




7420 Web Application and Development(PHP)




Quality Souvenir







ON SALE



About us	Products	Services
About us	Maori Gifts Mugs T-Shirts Home & Living	Shipping Payment Contact us



Quality Souvenir



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Students: **Mengxue Zhang**

Lecturer: **Xiaosong Li**

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1 Introduction

This is an online shopping website for Quality Souvenir company where online customers can purchase souvenirs and make orders. Meanwhile, administrator can manage their products(category, supplier), orders and members. The online store mainly sales several kinds of local souvenirs,include Maori gifts, Mugs and other categories. The website has developed both user interface and backend management. The backend uses a very popular framework lavarel and some packages such as crud generatoe.

Other frontend techniques are HTML, CSS, JavaScript and Bootstrap framework.

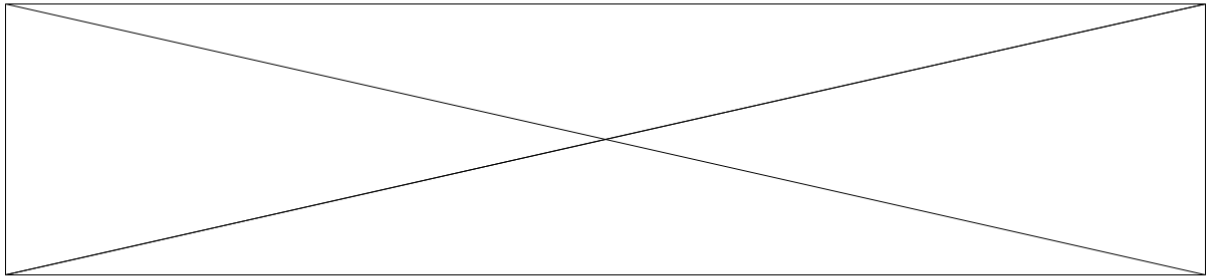
Test Account:

Name	Description
Website URL:	http://dochyper.unitec.ac.nz/zhangm67/php_assignment2/public/
Admin: Password:	admin@email.com 123456
Customer: Password:	member@email.com 123456

