

TITLE: E-COMMERCE WEBSITE FOR ONLINE SHOPPING

BY GROUP-GH

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SHOPPING

E-commerce has become one of the most popular methods of making money online and an attractive opportunity for investors. ‘**E-commerce**’ and ‘**online shopping**’ are often used interchangeably but at its core e-commerce is much broader than this – it embodies a concept for doing business online, incorporating a multitude of different services e.g. making online payments, booking flights etc. The power of e-commerce should not be underestimated as it continues to pervade everyday life and present significant opportunity for small, medium and large businesses and online investors. You don’t need to look far to see the potential of e-commerce businesses. Amazon, for example, which set the standard for customer-orientated websites as well as a lean supply chain, has been seen to sell in excess of 426 items per second.

Outline

➤ **Architecture Section**

- A. To provide detailed definition of the E-commerce website components.
- B. To discuss the CVS Architecture.
- C. To discuss the CO Architecture.
- D. To discuss the Use Case Diagrams.
- E. To elaborate on the Data flows Diagrams.

➤ **Process Section**

- A. Risk To Successful Completion
- B. Project Scheduling
- C. Team Structure
- D. Documentation Plan
- E. Coding Style Guidelines

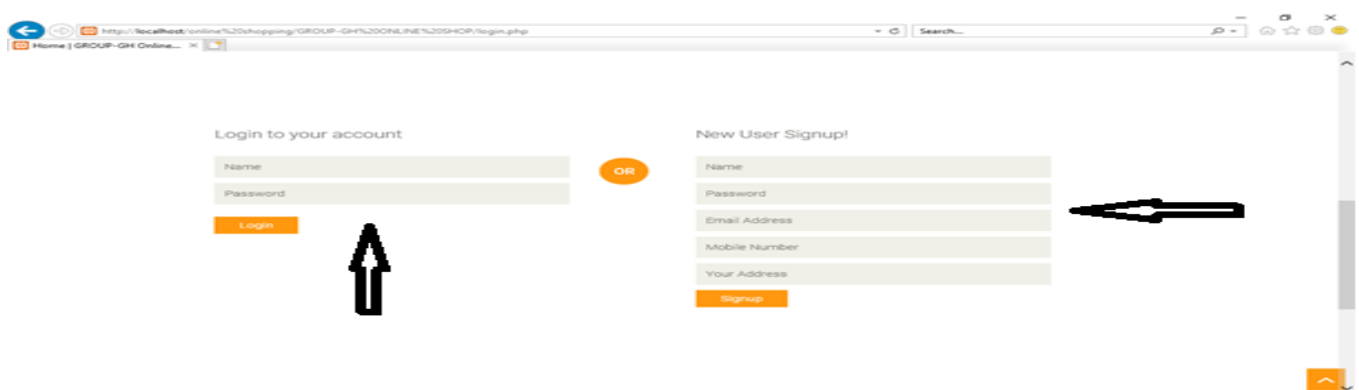
❖ Architecture Section

➤ E-COMMERCE WEBSITE COMPONENTS

The e-commerce website by GROUP-GH contain some major and key components discussed below;

A. Guest User Sign Up

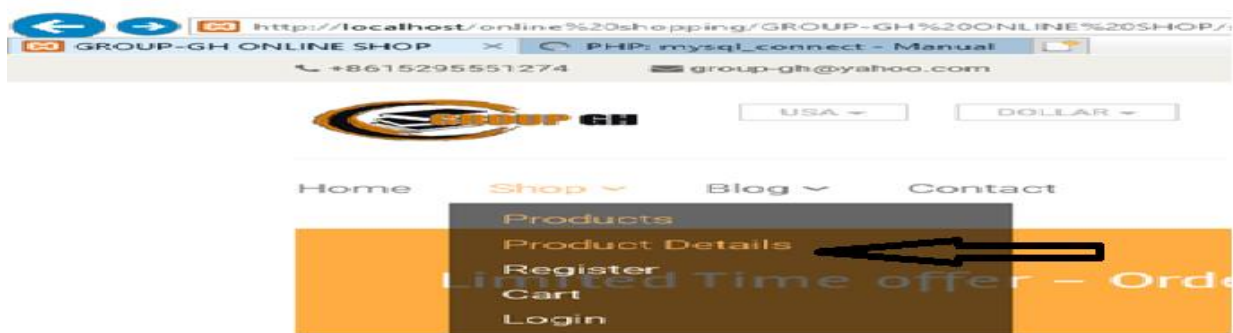
Customers can easily register and create new accounts as new users. Old users can log in to their account at any moment to purchase products.



