2018

Documentation

ASSIGNMENT 1 – WEB APPLICATION DEVELOPMENT

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Preface

URL: http://dochyper.unitec.ac.nz/achars05/asp_assignment

Dochyper Folder: asp_assignment

Admin Login: admin@email.com / P@ssw0rd

Customer Login: jstarton12@gmail.com / P@ssw0rd

Type of Website: [Simple] Online Purchase Order System – Quality souvenirs.

Notes:

I have tried to setup dochyper for this assignment, but I wasn't able to get it working.

This application (tries to) follows the ContosoUniversity Tutorial covered during classes.

Preface

Contents

Business Specifications

Business Rules

The application has two users; Customer and Administrator.

1. Customer
   Customer can be differentiated into Guest (unregistered) and Member (registered). The following specifications are for both unless specified.

   1.1. Home page, Product page, About page and Contact page.
   There is a logo of the website which takes them to the home page.

   Both guests and logged in customers can view these pages. They can navigate to the corresponding category by clicking on the category on home page.

   They can view all the items on product page. Additionally, these products can be viewed by one category at a time by choosing one of category buttons in the same page. Each page displays products, if there are remaining entries then the rest will be displayed on the "Next" page.

   1.2. Add Item to Shopping Cart
   Both guests and logged in customers can add any available product to their shopping cart. Adding any product will increase the total products quantity displayed beside the shopping cart icon in the upper right navigation bar. Adding the same product will increase the quantity and total cost of that item in shopping cart.

   1.3. Remove Item from Shopping Cart
   Both guests and logged in customers can remove items from their shopping cart by clicking the "x" sign in shopping cart view. After clicking, the quantity will reduce by 1 (original quantity > 1) or the item will get removed from the shopping cart (original quantity = 1).

   1.4. Check Out
   When Proceed to Checkout button is clicked, if user is not logged in, the login page will be displayed. If user is not registered yet, they can click the register link login page.

   1.5. Empty Cart

   When the clear button is clicked, all the items in the shopping cart before checking out should be cleaned.

   1.6. Place an Order
   Only registered customers can place an order by clicking the "checkout" button on the shopping cart view. After that they will be asked to confirm their order information and then complete the order process. They can view their order details in the end.

1.7. Registration

A guest can register to be a member.

A guest must supply a valid first name, a valid last name, a password, a valid email address, a valid mobile number and a valid physical address for registration.

After registration information is validated, a confirmation email will be sent out to customer's registration email, in which there is a link used to click to confirm and complete registration. This link also leads customer to the website for login.

1.8. Login

To be able to log in, a customer must complete registration first, including email confirmation. Customer must provide correct email and password to log in.

1.9. View Account

After a customer logged in, they can see their personal details by clicking their name (link) upper right navigation bar. In the details page, they can see their orders as well.

2. Administrator

    The administrator has permission to access all the anonymous visitors and registered customers functions. The administrator can do any shopping activities, which can facilitate the testing process.

    2.1. Log in
           With embedded username and password, administrator can log in.

    2.2. View Information
           After logging in, administrator will see all the information for all customers, existing orders, products, categories and suppliers.

    2.3. Add Information
           After logging in, administrator will be able to add an item, product category and supplier by providing required and eligible input.

    2.4. Modify Information
           After logging in, administrator will be able to edit all product information including product image, profile details of customers and suppliers, and category.

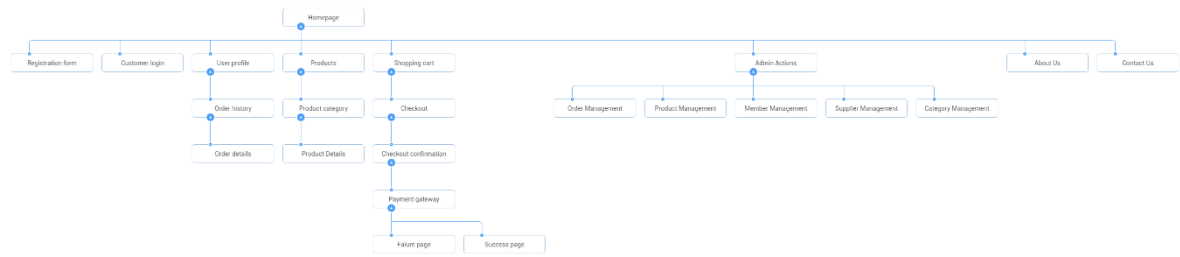   2.5. Delete Information
           After logging in, administrator will be able to delete a customer, item, product category, supplier and order with a user interface for each.