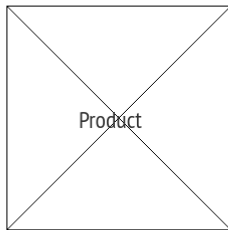
2 User Interface Design

2.1 Wireframes design

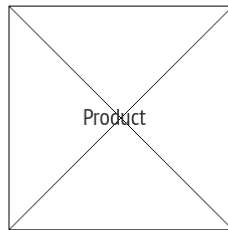
2.1.1 Home page



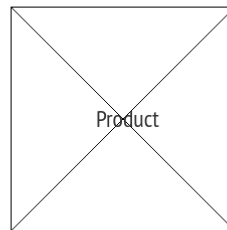
ON SALE



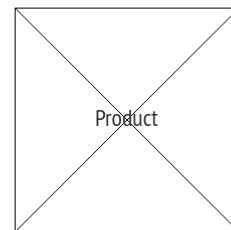
Product



Product



Product



Product

About

About us

Products

Maori Gifts
T-Shirts
Mugs

Services

Shipping
Payment
Contact us



2.1.2 Products



Home > Products

Search Products



All Products

Name



Price

Categories

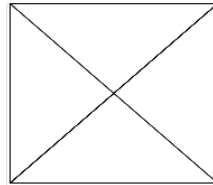
Maori Gifts

T-Shirts

Mugs

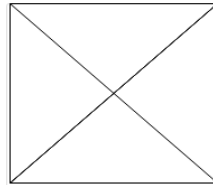
Home&Living

On Sale



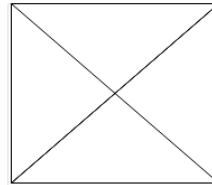
Name

NZD \$



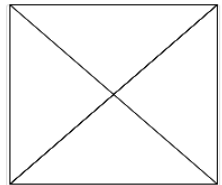
Name

NZD \$



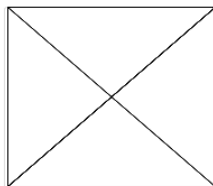
Name

NZD \$



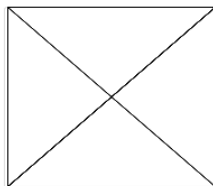
Name

NZD \$



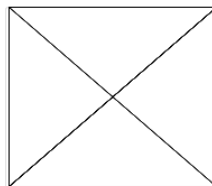
Name

NZD \$



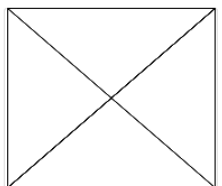
Name

NZD \$



Name

NZD \$



Name

NZD \$



Previous

Next

About

About us

Products

Maori Gifts

T-Shirts

Mugs

Services

Shipping

Payment

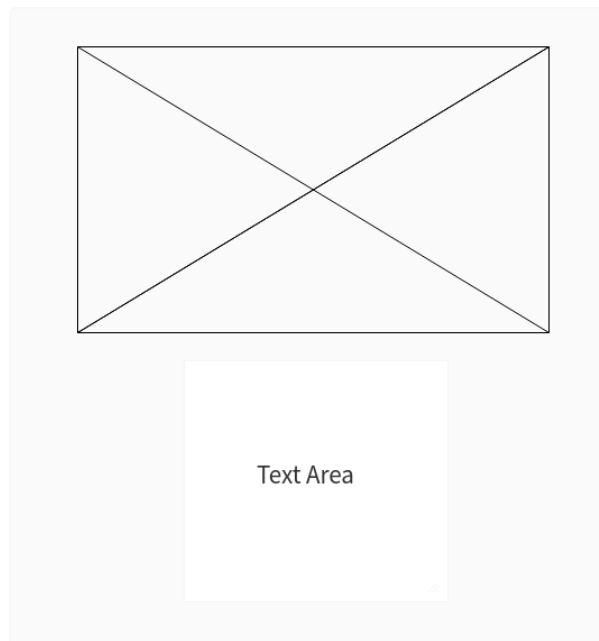
Contact us



Quality
Souvenirs



2.1.3 About

**About**[About us](#)**Products**[Maori Gifts](#)
[T-Shirts](#)
[Mugs](#)**Services**[Shipping](#)
[Payment](#)
[Contact us](#)