The screenshot shows a web browser window with the URL `http://localhost/online%20shopping/GROUP-GH%20ONLINE%20SHOP/login.php`. The page has two main sections: "Login to your account" and "New User Signup!". The login section has fields for "Name" and "Password" with a "Login" button below. The sign-up section has fields for "Name", "Password", "Email Address", "Mobile Number", and "Your Address" with a "Signup" button below. An orange circle with the text "OR" is positioned between the two sections. A black arrow points to the "Login" button, and another black arrow points to the "Signup" button.

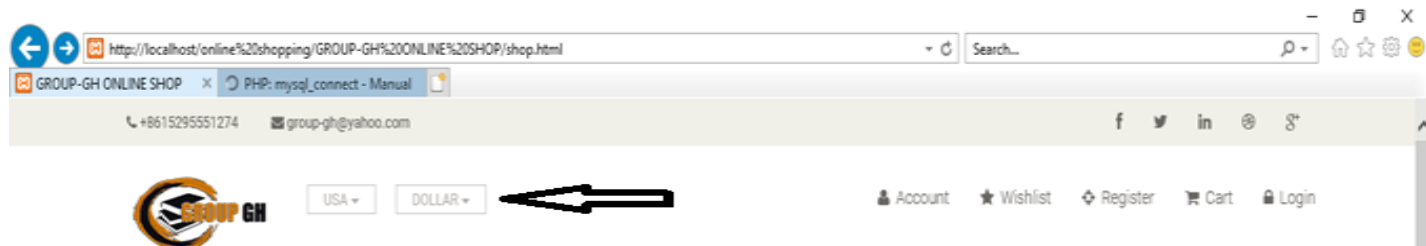
B. Detailed Description Of Product

This may sound obvious, but clear and accurate descriptions about your products are important to help buyers make the decision to purchase. Your descriptions act like your store's sales staff so it needs to be informative and the right tone for your target.



C. Us Dollar Business Transaction

E-commerce is defined as the buying and selling of products or services exclusively through electronic channels like credit card payment and the most currency used as means of transaction is the US dollar.



D. Good Photo Quality

Product photography is one of the most important aspect of your ecommerce site. This is what helps your user to like and buy your product. It is often the first experience of your product, so it's better to make it count.



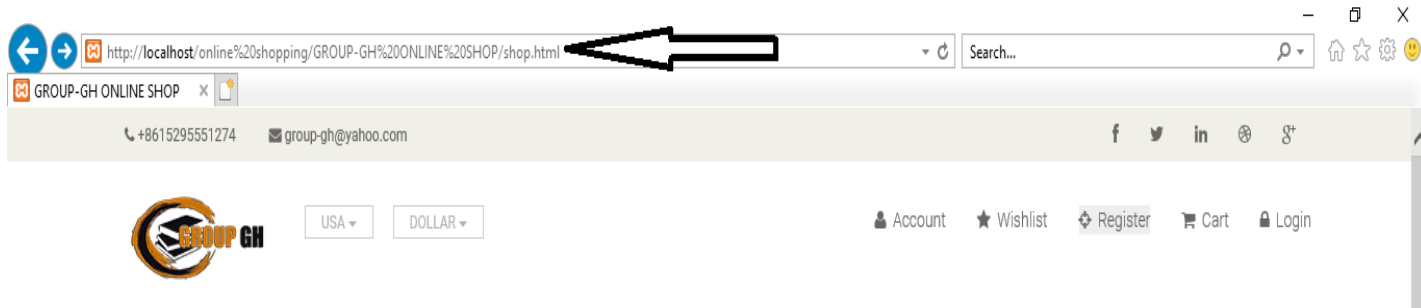
E. Online Slider Promotion

It's used primarily to promote campaigns such as sales and purchasing opportunities that would otherwise have to be searched for or discovered by chance. Capturing your site viewer's attention for long enough for them to interact with your content has become more challenging. This is why design trends like online slider have should be implemented.



