, and Contact Page. For the Home page, it should have an option for the customer to decide where they would like to shop. The customers should be able to select their choice. The customer then would click on the select button, and the choices should come up.

The functionality for each page:

Register Page – This will let any customers register for the website, so to use the service. They will need their name email and password.

Login Page, this will allow existing customers to log into the website to use the service and buy gift cards and check if they have any gift cards. An email and password to log in.

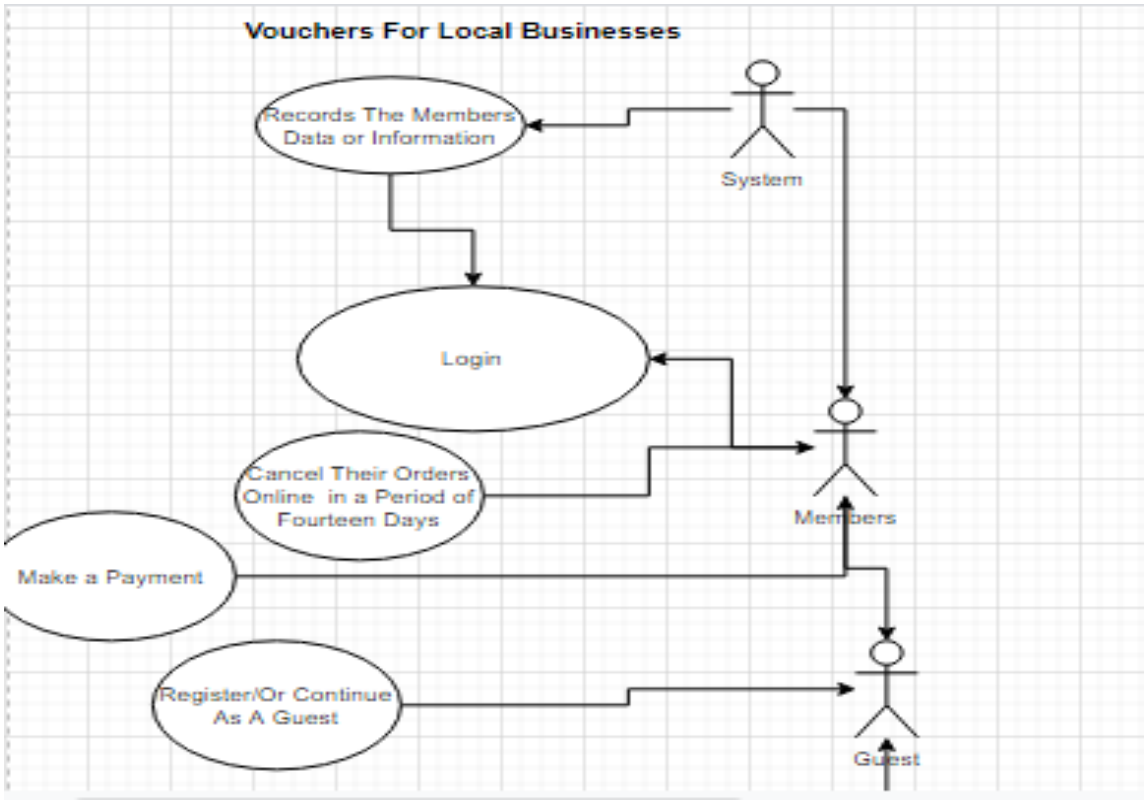
About Page- This will allow people know what services are offered to them by using the website.

Product Page – This page will allow people to view all the products from different shops that are available.

Shopping Cart Page – This will allow the customers to see what products they have picked and had in their shopping cart.

Payment Page – Customers will have to pay for the products that they have chosen. They will need to enter their name, billing address, and visa debit card details to pay.

Use case Diagram:



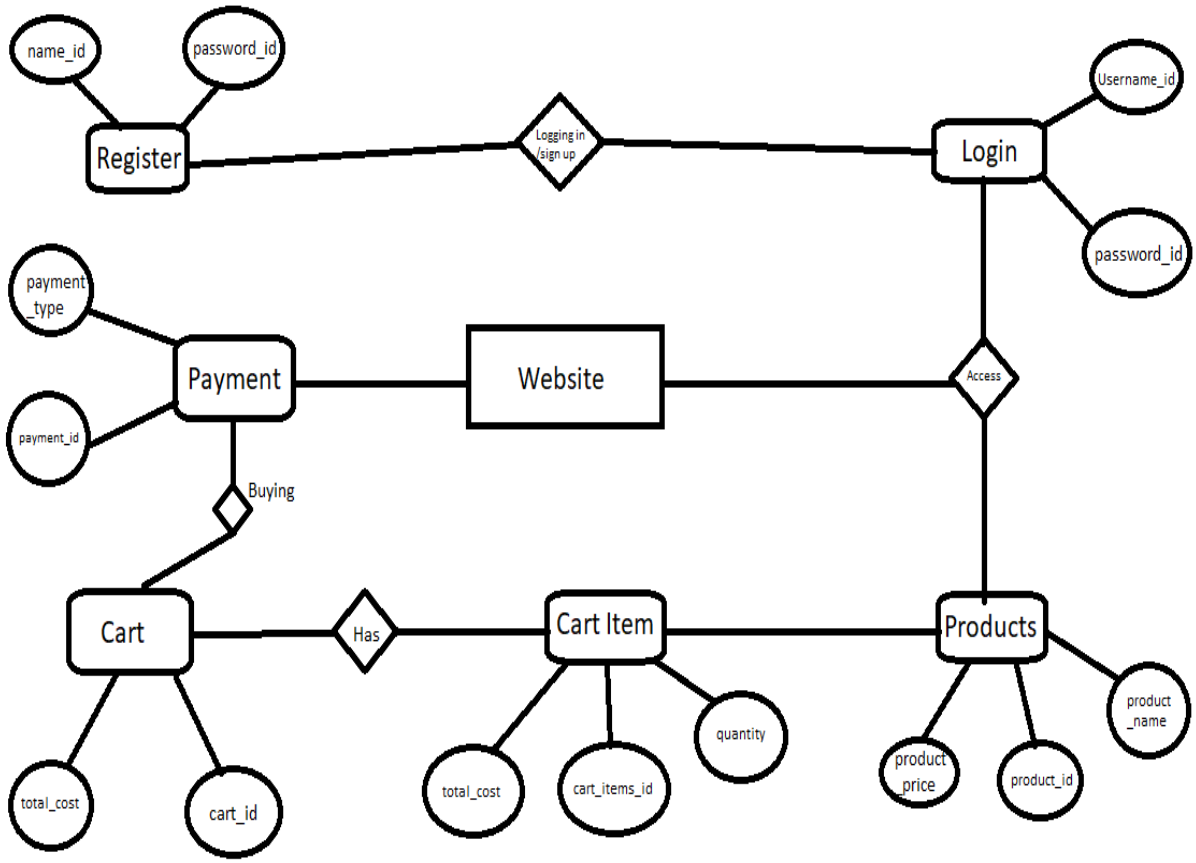
Data Requirements

The data requirements are overview of the entities and data in our system, and what the data needs to be stored about them. In our voucher website the main entities be products, payment, login cart and register. We will tackle on completing our own entity relationship diagram to understand more with what we need for our data requirements.

Entity-Relationship Diagram

An entity relationship diagram gives a snapshot of how these entities relate to each other. It would be like blueprint that underpins your business architecture, offering a visual representation of the relationships between different sets of data entities. In the diagram below is how our voucher site will have entities that will relate to each other.

Diagram:



System Design

This stage aims to answer the question of how the application can be implemented.

User interface

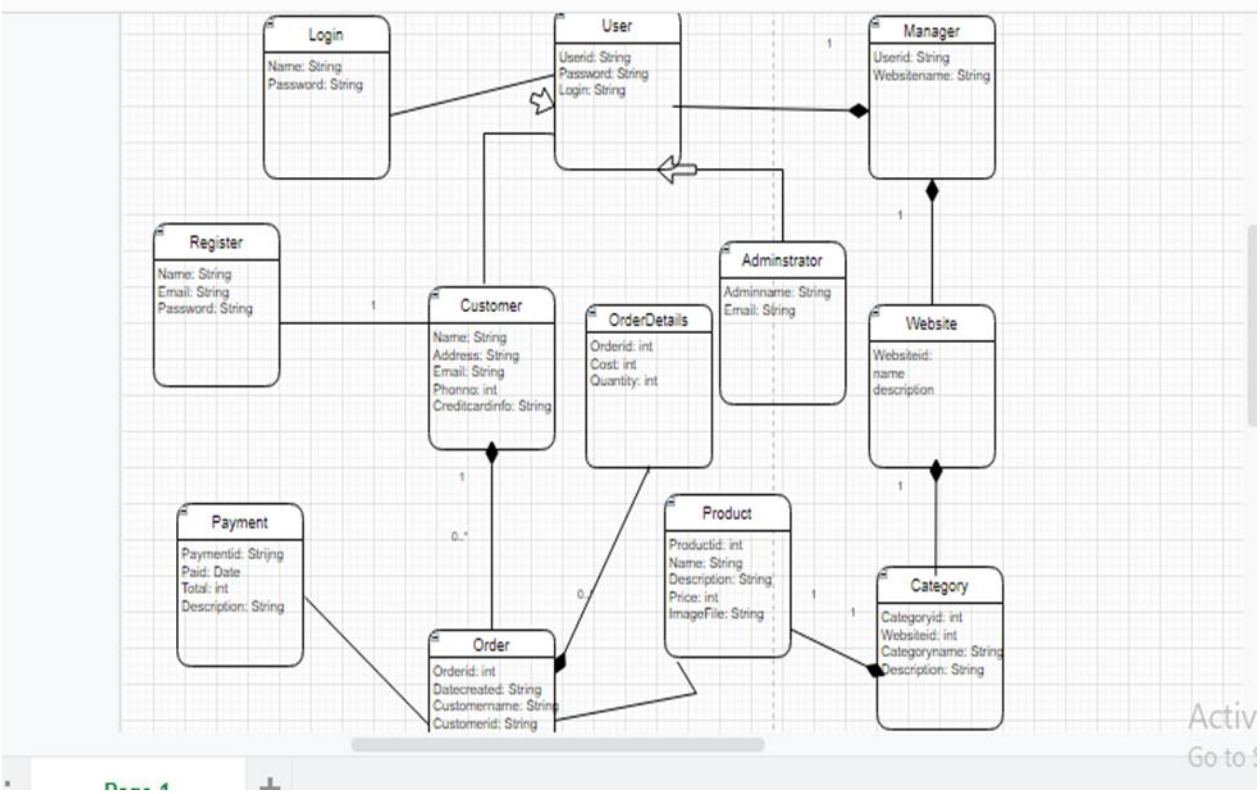
We will talk about how the user interface supports each of the use cases. The user interface is the visual layout of how a user interacts with the website or technological product.