2.1.4 Contact us



Text Area

About

About us

Products

Maori Gifts

T-Shirts

Mugs

Services

Shipping

Payment

Contact us



Quality Souvenirs



2.1.5 Login and Register



Login

Email Address

Password

☐ Remember me

Login

About

About us

Products

Maori Gifts

T-Shirts

Mugs

Services

Shipping

Payment

Contact us



Quality Souvenirs





Home > Register

Register

Email Address

Name

Phone

Address

Password

Confirm Password

Register

About

About us

Products

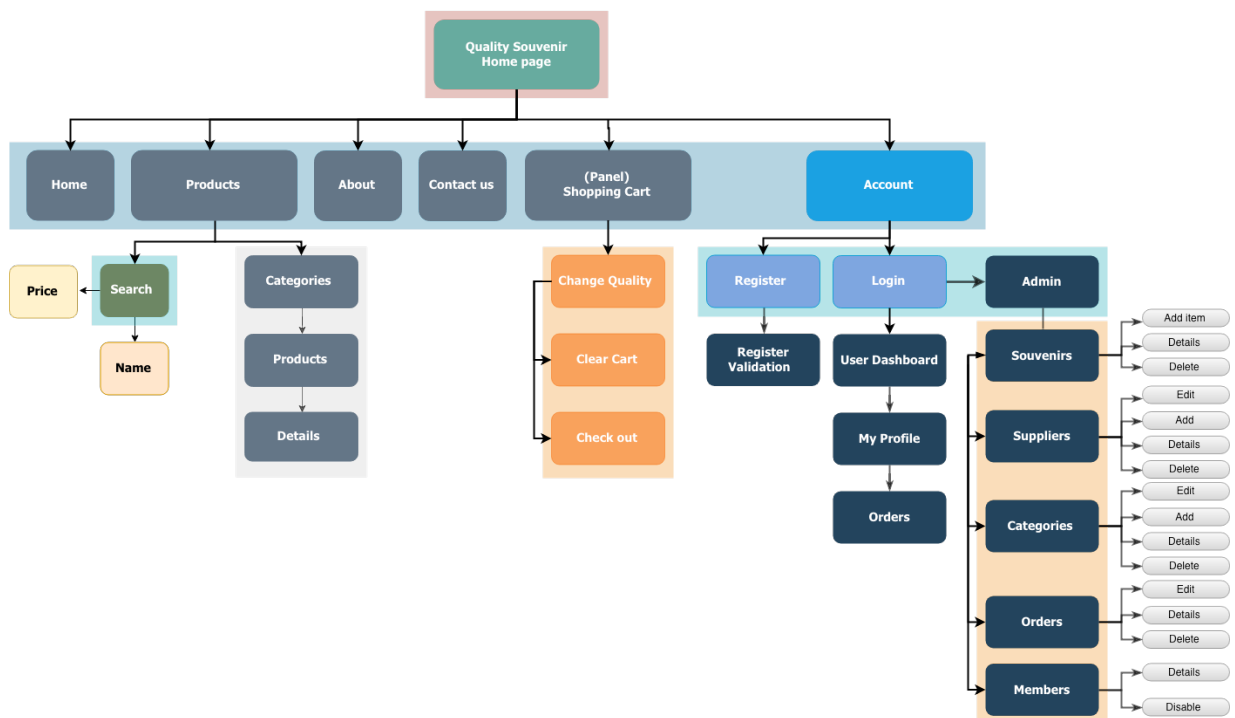
Maori Gifts
T-Shirts
Mugs

Services

Shipping
Payment
Contact us



2.2 Sitemap



3 Dataset Design

3.1 Table and fields

order_items

Field Name	Data Type	Key Constraint
order_item_id	NUMBER	PK
order_id	NUMBER	FK
quantity	NUMBER	
unitPrice	NUMBER	
product_id	NUMBER	FK

products

Field Name	Data Type	Key Constraint
product_id	NUMBER	PK
name	VARCHAR2	
price	NUMBER(5,2)	
description	VARCHAR2	
supplier_id	NUMBER	PK
category_id	NUMBER	PK
imgUrl	VARCHAR2	

suppliers

Field Name	Data Type	Key Constraint
supplier_id	NUMBER	PK
name	VARCHAR2	
phoneNumber	NUMBER	

Field Name	Data Type	Key Constraint
email	VARCHAR2	

users

Field Name	Data Type	Key Constraint
user_id	NUMBER	PK
name	VARCHAR2	
phone	NUMBER	
email	VARCHAR2	
address	VARCHAR2	
enabled	Bool	
role	member/admin	
password	VARCHAR2	

orders

Field Name	Data Type	Key Constraint
order_id	NUMBER	PK
status	waiting/shipped	
orderDate	DATE	
user_id	NUMBER	FK
lastName	VARCHAR2	
firstName	VARCHAR2	
address	VARCHAR2	
phone	VARCHAR2	
subtotal	NUMBER(5,2)	
gst	NUMBER(5,2)	
grandtotal	NUMBER(5,2)	

category

Field Name	Data Type	Key Constraint
category_id	NUMBER	PK
name	VARCHAR2	
description	VARCHAR2	

3.2 Relationships

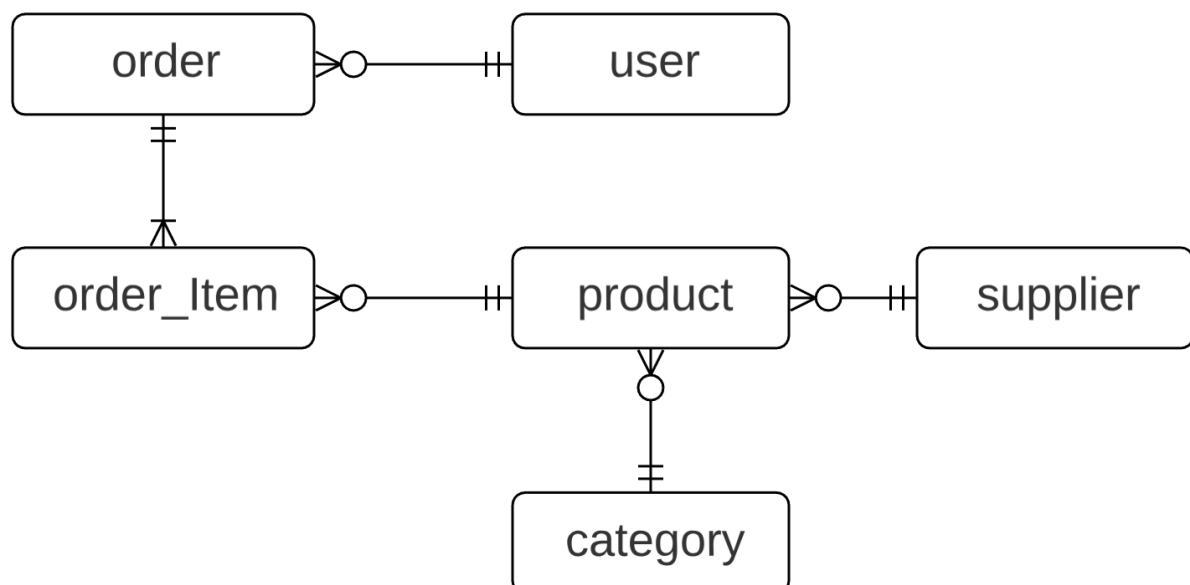
A category can have zero or many products, but one product can only belong to one and only one category.