F. Host Server

WAMP or XAMP are the host servers used to display the page and view of the website. Is used to host the whole project on a normal laptop as a server. It make it possible to see the user interface.



➤ CVS AND CO ARCHITECTURE DESIGN

Specifically, the e-commerce website can store seller's information of goods and products to be marketed. It can also store user or customer details to the server. A database system is connected to the website. Any information like credit card information, customer's personal details inputted at the website is automatically saved into the database for query next time.

The E-commerce website by GROUP-GH also uses the customer vendor-server architecture (CVS architecture). In the simplest case, a customer-server and seller-server system consists of a server system and (one or more) customers and sellers trying to access information stored in the database system connected.

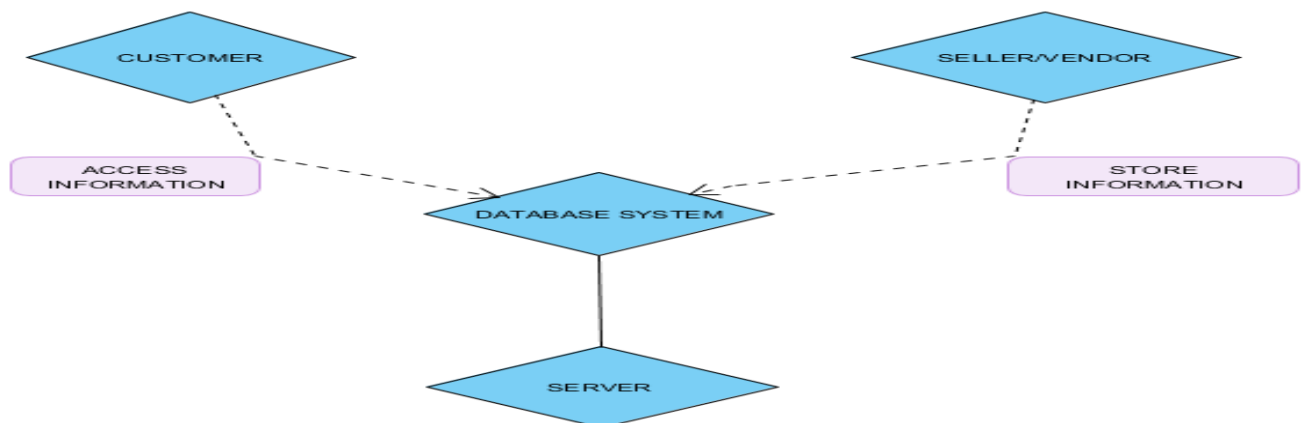


Figure 1.1 CVS Architecture

The e-commerce website by GROUP-GH designed an architecture for easy customer ordering of goods and products called the Customer Ordering (CO) Architecture. An order can be made through the telephone but preferably online ordering is considered.

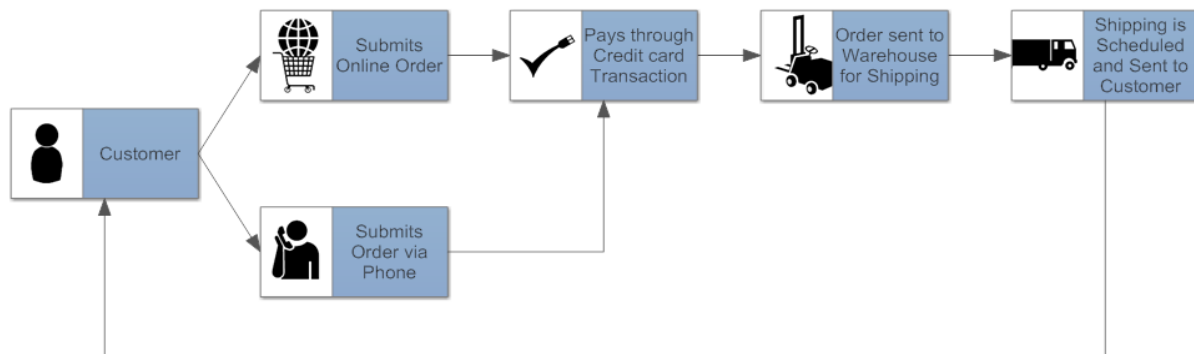


Figure 1.2 CO Architecture

➤ USE CASE DIAGRAMS

Referring from the Use Case used in the software requirement specification, customer may search for items, browse, view items recommended for him/her, and add items to shopping cart. Comparing the figures below with matches as the customer or user is connected to the account created and payment system to order and shop online.