    2.6. Disable Account
           After logging in, administrator will be able to disable any customer by clicking Disable button in index page of customer.

User Interface Design

Sitemap

Homepage

Registration form | Customer login | User profile | Products | Shopping cart | Admin Actions | About Us | Contact Us

Order history | Product category | Checkout | Order Management | Product Management | Member Management | Supplier Management | Category Management

Order details | Product Details | Checkout confirmation

Payment gateway

Failure page | Success page

23 October 2018

Full resolution image is also included.

Wireframe

Edit Link:

https://creately.com/diagram/jkutqni71/xbdYhWppiMIUUIdkCMxVy3OXg%3D

https://creately.com/diagram/jkutqni72/LuDYBs58psi5SHJPhHhsGu4EcQ%3D

View Link:

https://creately.com/diagram/jkutqni71/Ptz1H0YTX2Gz9UGKeyiGDKevxeo%3D

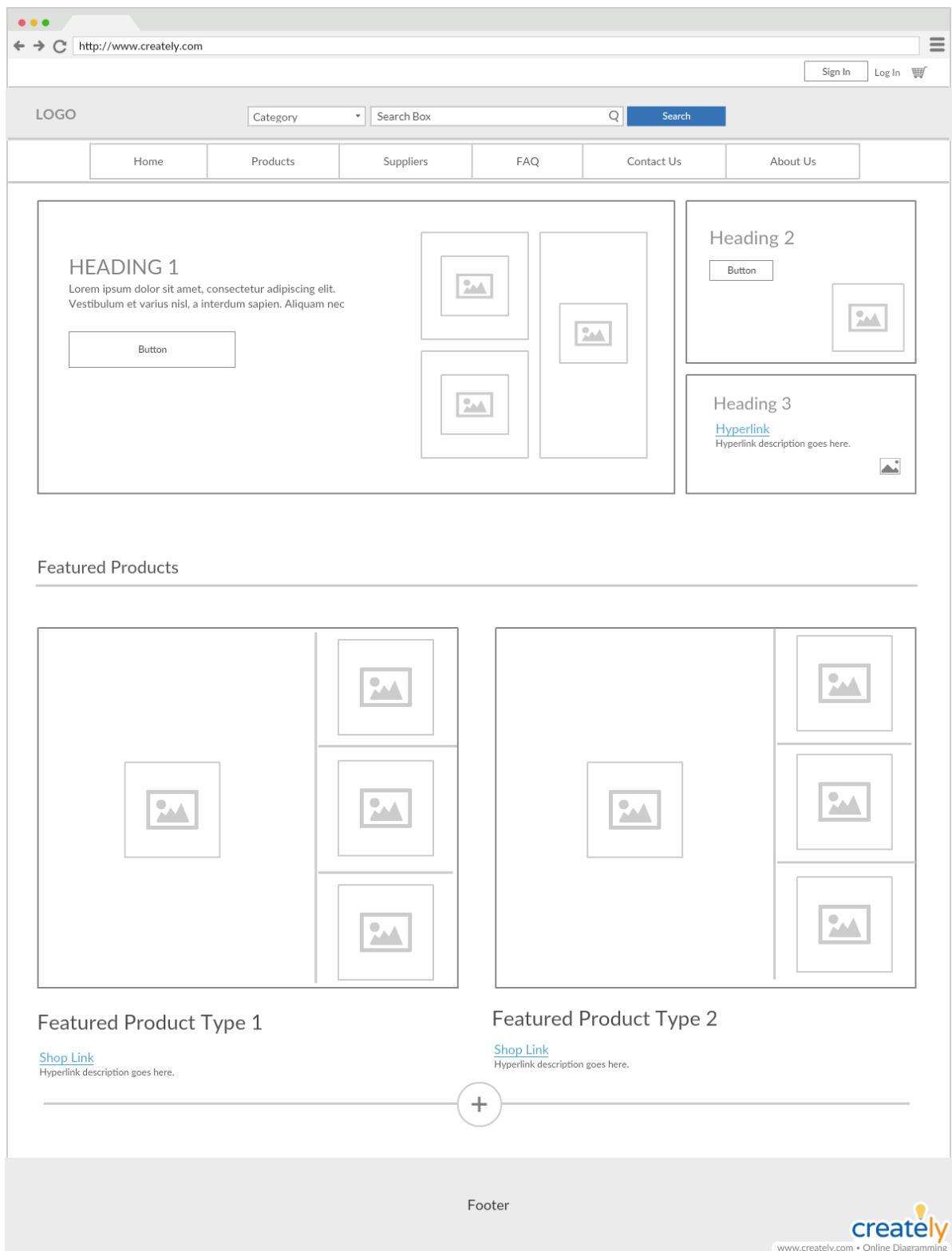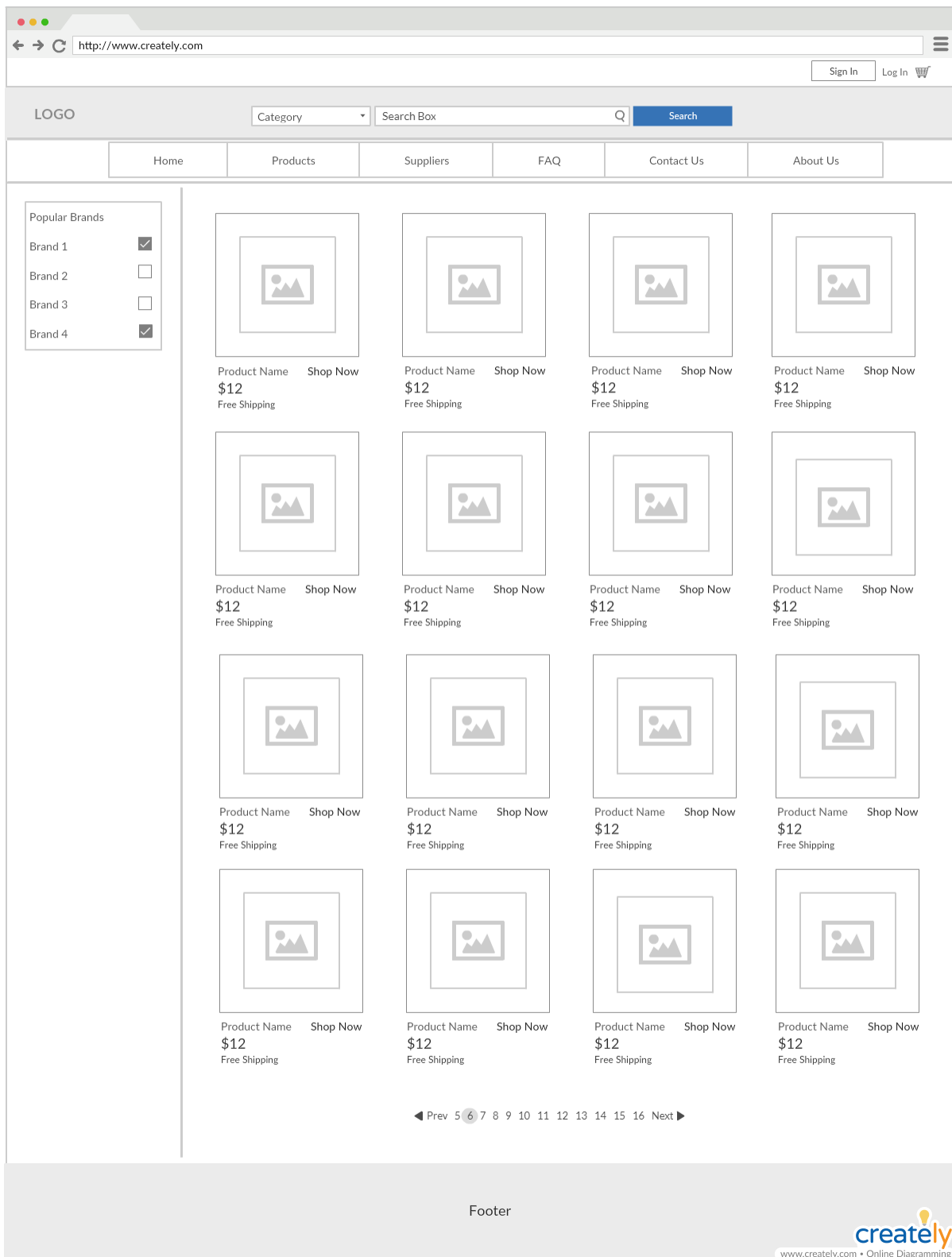https://creately.com/diagram/jkutqni72/IIRaL5FErBM3eLyQywFeVvnJgU%3D

The following designs are not final and the submitted website may not reflect these designs.