A supplier can supply zero or many product, but one product can only belong to one and only one supplier.

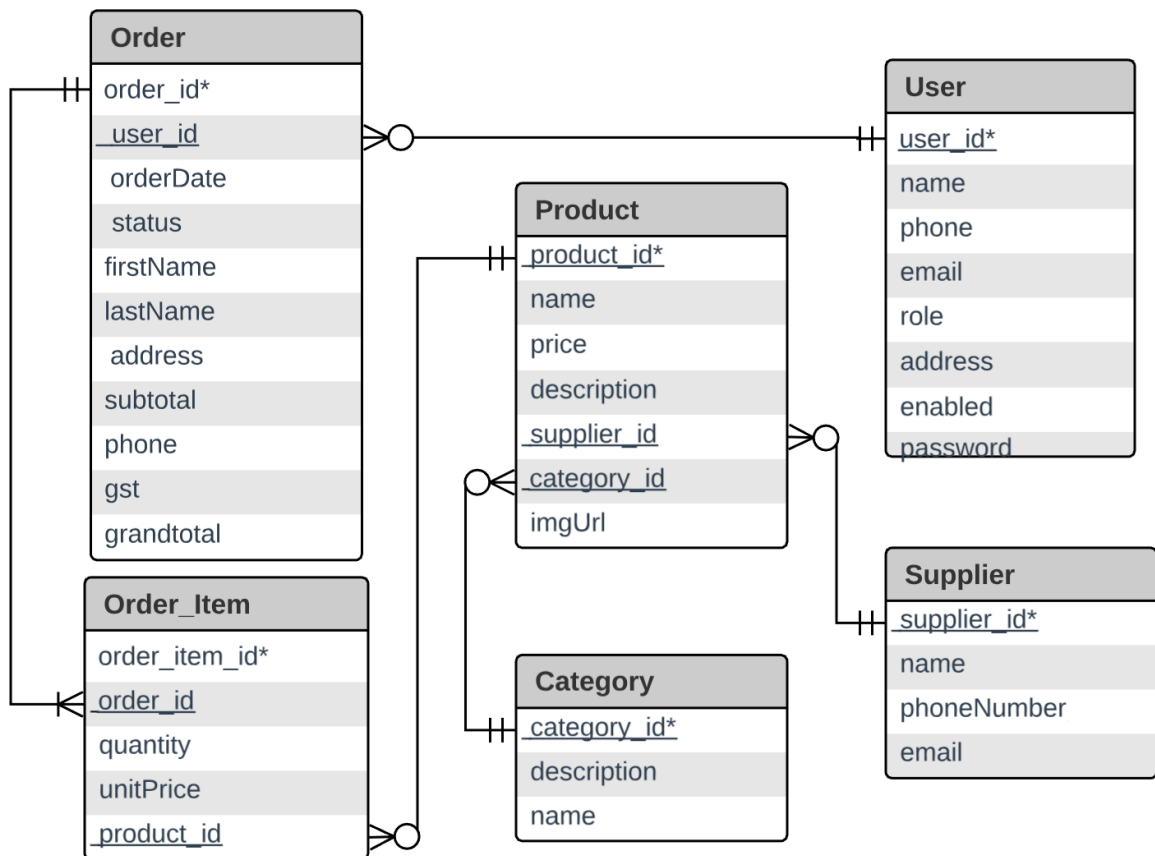
A product can have zero or many orderitems, but an order item can have one and only one product.

An order can have one to many order items, but one order item can only belong to one and only one order.

An user can have zero or many orders, but one order can only belong to one and only one user.