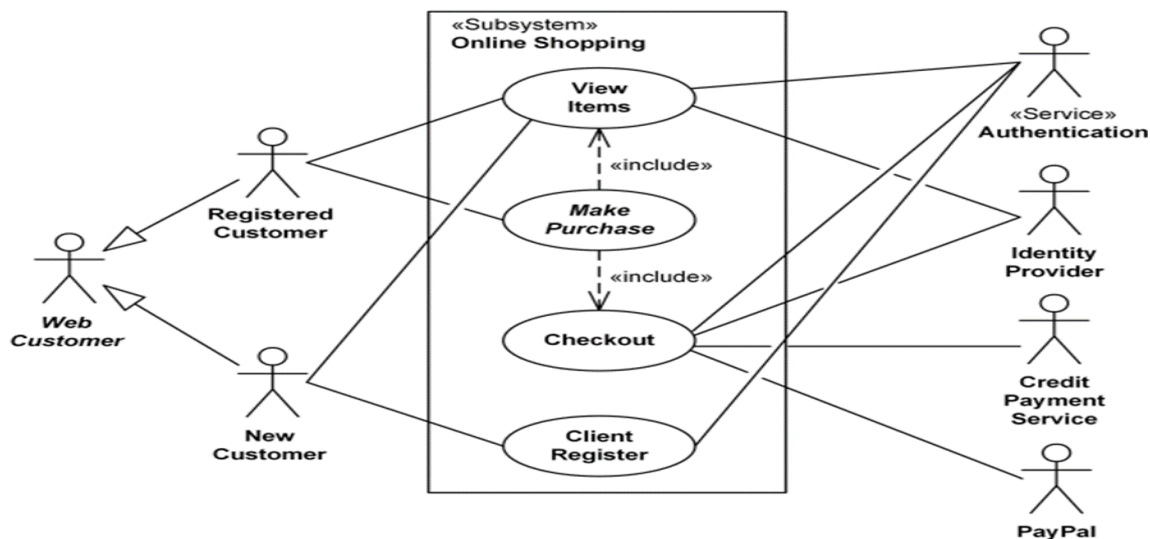


Figure1.3 Use Case Diagram 1.