Initial Home Page

Initial Products Page

Browser address bar: http://www.creately.com

Sign In   Log In

LOGO

Category ▾   Search Box 🔍   Search

| Home | Products | Suppliers | FAQ | Contact Us | About Us |

Popular Brands
- Brand 1 ☑
- Brand 2 ☐
- Brand 3 ☐
- Brand 4 ☑

Product Name   Shop Now
$12
Free Shipping

Product Name   Shop Now
$12
Free Shipping

Product Name   Shop Now
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Product Name   Shop Now
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Free Shipping

◀ Prev 5 6 7 8 9 10 11 12 13 14 15 16 Next ▶

Footer

creately
www.creately.com • Online Diagramming

Login/Register Page

Log in	Register

First Name | Textfield | Lats Name | Textfield |

E mail Address | Textfield |

Password | Textfield |

☑ Agreement

Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis

Sign In

Database Design

Tables

- Products
- Suppliers
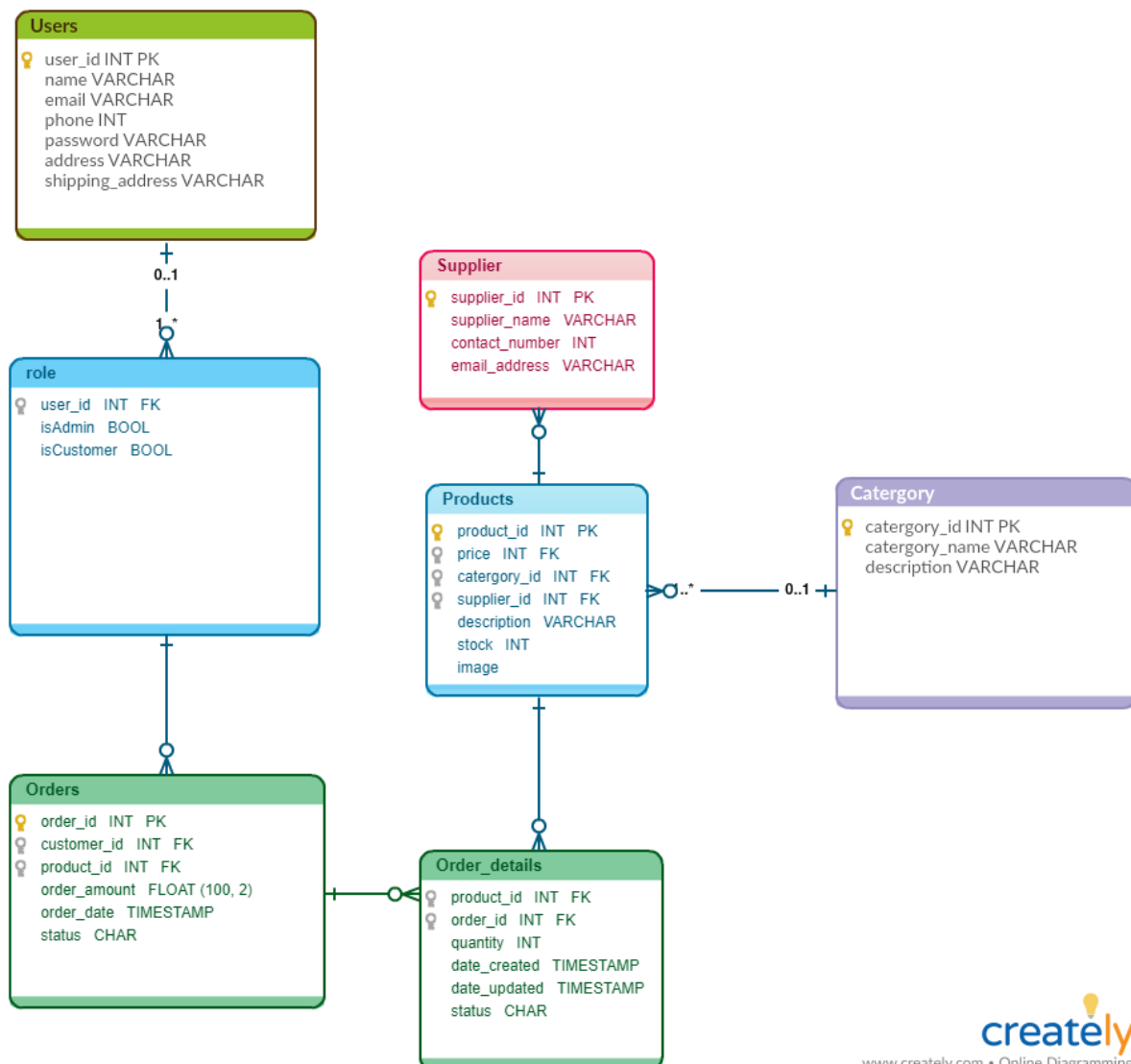- Users
- Orders
- Order Details
- Categories
- Role