This could be the control buttons of a radio or the visual layout of a webpage. A use case is a written description of how users will perform tasks on our website. It outlines from a user's point of view that a system's behaviour responds to a request. Each use case is represented as a sequence of simple steps, beginning with a user's goal, and ending when that goal is fulfilled.

Functionality design

Our Functional design is model both the structure of each software component in the systems, and also how they interact with each other. We will design a class diagram to show how each software components interact. What we will have in our class diagram is user, login, manager, register, customer, order details, adminstration, payment, product and category these be the main fuctionalities for our class diagram we just have to show in our class diagram how they interacte with eachother.

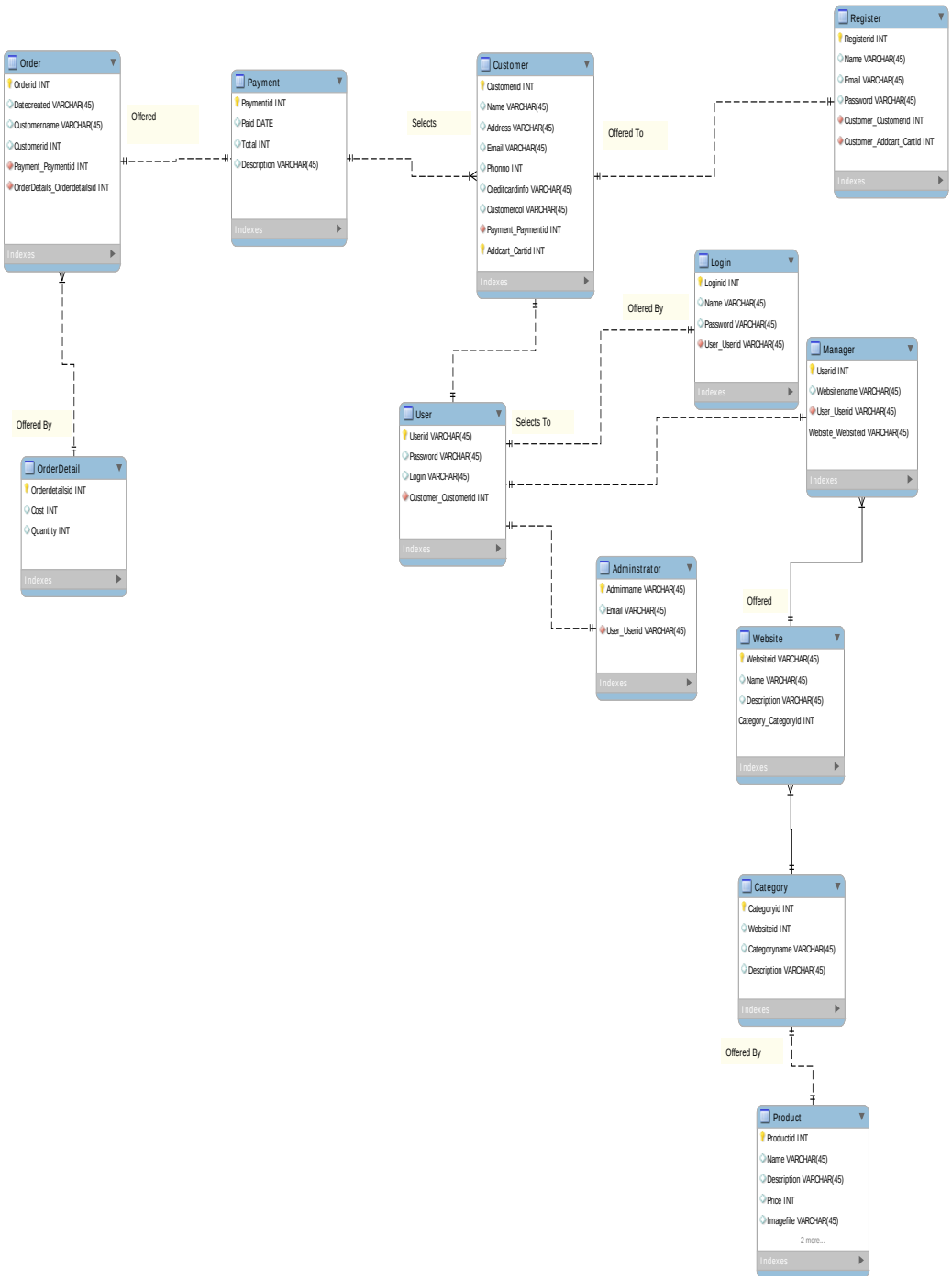
Class Diagram:



Data Design

The data design should be detailed design of the data storage components that we should be presenting. We will design a ERD to show the entity relationship as a method of showing visualizing data and Software applications these entity relationships are meant to make those relationships come to life on the screen and making it easier for us to understand the data design for our project.

ERD:


Order
Orderid INT
Datecreated VARCHAR(45)
Customername VARCHAR(45)
Customerid INT
Payment_Paymentid INT
OrderDetails_Orderdetailsid INT
Indexes
Offered
Payment
Paymentid INT
Paid DATE
Total INT
Description VARCHAR(45)
Indexes
Selects
Customer
Customerid INT
Name VARCHAR(45)
Address VARCHAR(45)
Email VARCHAR(45)
Phonno INT
Creditcardinfo VARCHAR(45)
Customercol VARCHAR(45)
Payment_Paymentid INT
Addcart_Cartid INT
Indexes
Offered To
Register
Registerid INT
Name VARCHAR(45)
Email VARCHAR(45)
Password VARCHAR(45)
Customer_Customerid INT
Customer_Addcart_Cartid INT
Indexes
Login
Loginid INT
Name VARCHAR(45)
Password VARCHAR(45)
User_Userid VARCHAR(45)
Indexes
Offered By
Manager
Userid INT
Websitename VARCHAR(45)
User_Userid VARCHAR(45)
Website_Websiteid VARCHAR(45)
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Offered By
OrderDetail
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Quantity INT
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Category
Categoryid INT
Websiteid INT
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Description VARCHAR(45)
Indexes
Offered By
Product
Productid INT
Name VARCHAR(45)
Description VARCHAR(45)
Price INT
Imagefile VARCHAR(45)
2 more...
Indexes

Implementation of the System

The group implemented working system we all decide to work on separate pages, then we have video calls every week to see how we been doing.

We designed a website for users to be able to purchase vouchers online for all types of companies due to the Covid-19 pandemic that has occurred and they have to follow the guidelines.

The website has the Home page, Products, Add cart, Payment, About, Contact. In the home page the users will be able to explore on the website. Dylan worked on the add cart page and how he implemented a working system with the add cart we used html to add all the products on display and we added a button that the user can click the button which will add that product in a pile where you can buy a product.

We used CSS style to implement the add cart page. When each product is in the cart it will calculate the price with all the products you have in the basket and when the user finish, they will click to payment and it will bring the customer to the payment page.

For the products page, the customer can click in buy now and this will take him to the add cart page so he can choose any company voucher they prefer for example Tesco this will be added in the basket he/she can either remove it or proceed with the payment.

if he decides that he wants to purchase the voucher it will take him/her to the payment page in order to proceed with the payment in the payment page it will ask the user to give their full name, email, card number, card cvc, expiry. There is also an about page where the user can read about our website.

With the contact page it will ask the users to put their name, email, phone number, message. This can give us an overview of what the customers has written to us by email if there is an error about the website that the customers do not like they can feel free to use the contact page to send us a message in the email so we can help solve the user problem.

There is also a logout button where it will take them to the register page or the signing page if they wish that they do not want to register or sign in they would still be able to purchase things from our website even if they are guest or members.

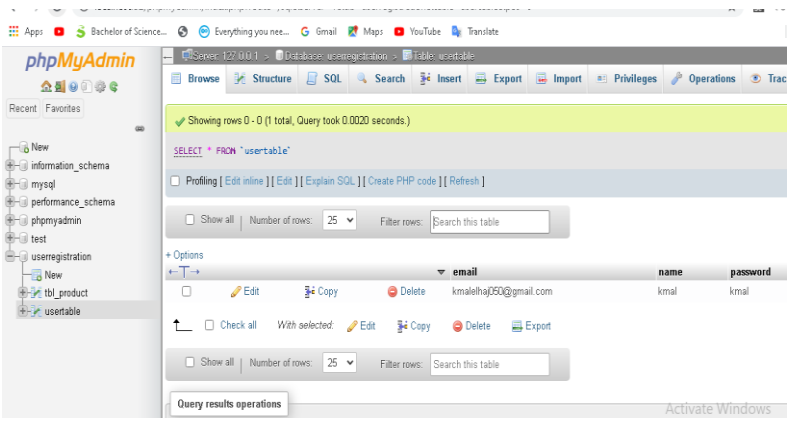
Testing and Evaluation

The website application that we made can enable the user or the customers to purchase vouchers online where they can register in our website. Whenever they register this information is inserted in our database telling us that there is a new user that has register in our website with all his details available to us to see. The part that has being tested out on the website is the register and the login pages in order for that to work we had to write an SQL code to connect to our database using the xampp server or laragon.