3.3 ERD diagram



4 Techniques

1. Code re-use and architecture

Shared Layout Page

Views -> layouts -> `app.blade.php` `footer.blade.php` `header.blade.php`

```

1. <div>
2.     @include('layouts.header')
3.     <main class="container-fluid">
4.         @yield('content')
5.     </main>
6.     @include('layouts.footer')
7. </div>
  
```

2. SQL DDL/DML code

DDL - Data Definition Language (CREATE , ALTER , DROP)

Example: `create` and `drop`

```

1.     public function up()
2.     {
3.         Schema::create('suppliers', function (Blueprint $table) {
4.             $table->increments('id');
5.             $table->timestamps();
6.             $table->string('name');
7.             $table->string('email');
8.             $table->string('phoneNumber');
9.         });
10.    }
11.    public function down()
12.    {
13.        Schema::dropIfExists('suppliers');
14.    }

```

DML - Data Manipulation Language (SELECT,INSERT,UPDATE,DELETE)

Example: `Update`

```

1.     UPDATE `qsouvenir`.`users` SET `email` = 'admin@gmail.com' WHERE (`id` = '1');

```

3. Error handling tested and demonstrated

Example:

Delete error handling

```

1.     try
2.     {
3.         Category::destroy($id);
4.     }
5.     catch(\Exception $exception)
6.     {
7.         //dd($exception);
8.         $errmsg = 'Cannot delete a category with products in it, wrong code ' . $exception->getCode();
9.         return Response::json(['errmsg'=>$errmsg]);
10.    }

```

4. Dynamic form controls populated with database data

Use bootstrap grid system

5. Session management demonstrated

Example:

Session for shopping cart

```

1.     public function getAddToCart(Request $request, $id)
2.     {
3.
4.         $product = Product::findOrFail($id);
5.         $oldCart = Session::has('cart') ? Session::get('cart') :
null;
6.         $cart = new Cart($oldCart);
7.         $cart->add($product, $product->id);
8.         //dd($request->session()->get('cart'));
9.         $request->session()->put('cart', $cart);
10.        return redirect()->back();
11.    }

```

6. Record information other than error message to a log file

Record when a customer makes a new order in a log file

```

1.     Log::info(Auth::user()->email.' Create the order');

```

storage -> logs -> laravel.log

[2018-11-09 22:15:56] local.INFO: azimeng@vip.qq.com Create the order

7. Data validation using JavaScript on client side

Validate email in register page

```

1.     <script>
2.         function validate_email(field)
3.         {
4.             with (field)
5.             {
6.                 apos=value.indexOf("@")
7.                 dotpos=value.lastIndexOf(".")
8.                 if (apos<1||dotpos-apos<2)
9.                     {alert("Wrong Email Format");return false}
10.                    else {return true}
11.            }
12.        }
13.    </script>

```


No.	Case	Input	Expected Outcomes	Actual Outcomes
2	Carousel test	Click left < button	Back to previous image	As expected
		Click left > button	Next slide will show	As expected
		Click any place to the picture	Link to products page	As expected
3	Navigation bar test	Click Home on the navigation bar	Link to Home page	As expected
		Click Products on the navigation bar	Link to product page	As expected
		Click About on the navigation bar	Link to about page	As expected
		Click Contact us on the navigation bar	Link to contact page	As expected
		Click Shoppong Cart on the top right area	A panel will display and show shopping cart	As expected
		Click Log in on the top right area	Link to Log in page	As expected
		Click Register on the top right area	Link to Register page	As expected
4	Onsale test	mouseover products	Buy now button will display	As expected
		Click Buy now	Link to this product detail page	As expected
5	Footer test	Click About us	Link to about page	As expected
		Click Maori Gifts	Link to Maori Gifts products page	As expected
		Click Mugs	Link to Mugs products page	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
		Click T-shirts	Link to T-Shirts products page	As expected
		Click Home & Living	Link to Home & Living products page	As expected
		Click Shipping	Link to contact page	As expected
		Click Payment	Link to contact page	As expected
		Click Contact us	Link to contact page	As expected

5.2 Products page

No.	Case	Input	Expected Outcomes	Actual Outcomes
1	-	-	Products page will show	
	-	-	Navigation and footer are displayed consistently	As expected
2	Under left category menu	Click All Souvenirs	All the souvenirs are displayed.	As expected
		Click Maori Gifts	Only products belong to Maori Gifts category will display	As expected
		Click Mugs	Only products belong to Mugs category will display	As expected
		Click T-shirts	Only products belong to T-shirts category will display	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
		Click 	Only products belong to  category will display	As expected
3	Products Area		Products will show 4*2	As expected
	-	Click products name	Link to Products details page	As expected
	-	Click Shopping Cart Plus icon	Products will be added to shopping cart	As expected
4	Search and Filter		Search inout box and name, price sorter will display	As expected
	Search by name	Enter 	Three products of coaster will show	As expected
	Search by price	Enter number  at left input box and Enter number  at right input box Click  Button	Only  product will show because it is price is \$9	As expected
	Pagination	Click on 	Show the next page product items	As expected
	Pagination	Click on 	Show the previous page product items	As expected
	Pagination	Click on 	Show specific number page of product items	As expected