Note: Need a better way to distinguish between Admin and Customers.

ERD

Made on Creately

Edit Link: https://creately.com/diagram/jkuz415f1/HWIfPBmHA9KBtdQDCSdHBl7cRaQ%3D

View Link: https://creately.com/diagram/jkuz415f1/9QYLSwdXxzIrqDwuHbXRh5lQCbE%3D

System Design Rationale

Techniques

Client-side

- HTML 5 used for structuring and presenting content.
- CSS to describes how HTML elements are to be displayed.
- JavaScript to manipulate data.
- AJAX to communicate with server to request, update, receive and send data.
- Bootstrap an open-source frontend framework for designing websites/web applications. Contains HTML and CSS based design templates.
- Html helper is a class to create HTML code programmatically and used in View to display HTML Content.
- Tag helpers used in MVC to improve readability of razor code.

Server-side

- ASP.NET Core is a cross-platform, high-performance, open-source framework for building modern, cloud-based, Internet-connected applications.
- Entity Framework (EF) is an object-relational mapper that enables .NET developers to work with relational data using domain-specific objects. It eliminates the need for most of the data-access code that developers usually need to write.
- ASP.NET MVC is a web application framework developed by Microsoft, which implements the model–view–controller (MVC) pattern
- ASP.NET Scaffolding is a code generation framework for ASP.NET Web applications.
- Razor for embedding server-based code into web pages, it's a general-purpose templating engine that can generate output like HTML.

Test Plan

Requirement to Test	Test Data Input	Expected Output	Actual Output
Logo display on Page	Click Home, and wait for page to load	Logo is loaded and when clicked redirects to Home.	As Expected
Navigation Bar Testing	Click "Contact Us"	Links to Contact page	As Expected
	Click "About Us"	Links to About Page	As Expected
	Click "Home"	Links to Home Page	As Expected
	Click "Products"	Links to Products Page	As Expected
	Click "Login"	Links to Login Page	As Expected
	Click "Register"	Links to Register Page	As Expected
Carousel Testing	Images change automatically	Images Change	As Expected
	Click Left arrow	Goes to previous image	As Expected
	Click Right arrow	Goes to next image	As Expected
Quick Link Buttons (Home Page)	Click "More Maori Gifts"	Goes to Maori Gifts category	As Expected
	Click "More T-Shirts"	Goes to T-Shirts category	As Expected
	Click "More Mugs"	Goes to Mugs category	As Expected
	Click "More Pins"	Goes to Pins category	As Expected
About Page	-	About us information is shown correctly.	
Contact Page	-	Contact information is shown correctly	
Registration			
Register with empty email address	Click on "Register" button	Error message "The Email field is required" is displayed.	As Expected
Register with invalid email address	Click on "Register" button	Error message "The Email field is not a valid e-mail address" is displayed.	As Expected
Register with existing email address	Click on "Register" button	Error message "User name is already taken" is displayed.	As Expected
Register with empty password	Click on "Register" button	Error message "The Password field is required" is displayed.	As Expected
Register with invalid password	Click on "Register" button	Error message "The Password must be at least 6 and at max 100 characters long" is displayed.	As Expected
Register with unmatched confirm password	Click on "Register" button	Error message "The password and confirmation password do not match" is displayed.	As Expected
Register with empty last name	Click on "Register" button	Error message "The Last Name field is required" is displayed.	As Expected