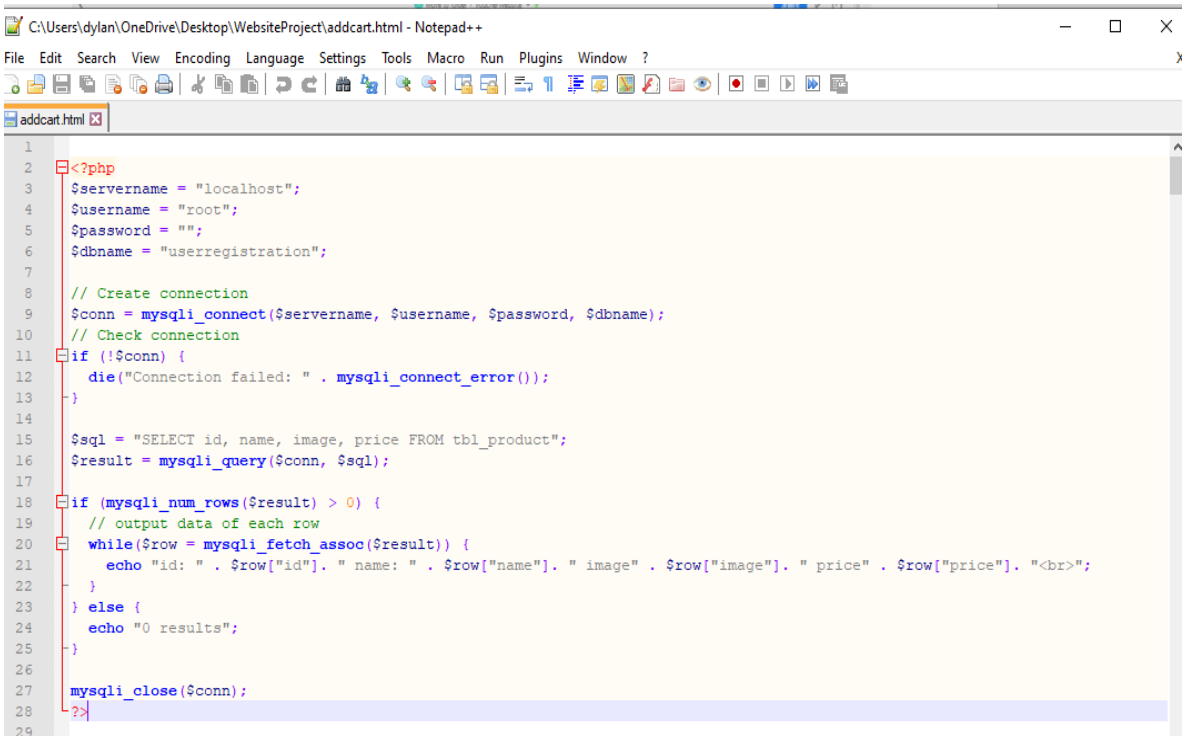
Screenshot of registration database

```php
<?php

header('location:login.php');


    $email = $_POST['email'];
    $password = $_POST['password'];


    $s ="select * from usertable where email = '$email'  && password = '$password' ";


    $result = mysqli_query($conn, $s);

    $num = mysqli_num_rows($result);

    if($num == 1){



    }

$conn = new mysqli('localhost', 'root', '', 'userregistration');
```