5.3 Login page

No.	Case	Input	Expected Outcomes	Actual Outcomes
1		Click Log in in the navigation bar	Log in section will show in the Left area and a picture will show in the right area	As expected
			Navigation and footer are displayed consistently	As expected
2	Log in(Admin)	Enter email admin@email.com enter password 123456 Click Log in	Administrator will show in the navigation bar while Shopping cart will hide	As expected
		Click Administrator	Dropdown menu will show	As expected
	Log in(User)	Enter email member@email.com enter password 123456 and click Log in	My Profile will show on the right of the navigation bar	As expected
3		Click Log out	Logout the system and home page shows	As expected

5.4 Register page



No.	Case	Input	Expected Outcomes	Actual Outcomes
1			Register section will show in the Left area and a picture will show in the right area	As expected
			Navigation and footer are displayed consistently	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
2	Register with empty email address	Click on 	Error message "Please fill in this fields" is displayed.	As expected
2.1	Register with invalid email address	Click on 	Error message "Wrong email format" is displayed.	As expected
2.2	Register with existing email address	Click on 	Error message "The email has already been taken." is displayed.	As expected
2.3	Register with empty password	Click on 	Error message "Please fill in this fields" is displayed.	As expected
2.4	Register with invalid password	Click on 	Error message "The Password must be at least 8." is displayed.	As expected
2.5	Register with unmatched confirm password	Click on 	Error message "The password and confirmation password do not match" is displayed.	As expected
2.6	Register with empty name	Click on 	Error message "Please fill in this fields" is displayed.	As expected
2.7	Register with phone number	Click on 	Error message "Please fill in this fields" is displayed.	As expected
2.8	Register with empty address	Click on 	Error message "Please fill in this fields" is displayed.	As expected



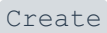
No.	Case	Input	Expected Outcomes	Actual Outcomes
3	Register with all valid information	Enter information below: Email : azimeng@mail.com Username: azimeng Phone Number: 0271234567 Address: Auckland Password : 12345678 Confirm Password : 12345678 Click Register	Register successfully	As expected

5.5 User page

No.	Case	Input	Expected Outcomes	Actual Outcomes
1	Log in to the system with valid user email and password	Click Log in on the right of the navigation bar	Display Log in page	As expected
		Input valid registered customer email and password and click Log in button	Log in successfully. My Account will display in the right part of navigation bar	As expected
		Click My Account	Dropdown menu will show.	As expected
	View Profile	Click Profile	User's profile will show	As expected
	View Orders	Click Orders	All the orders for this customer will be listed.	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
	View Order Details	Choose one current order Click 	Each order details will be displayed.	As expected
2	Log out	Click 	Log out successfully and back to home page	As expected

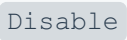

5.6 Administrator page

No.	Case	Input	Expected Outcomes	Actual Outcomes
-		Administrator log in	The Administrator dropdown menu will show in the navigation	As expected
1	Souvenir Management	Click  Under Administrator menu	Link to products manage page	As expected
1.1	Add a new product	In product index page, click  button	Link to create products page	As expected
		<p>Enter the following information: Name: A New Souvenir Price: 100 Description: this is a new souvenir Supplier Name: Ajay Kumar Category Name: Maori Gifts</p> <p>Choose a image in local computer Click </p>	In the product detail page, new product can be seen:	As expected


No.	Case	Input	Expected Outcomes	Actual Outcomes
		In user product list page, type new souvenir in search box	New products occur in the result	As expected
	Delete a product included in an existing order	Choose the first product. Click Delete in the end of the row	Link to delete confirm box	As expected
		In the delete confirm box, click 'delete' button	The new item has been delete and images are also deleted in the folder	As expected
		In product list page, look for the first product info	Cannot be found at the list	As expected
1.2	Delete a product with no order included	Choose the first product. Click Delete in the end of the row	Link to delete confirm page	As expected
		In the delete confirm page, click 'delete' button	Link to error message page "Cannot delete a product in order, wrong code 23000"	As expected
2	Category Management	Click Category Under Administrator menu	Link to Category manage page	As expected
2.1	Add Category	In Category index page, click Add New button	Link to create Category page	As expected
		Enter the following information: Name: Birthday Gifts Description: this is a new Supplier Click Create	In the Category detail page, new Category can be seen	As expected