Register with invalid last name	Click on "Register" button	Error message "Please make sure your last name starts with a capital letter" is displayed.	As Expected
Register with empty first name	Click on "Register" button	Error message "The First Name field is required" is displayed.	As Expected
Register with invalid first name	Click on "Register" button	Error message "Please make sure your first name starts with a capital letter" is displayed.	As Expected
Register with empty mobile phone number	Click on "Register" button	Error message "The Mobile Phone Number field is required" is displayed.	As Expected
Register with empty address	Click on "Register" button	Error message "The Address field is required" is displayed.	As Expected
Register with invalid address	Click on "Register" button	Error message "The Address must be at least 6 and at max 100 characters long" is displayed.	As Expected
Register with empty home phone number and work phone number, and all valid other fields	Click on "Register" button	Register successfully. Message "To login, please check your inbox (or spam) for a confirmation email" is displayed.	As Expected
	Check the email inbox, and confirm the account	Account is confirmed. Message "Thank you for confirming your email. Please Click here to Log in" is displayed.	Confirmation Email is either not sent/ or receivable.
Login			
Log in to the system with empty email and password	Click "Log in" on the right of the navigation bar Click "Log in" button	Display Log in page The Log in is prevented. Display error messages "The Email field is required." and "The Password field is required."	As Expected
Log in to the system with invalid email and password	Click "Log in" on the right of the navigation bar Input an invalid email with password and click "Log in" button	Display Log in page The Log in is prevented. Display error message "Invalid login attempt.".	As Expected
Log in to the system with valid administrator email and	Click "Log in" on the right of the navigation bar Input valid registered	Display Log in page Log in successfully. Admin dropdown menu is displayed.	As Expected

password	customer email and password and click "Log in" button	"Hello, Admin!" is displayed on the right navigation.	
	Click on the dropdown menu	The administrator can view and manage Product, Orders, Category and Members	As Expected
	Click on the welcome message	The administrator can view the account settings, profile information and order details.	As Expected
	Click on the "view your orders"	All the orders for this customer will be listed.	
	Click on "Details"	Each order details will be displayed.	
Log in to the system with valid customer email and password	Click "Log in" on the right of the navigation bar Input valid registered customer email and password and click "Log in" button	Display Log in page Log in successfully. "Hello, (First Name)!" is displayed on the right navigation.	As Expected
	Click on the welcome message	The customer can view the account settings, profile information and order details.	As Expected (except for Order which I was unable to test)
	Click on the "view your orders"	All the orders for this customer will be listed.	Unable to Test
	Click on "Details"	Each order details will be displayed.	Unable to Test
Shopping Cart			
Add an item to shopping cart	Select a target bag and click "Add to cart"	The Shopping Cart has one item and the product ID, name, category, unit price, quantity, subtotal, GST and grand total price are displayed in the shopping cart.	NullReferenceException: Object reference not set to an instance of an object. Wasn't able to solve it, and followed the tutorial (on moodle) as best I could.
Add the same item to shopping cart	Select the same item and click "Add to cart"	The quantity for this product is increased to two, and the subtotal, GST and grand total is adjusted as well.	Unable to Test due to error above.
Reduce a product quantity(quantity >1)	Click on "x" sign after the quantity of this product in shopping cart	The quantity has decreased by 1.	Unable to Test due to error above.
Remove a	Click on "x" sign after	The item is removed from	Unable to Test

product from shopping cart (quantity=1)	the quantity of this product in shopping cart	shopping cart.	due to error above.
Clear the shopping cart	Click on "Clear Cart"	All the items are removed from the shopping cart.	Unable to Test due to error above.
Checkout	Click on "Checkout"	The page is directed to Log in page for further purchase.	Unable to Test due to error above.
Place an order	Click on "Checkout" in the shopping cart	The page is directed to Log in page for further purchase.	Unable to Test due to error above.
	Log in with valid account email and password	The member information is displayed for confirmation.	Unable to Test due to error above.
	Click on "Place an order"	The order is successfully created. All the order details are displayed.	Unable to Test due to error above.
Category Management			
View categories	Click "Admin" dropdown menu and select "Category management"	All the categories are displayed.	As Expected
Create a new category	Click on "Create new". Enter the name field with valid category. Click on "Create"	New category is created, and the page is redirected to category management page.	As Expected
Edit an existing category	Select a category and click on "Edit". Change to a new category and click on "Save".	Category is changed, and the page is redirected to category management page.	As Expected
Check category details	Select a category and click on "Details".	The category and all the products in this category are displayed.	As Expected
Delete a category without any items	Select a category and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The category is deleted.	As Expected
Delete a category with existing items	Select a category and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The deletion is prevented. Error message "The Category being deleted contains at least one item. Delete those items before trying again" is displayed.	Category and Items are both deleted.