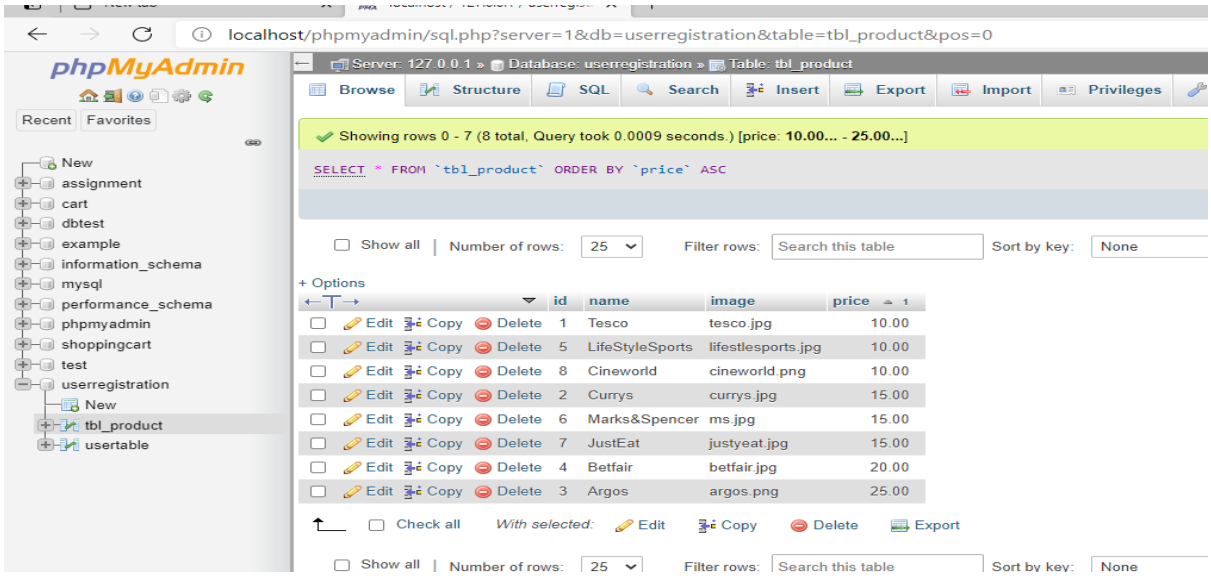
Results of the usertable SQL:



Screenshots of the php code for the database:



Results of the SQL:



Conclusion

During the process of making my pages I found it difficult to do put I did research and I found out how to do the work. I worked on the payment side of our website which lets the user pay for the products that they want to purchase and after the pay they have to get an email of their gift card number which I found hard to do but I got it to work in the end. I felt I could have done stuff differently if I got another chance. In conclusion I found making the website very fun and I learned a lot during the process of making the website

The registering page, the log out page and contact page was completed by Kmal. Kmal also needed a database for his registering which he was able to complete. Dylan completed the product page and add cart page. he also had to do database for the add cart, which was also successful, Joshua tackled the contact and about page, the contact page was difficult, but the task was successful. We each help each other if we needed and we video chat once a week to keep up to date with each other to see how our pages are getting on. We communicated well and we learned a lot during the process of making this project.

We successfully got the website working, the product page was working fine, the user can easily scroll to each product, each product has a button underneath the information about the product, but the button lets the customer know if they are interested to go to the add cart page, this successfully work, and the product page was a success.

The add cart page has the image and name of the product but it does not have what the product about because that is already shown on the product page. The add cart has the price and add to basket by each product and this successfully worked, it suited the style of the page and the basket is just below of the page. We used the page and layout by using html and style CSS, we also used my php admin to use database which also successfully worked there to add cart page was successful.

During the process of making the payment and contact pages we found it difficult to complete, but we did research and found out how to complete the task. We worked on the payment side of our website which lets the user pay for the products what they would want to purchase and after the pay they have to get an email of their gift card number which was difficult to do but we got it to work in the end.

In conclusion by being able to complete the gift card website we found it making the website very fun, we worked good in a group to tackle the task, we each had a page to complete, and we helped each other if we needed it.

Appendix A: Program Planning

This project went well we didn't have to redo anything and the project went according to plan, the plan we set out at the start was successful, there was nothing better we thought we could with the project, we completed task that we aimed for.

Kmal Elhaj

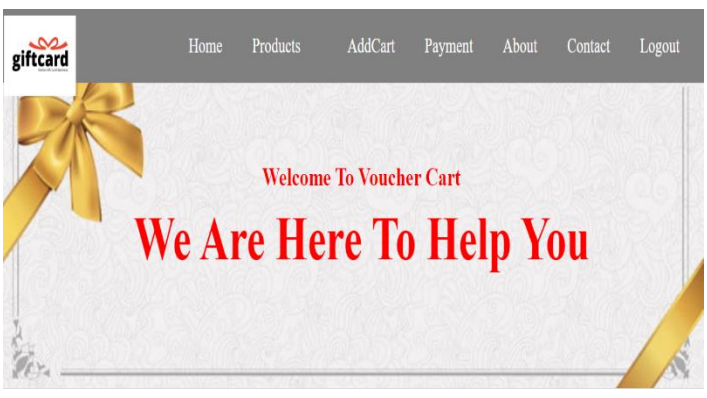
Technologies: HTML, CSS, JAVASCRIPT, PHP, MySQL

My contribution to the project was that the first thing I started with is the login page because the login page seem to be hard to do so I decided to start with the hardest then I made the index or home page it was easy to do I also did all the navigation bar buttons up at the top and linked them together including the design of the website when you click in home it takes you to the home then when you click in contact it takes you to the contact page then if you click in payment it takes you to the payment page etc. and so on next one I did is contact page making a simple form that will enable the customers to write whatever message they would like to write into it adding their name, phone number, email and then the message this will help us with what the customers share and what things needs to be fixed in future. Next one is the signup page this will allow customers to sign up and become a member of our website I also added a JavaScript to the website this JavaScript will make the website validated for example a customer has to write his name in the signup form if the customers does not write his or her name then it will give a message up at the top please fill in your name and so on in order for them to sign up.