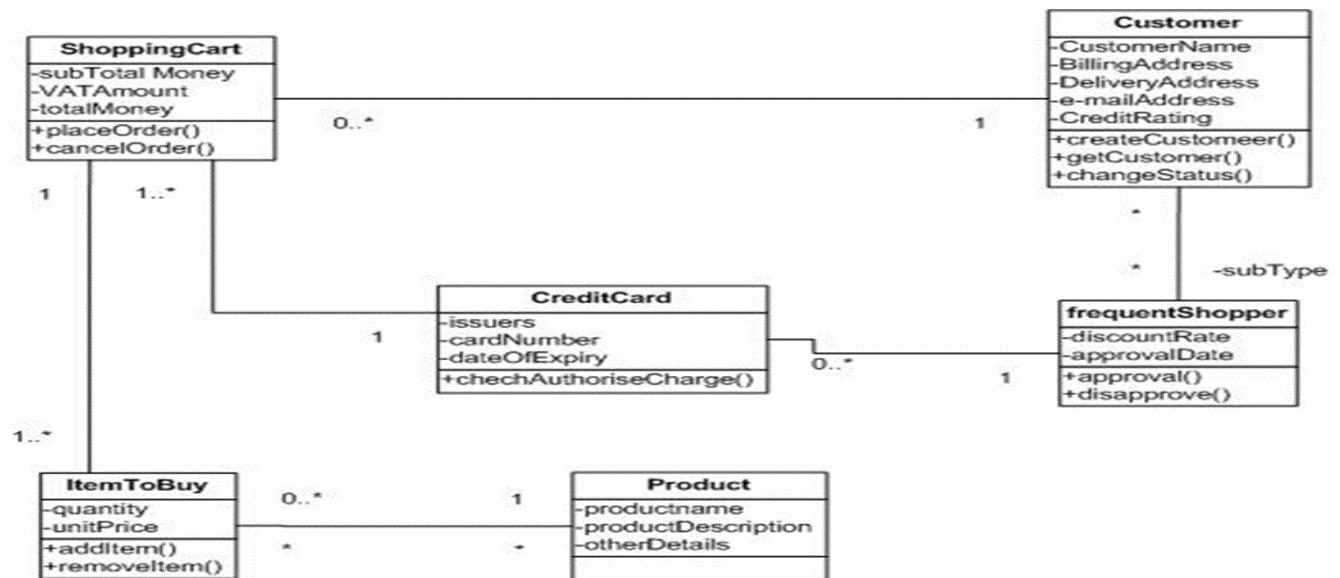


Figure 1.4 Use Case Diagram 2

Object oriented programming was used particularly to show the classes of the system, their relationships, attributes and operation of the classes.

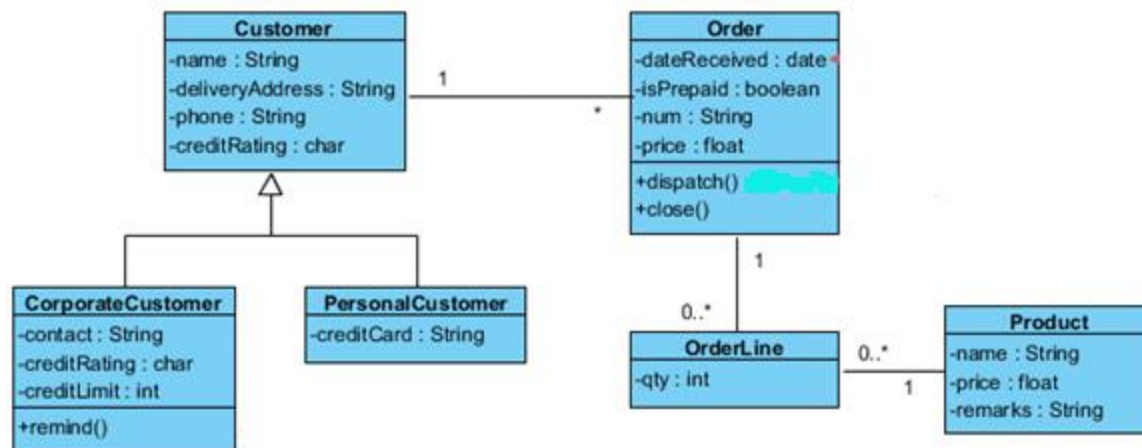


Figure 1.5 Class diagram for E-Commerce

➤ DATA FLOW DIAGRAMS

With the help of the design of a database for the GROUP-GH project, a dataflow model representing the set of activities each of which carries out some data transformation. It shows how the input to the process such as specifications is transformed to an output as a design. They represent transformations carried out by people and computers.



Figure 1.6 Data Flow for Payment



Figure 1.7 Data Flow for Add to Cart

❖ Process Section

➤ RISK TO SUCCESSFUL COMPLETION

The top five risks to successful completion of the GROUP-GH e-commerce website are discussed below;

A. Online Security Threats

Its likelihood of happening is very and its impact is also high. Numerous broadcasted news online about database of an e-commerce website being compromised shows evidence. The group planned to implement a good intrusion detection system to filter information and cryptography for password encryption through network security to solve this such situation.

B. Privacy Issues and Threats

Customers' personal data could be compromised and used for spamming, identity theft and unsolicited marketing. Its likelihood of happening is low and its impact is also low. In addition to the online security threats measures previously mentioned, customers will be required to create and use strong passwords.

C. Performance

A stable and a reliable e-commerce environment is a very crucial key factor for success in e-commerce. If a site is not to respond or is not responding in a reasonable and acceptable amount of time or if it makes the browser keep freezing, the visit on the site will cause an unwanted effect, causing visitors to leave and maybe not come back again. Its likelihood of happening is low and its impact is also low. Latency is implemented to solve this problem.