Supplier Management			
View suppliers	Click "Admin" dropdown menu and select "Supplier management"	All the suppliers are displayed.	As Expected
Create a new supplier	Click on "Create new". Enter the required fields with empty information. Click on "Create"	The creation is prevented. Error messages "The Name field is required", "The Email Address field is required", and "The Mobile Phone Number field is required" are displayed.	As Expected
Create a new supplier	Click on "Create new". Enter the required fields with valid information. Click on "Create"	New supplier is created, and the page is redirected to supplier management page.	As Expected
Edit an existing supplier	Select a supplier and click on "Edit". Change the name of the supplier and click on "Save".	Supplier is changed, and the page is redirected to supplier management page.	As Expected
Check supplier details	Select a supplier and click on "Details".	The supplier information is displayed.	As Expected
Delete a supplier without any items	Select a supplier and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The supplier is deleted.	As Expected
Delete a supplier with at least one product	Select a supplier and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The deletion is prevented. Error message "The Supplier being deleted contains at least one item. Delete those items before trying again" is displayed.	Supplier and Items are both deleted.
Product Management			
View products	Click "Admin" dropdown menu and select "Product management"	All the products are displayed.	As Expected
Create a new product	Click on "Create new". Enter the required fields with empty information. Click on "Create"	The creation is prevented. Error messages "The Name field is required", "The CategoryID field is required", "The Price field	As Expected

		is required", "The Description field is required", and "The SupplierID field is required" are displayed.	
Create a new product	Click on "Create new". Enter the required fields with valid information. Click on "Create"	New product is created, and the page is redirected to product management page.	
Edit an existing item	Select a product and click on "Edit". Change the name of the product and click on "Save".	Product is changed, and the page is redirected to product management page.	As Expected
Check product details	Select a product and click on "Details".	The product information is displayed.	As Expected
Delete an item without any orders	Select a product and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The product is deleted.	As Expected
Delete a product with at least one order	Select a product and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	As Expected
	Click on "Delete" to confirm.	The deletion is prevented. Error message "The product being deleted has been used in previous orders. Delete those orders before trying again." is displayed.	Unable to test due to error (explained in Cart Testing)
Order Management			
View orders	Click "Admin" dropdown menu and select "Order management"	All the orders are displayed.	Unable to Test, though expect it to work similarly to product or category.
Check order details	Select an order and click on "Details".	The order details are displayed.	Unable to Test, though expect it to work similarly to product or category.
Delete an order	Select an order and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	Unable to Test, though expect it to work similarly to product or category.
	Click on "Delete" to confirm.	The order is deleted.	Unable to Test, though expect it

			to work similarly to product or category.
Account Management			
View member accounts	Click "Admin" dropdown menu and select "Account management"	All member accounts are displayed.	As Expected
Enable a disabled account	Click on "Enable"	A tick for the enable checkbox appears.	As Expected
Disable a valid account	Click on "Disable"	No tick for the enable checkbox any more.	As Expected
Edit an account	Click on "Edit" and change the first name to another valid first name	The member account is changed, and the page is redirected to Account management page.	Unable to Edit due to a 404 error, where it doesn't seem to able to find the user via id.
View an account detail	Click on "Details"	The account details are displayed.	Unable to Edit due to a 404 error, where it doesn't seem to able to find the user via id.
Delete an account without orders	Select an account and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	Unable to Edit due to a 404 error, where it doesn't seem to able to find the user via id.
	Click on "Delete" to confirm.	The account is deleted.	Unable to Edit due to a 404 error, where it doesn't seem to able to find the user via id.
Delete an account with at least an order	Select an account and click on "Delete".	Message "Are you sure you want to delete this?" is displayed.	Unable to Edit due to a 404 error, where it doesn't seem to able to find the user via id.