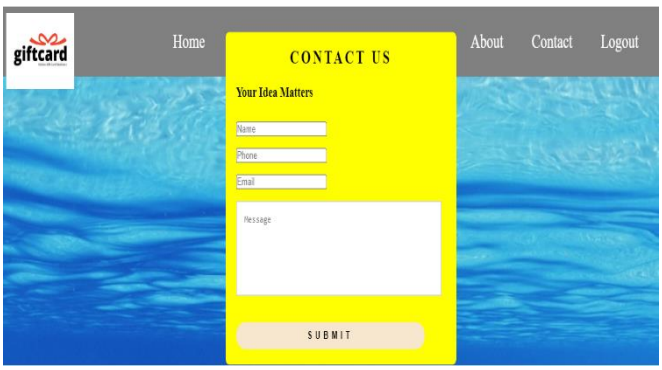
Sign in Page

SignUp Page

Home Page and Linking Nav Buttons



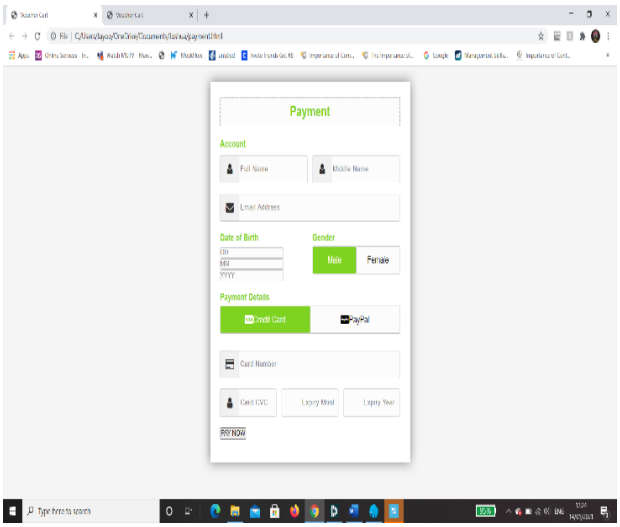
Contact Page

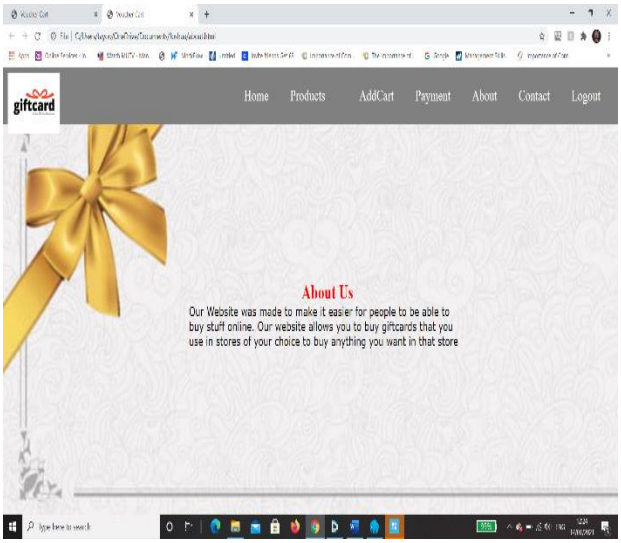


Joshua Olulana

Technologies: HTML, CSS

My contribution to our project was to make a payment page that allows people to enter their information and credit card info and lets them pay for the product that they want to buy I also wrote an about page that just lets people know about the website and what they can do.