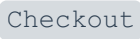
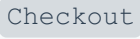
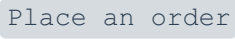
No.	Case	Input	Expected Outcomes	Actual Outcomes
2.2	Edit Category	Choose the Mugs Category Click Edit in the end of the row	Link to Category details page	As expected
		Make changes like below: Name: NZ Mugs Description: Beautiful mugs Click Save	Each information has been changed, and displays in the cat index page	As expected
2.3	Delete Category with no products in it	Choose the Test Category . Click Delete in the end of the row	Link to delete confirm page	As expected
		In the delete confirm page, click 'delete' button	The Category has been deleted.	As expected
3	Supplier Management	Click Supplier Under Administrator menu	Link to Supplier manage page	As expected
3.1	Add Supplier	In Supplier index page, click Create New button	Link to create Supplier page	As expected
		Enter the following information: Name: Muamu PhoneNumber: 02745678 Email: mumumu@email.com Click Create	In the Supplier detail page, new Supplier can be seen	As expected
3.2	Edit Supplier	Choose the Muamu Supplier. Click Edit in the end of the row	Link to Supplier details page	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
		Make changes like below: Name: Muamu PhoneNumber: 0271111111 Email: mumumu@email.com Click Save	Each information has been changed, and displays in the cat index page	As expected
3.3	Delete Supplier without products	Choose the Muamu Supplier . Click Delete in the end of the row	Link to delete confirm page	As expected
		In the delete confirm page, click 'delete' button	The Supplier has been deleted.	As expected
	Delete Supplier with products	Choose the Ajay Supplier . Click Delete in the end of the row	Link to delete confirm page	As expected
		In the delete confirm page, click 'delete' button	Link to error message page."Cannot delete a Supplier with products in it, wrong code 23000"	As expected
4	Order Management	Click Order Under Administrator menu	Link to Order manage page	As expected
4.1	Change order status	Click shipped	The order status will change to shipped	As expected
5	Member Management	Click Member Under Administrator menu	Link to Member manage page	As expected
5.1	Enable a disabled account	Click on Enable	A tick for the enable checkbox appears.	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
5.2	Disable a valid account	Click on 	No tick for the enable checkbox any more.	As expected
5.3	View an account details	Click on 	The account details are displayed.	As expected

5.7 Shopping Cart

No.	Case	Input	Expected Outcomes	Actual Outcomes
-	Guest or Log in as users.		The shopping cart dropdown box show in the navigation bar	As expected
1	Add an item to shopping cart	Select a target bag and click shopping cart icon	The Shopping Cart has one item and the product ID, image, name, quantity, price, subtotal, GST and grand total price are displayed in the shopping cart panel.	As expected
1.2	Add the same item to shopping cart	Select the same product and click shopping cart icon	The quantity for this product is increased to two, and the subtotal, GST and grand total is adjusted as well.	As expected
1.3	Increase a product quantity(quantity>1)	Click on  sign after the quantity of this product in shopping cart	The quantity has increased by 1.	

No.	Case	Input	Expected Outcomes	Actual Outcomes
1.4	Reduce a product quantity(quantity>1)	Click on  sign after the quantity of this product in shopping cart	The quantity has decreased by 1.	As expected
1.5	Remove a product from shopping cart (quantity=1)	Click on  sign after the quantity of this product in shopping cart	The item is removed from shopping cart.	As expected
2	Clear the shopping cart	Click on 	All the items are removed from the shopping cart.	As expected
3	Checkout	Click on 	The page is directed to Log in page for further purchase.	As expected
4	Place an order	Click on  in the shopping cart	The page is directed to Log in page for further purchase.	As expected
		Log in with valid account email and password	The member information is displayed for confirmation.	As expected
		Click on 	The order is successfully created.	As expected

5.8 Log pages

No.	Case	Input	Expected Outcomes	Actual Outcomes
1	Login information logs	Open the FileZilla log in your account Open Folder: php_assignment2/Storage/logs	Logs file is stored in the Folder	As expected

No.	Case	Input	Expected Outcomes	Actual Outcomes
	Open log file	Download and open the file	The end of the file storage show [2018-11-09 22:15:56] local.INFO: azimeng@vip.qq.com Create the order	As expected