D. System Reliability

The Internet service provider (ISP) server and database server could crash resulting in system errors. Its likelihood of happening is medium and its impact is also high but the group planned to keep all operating systems and APIs updated. API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other.

E. Delay in product delivery

It can negatively affect customer satisfaction. Its likelihood of happening is low and its impact is also high. We planned to develop expertise in logistics, drop shipping and inventory management. Inventory management entails aspects such as safety stock management, cycle stock management.

➤ PROJECT SCHEDULING

Below is a table of the project scheduling;

MILESTONE	TASK
Initial Planning	Our team met to discuss the site's specific requirements during the initial planning stage. We built a full report of the pages, categories, products, and functionality required for the GROUP-GH website.
Wireframes and Mockup	After building detailed design and technical specifications during the initial planning phase, we proceeded with wireframe development. Wireframes are early-stage design concepts, intended to give you an idea of the layout for each page. After we've

	approved the wireframes, we'll create full page mockups. These expand on the wireframes by adding color and image elements.
Content	Together, we approved our mockup designs, the team started developing the copy for your website. This includes headings, page copy, and product descriptions.
Development	We began the technical portion of your site's build while content is being developed. This includes building a custom theme as well as setting up any necessary plugins.
Testing	Thoroughly testing an ecommerce site helps us identify any issues with rendering or functionality prior to deployment.
Deployment	The deployment period is critical to the success of the GROUP-GH ecommerce website design project. During the site's initial deployment, we will monitor things closely to ensure no problems arise.

➤ **TEAM STRUCTURE**

MILESTONE	TEAM MEMBER RESPONSIBLE
Initial Planning	All team members
Wireframes and Mockup	All team members
Content	Antwi Frimpong Solomon F16040110 Stephen Duodu Atobrah F16040104
Development	Adusei Peprah Emmanuel F15040107
Testing	Godfred Adjei Asante F16040101 Richmond Adu Gyamfi F16040108
Deployment	All team members

➤ **DOCUMENTATION PLAN**

This section provides documentation plan of the e-commerce website and they are listed below;

Registration

If customer wants to buy the product then he/she must be registered, unregistered user can't go to the shopping cart.

Log in

User can log in to the system by creating or entering valid user id and password for the shopping.

Payment

For Users, there are so many type of secure payment options e.g. Debit or credit card, check or bank draft and Pay-Pal.

Log out

After the payment or surfing the product the customer can logged out.

Technical Issues

This e-commerce websites works on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE etc.

Portability

The application is HTML and scripting language based. So the end-user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future. An end-user is use this system on any OS; either it is Windows or Linux. The system shall run on PC, Laptops, and PDA etc.

Operational Scenario

The system shows all product categories to user if he or she intend to order some products. If the user select items and list tem in shopping cart for buying. The

payment will made with credit card or bank check. If customer wants to cancel the order before shipping then he or she can cancel it.

➤ **CODING STYLE GUIDELINES**

PROGRAMMING LANGUAGE	LINK	IMPLEMENTATION
JAVASCRIPT	https://javascript.info/coding-style https://developer.mozilla.org/en-US/docs/Mozilla/Developer_guide/Coding_Style	JavaScript was used because of its dynamic capabilities. It is one of the very few languages that is accepted and supported by almost all top web browsers. It is an essential programming language that works with HTML and CSS.
PHP	https://www.udemy.com/ecommerce-website-in-php-mysqli/	It can be used as functional oriented and object oriented. This was used to implement login.php, search.php, logout.php, productdetails.php and so on as shown in figure 2.1.
HTML	http://styleguides.io/examples.html#html	Through HTML, the look and appearance of images, links, headings, text, page layout and just about every element of a web page can be formatted. This was used to implement shop.html, blog.html, checkout.html, contact-us.html etc. as shown in figure 2.1