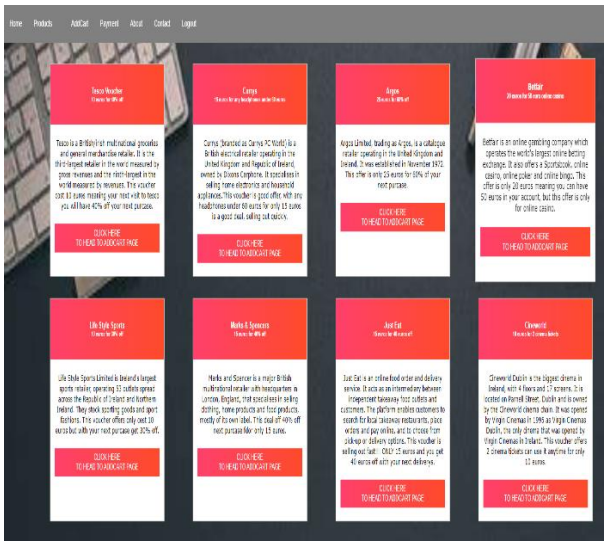


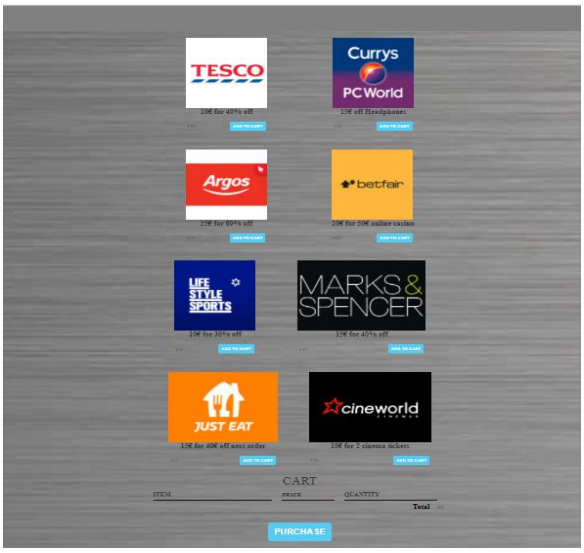


Dylan Hallissey

Technologies: HTML, CSS, JAVASCRIPT, PHP, MySQL

My contribution to our project was to make add cart page and a product page. I connected the database to the add cart by using SQL and by the help by the class diagram and ERD I was able to connected my pages with everything and connected it to the database.





Appendix B: Diary

12th- 18thOctober

Meeting up with the group. The group is Kmal, Dylan and Joshua, we talked about which lecturer we will decide to help us with the project, but we also need to decide which project we decide to do before picking a lecturer. This week we will focus on the project then see which lecturer can help us with this project.

19th-25th October

We all decided on a project which would be Voucher System for Local Businesses, the project overview is With the current Covid-19 pandemic a lot of companies have had to close their businesses for a certain period of time due to Government restrictions. This has put enormous pressure on businesses from a financial perspective. The Voucher system is an application that allows users to book a voucher with a particular business in their local area to be redeemed at a later date. The idea is to help businesses that are struggling in the current environment.

The aim of this project is to provide an online app that will allow the user to book a voucher with a particular business. This could be bars, restaurants or household services such as electrical, plumbing, gardening, cleaning, etc. we are all good with html and java scripts therefore it suited Kmal, Joshua and me. Kmal suggested Orla to monitor us with the project, we contact Orla straight away and Orla wanted a meeting straight away to get us started on just before Halloween break.

On 21st we had a meeting with Orla, the meeting went on for half hour. Orla discussed about how we are going to approach this project and sent us on the group handbook to work on the document.

26th-2nd November

We all had another meeting on Wednesday on the 28th, we showed Orla chapter one for the document, we worked on the document which chapter one will be about the introduction. The objectives that I contributed on the document was analyse situation and techniques, design a solution, and how we will implement a working prototype. Orla suggest to work on chapter two on the document this week and show it to her for next week.

3rd-10th November

We had a meeting take place on the 3rd November which was on a Tuesday. We showed Orla what we had done for chapter two, we focus on functional and data requirements for the chapter.

11th-18th November

We had a meeting take place on the 11th November. We showed Orla what we had done for chapter three. We had to do the system design for this chapter

19th-26th November

We got started on the project. We had meeting on the 19th with Orla. We talked about how we be starting this project and which pages of the website each of us will be working on.

27th-4th December

Focus on the pages.

5th-12th December

We focus on our project pages.

13th-20th December

Meeting with Orla to show what process we have done.

21st -28th December

Christmas break

7th – 14th January

demonstrate our pages so far to Orla.

8thst-15th January

We finally finish semester, we have couple weeks break but we decide during them breaks we will look over chapter 1,2 and 3, make sure its completely done.

22nd-29th January

We had video call to see how we are doing with the document; we all had our part of the 3 chapters done.

5th- 12th February

We met up with Orla on 9th February, we talked about our pages and what we have to do, Kmal has to get database of his registration complete, Joshua has to get the payment page working and I am finishing the product page before focusing more on the add cart page.

19th-26th February

We had meeting with Orla on the 23rd, Kmal got his database working, he's focusing more on his login and sign page, josh has the about page done, he still focusing on sorting out the payment page and Dylan finish the product page he's now focusing on the add cart page more.

5th-12th March

We had video chat that week, Kmal set up the website to make it work on mobile devices, Joshua still working on the payment page and Dylan has the add cart done he has to fix up the database.

12th-26th March

We video chat that week and we decide to also focus on chapter 4,5 and 6 during the easter break and to also try finish our pages.

12th -26th April

We met up with Orla to give test run of our pages, Kmal his database working, the contact page working, and the login page looks good, Josh has the about page done he has to try finish the payment page to work, Dylan has product page working he just to try fix his database on his add cart page.

3rd- 10th May

We have 2 weeks before are demo the project. Dylan got his database working and Josh got his payment page working, All the pages are done and ready to demo.

11th-20th May

We are focusing more on the document on chapter 4, 5, and 6, we have everything done but we just have to look over it and make sure we didn't make mistakes.