5.9 Other pages

About page

No.	Case	Input	Expected Outcomes	Actual Outcomes
1	-	-	Introduction of the brand will show	As expected
2	-	-	Navigation and footer are displayed consistently	As expected
3	Scroll to bottom	Click Back to Home page	Link to home page	As expected

Contact us page

No.	Case	Input	Expected Outcomes	Actual Outcomes
1	-	-	Contact information will show. Shipping and payment description will show	As expected
2	-	-	Navigation and footer are displayed consistently	As expected

6 Critique

6.1 Comparison between PHP and ASP.NET Core

Fields	C# / ASP.NET Core	PHP / Laravel
Version	6.0 / 2.0	7.2.10 / 5.7
1. Database techniques	They both support SQL querying language, and have access to different type of databases.	They both support SQL querying language, and have access to different type of databases.
Database Frame	Entity Framework Core	Eloquent ORM
Querying	LINQ	Query Builder
Database server	<code>sqlserver</code> SQL Server is not open source, and can be only run on Microsoft Operating Systems	<code>mysql</code> MySQL is open source under GPL or Commercial License and can be run on multi Operating Systems
2. Code sharing and reuse	MVC Design Pattern is used,in MVC design pattern, codes are split to models, controllers and views, which can be easily reused.	MVC Design Pattern is used,in MVC design pattern, codes are split to models, controllers and views, which can be easily reused.
Layout	Use <code>_Layout.cshtml</code> as parent layout(header,footer,script), and use <code>@RenderBody</code> to get other sections	Defines shared section blade in layouts folder. <code>app.blade.php</code> is for basic html setting and source while <code>foot.blade.php</code> and <code>header.blade.php</code> only for specific section.
3. Client techniques	Both ASP.NET Core and PHP are server side techniques, which means the code is executed on the server, generating HTML which is then sent to the client. The client would receive the results of running that script, but would not know what the underlying code was.	Both ASP.NET Core and PHP are server side techniques, which means the code is executed on the server, generating HTML which is then sent to the client. The client would receive the results of running that script, but would not know what the underlying code was.

Fields	C# / ASP.NET Core	PHP / Laravel
Template	ASP.net core use razor templates,Razor templates in ASP.net core end with ".cshtml"	Lavarel use blade templates, end with ".blade.php" .
Syntaxes	C# codes can be included in razor templated	PHP codes can be included in blade templates.
4. Software architecture	Both of the assignment use MVC pattern.MVC separates the code into three layers. Model is the representation of all the data used, and the code required to make it persist. The Controller handles requests and updates the model. And lastly, View offers ways to extract and represent the data from the Model	Both of the assignment use MVC pattern.MVC separates the code into three layers. Model is the representation of all the data used, and the code required to make it persist. The Controller handles requests and updates the model. And lastly, View offers ways to extract and represent the data from the Model
	In the root file there are three folder Models, Views, Controllers where you can just put code in this seperate layers	In laravel, there is no specific folder for model but developers uaually put them under root of <code>App</code> , Views are under <code>resources</code> folder and Controllers are putting in <code>App\Http\Controller</code>

6.2 Preference

If you were given the choice for this assignment, which product would you use, and why?

If I were given the choice for this assignment, I will choose PHP with Lavarel framework.

For PHP/Laravel, one of the benefits is its open source and free to use. Also, it is environmently friendly which means it support cross platform and multi server. No matter OSX, Windows, Linux, it is easily to build an PHP project. As it is open source, another advantages is its community friendly, there are plenty of PHP/Laravel community where people share tutorials and answer questions, giving novice support fromdifferent aspects. Meanwhile, many

developers enjoy contribute themselves and develop a variety of plugins and libraries and these can be easily integrated into a project. The Crud generator packages used the in this project provides convenience and save much time.

For C#/Asp.net, it support by Microsoft, one of the biggest IT company and. So, it is very friendly for developers who are developing on Microsoft pltfom as Windows is still the most popular and leading the biggest market occupancy. In Asp.net, EntityFramework is very useful to ingrate with SQL Server database and visual studio provides an visualized panel where you can easily view the data in SQL. The scaffolding in asp.net is convenient and easily to generate a website demo very easily.

C# is a strongly-typed programming language while PHP is not a strongly-typed programming language, making PHP less safe than C#. However, PHP support cross platform and there are plenty of informations in the internet community. But for asp entity framework, the IDE visual studio and scaffolding are not free or cross platform.

That's the reason I will likely choose PHP as for this project.

7 References

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