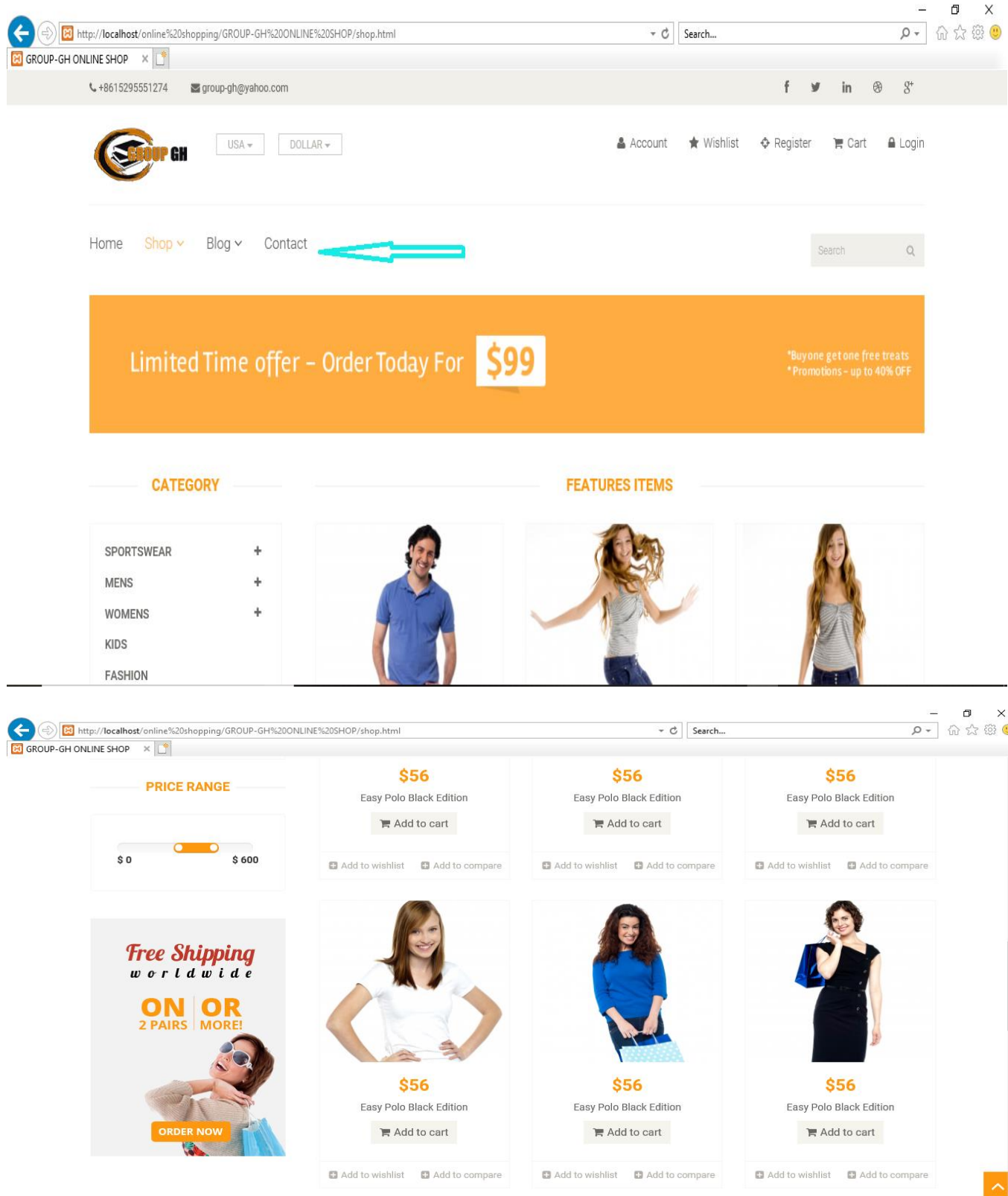


Figure 2.1 Homepage

➤ CONCLUSION

In general, today's businesses must always strive to create the next best thing that consumers will want because consumers continue to desire their products, services etc. to continuously be better, faster, and cheaper. In this world of new technology, businesses need to accommodate to the new types of consumer needs and trends because it will prove to be vital to their business' success and survival. E-commerce is continuously progressing and is becoming more and more important to businesses as technology continues to advance and is something that should be taken advantage of and implemented.

Hence, we designed the project to provide the user with easy navigation, retrieving of data and necessary feedback as soon as possible. In this project, the user is provided with an e-commerce website that can be used to buy products online.