**Undergraduate Final Year Project Proposal**

**Designing e-commerce website for electronic components business**

**Bachelor of Science with Honours in Computing**

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## Overview

Vietnam is an emerging phenomenon around the world because achievements that even the big guys cannot do have changed the situation of the country. One of these is Vietnam's victory over epidemics and natural disasters, along with the number of internet users ranked 8th in the world and 3rd in the region. Vietnam is also ranked 48 out of 157 countries in the human capital index (HCI), second only to Singapore in the ASEAN region. Therefore, Vietnamese businesses have been changing and expanding rapidly in business forms, not to mention e-commerce. E-commerce makes buying and selling more convenient than ever when only one device connected to the internet can interact with each other. Payment is also easier than ever when in Vietnam there are many supporting banking systems along with electronic wallets. There is a reputable organization selling electronic accessories looking to make e-commerce for them by setting up a website.

The goal of this project is to develop a general purpose e-commerce store where any product (such as gear, graphics card, mouse, keyboard, etc.) can be purchased from the home. over the Internet. An online store is an Internet virtual store where customers can browse the catalog and select products of interest. Selected items can be collected in a shopping cart. At the time of checkout, the items in the shopping cart will be displayed as orders. Then, more information will be needed to complete the transaction. Typically, customers will be asked to enter or select a billing address, shipping address, shipping options, and billing information such as credit card numbers. A notification email is sent to the customer as soon as an order is placed.

## Aim

Businesses that bring their products to their customers through e-commerce are websites. Deliver fast, convenient and extremely secure transactions between website business owners and their customers.

## Objectives

The project will have many main goals to complete and we will break it down in an appropriate, recognizable order.

- Create a request set for the site CM: The requisition is that the administrator's implementations mistakenly control the website with specific changes to display to users, some functions such as adding, modifying, deleting accounts, categories, brand, product, ... The elements that make up the website to display to the users and customers of the business when they visit the website. This admin page will be secure and strictly authorized, only accounts belonging to Role Admin can access and execute functions on this Admin page.

- Build and test prototype of website CMS: Designing and using the entire CMS system for the Admin site, then applying it to reality is another story. We need to ensure that when operating a large number of products, handling requests from thousands of users, a small error will also cause a very high risk so the actual running test will also be one of the Great goals are set.

- Control of customers' shopping cart: Developing an e-commerce website is most important not only selling products, but also knowing your potential customers. There are some customers who like the product but cannot afford it and maybe they add it to the basket or favorites list. The control of these data will help businesses have correct investment orientation and good business choices.

- Organize effective product classification: An effective search and arrangement network for customers is indispensable. The fact that customers can find and choose the right conditions for products that are suitable for themselves is a great thing and helps them to approach the business more easily. This is one of the factors of direct competition between e-commerce sites.

- Many product payment methods: Completing the payment gateway for customers by the tradition, what is decisive for another website is online payment. Online payments can have many things such as banks, e-wallets in many forms such as wire transfer, direct payment, scanning QR code, ... etc. The diversification of these forms and their application to the website will be a pretty important goal to help the website to be competitive in the market.

- Simple navigation: From home page to ordering information and links for specific products. The link from the homepage until the checkout, the information and the interface must be consistent for the user to easily use. In addition to displaying products, product information must be described in the fastest and most specific way to customers.

- Flexible product reviews: Create a bond between non-connected customers by allowing them to rate and comment on the products they use. This helps users who intend to buy the product know the experience of the users who have bought and used the product will be a great experience. At the same time, these reviews and comments will help businesses manage their products and understand their customers much better.

- Customer care system: The quicker they are to solve the problems or questions of our customers, the more they will remember our website. This will be resolved by having a live chat frame of the customer with the website administrator. In addition, links for customer communication will also become more convenient. For complex issues, we will also design an interface, optimize user functions, and facilitate the most convenient way for website customers to present their problems quickly.

## Legal, Social, Ethical and Professional

E-commerce has been popular in every corner of Vietnam from urban to rural areas, to the fact that a certain farmer uncle goes online to order online from e-commerce sites or applications. normal. It is followed by technological innovation that regularly incorporates ethical standards into legislation. New forms of e-commerce allowing to conduct new business have many advantages but also bring many risks. We will discuss ethical and legal issues related to e-commerce business to take the right direction.

### Legal issue

Legal issues, we must first mention the issue of ensuring the safety and reliability of e-commerce transactions. Safety and reliability are the factors that people participating in e-commerce must consider before deciding to join. If users feel that information about their transactions is not secure, can be modified, may be illegally discovered, they will not participate in e-commerce. Therefore, it is necessary to have a secure telecommunications infrastructure, on which there are means to protect information, avoid unauthorized discovery and use, and a full legal corridor clearly delineating the responsibilities of the owners. E-commerce can participate in all stages of commercial transactions where safety and reliability are threatened such as workstations, servers, and transmission lines. On the other hand, users must also learn to protect themselves by technical measures. Encryption is an effective tool to ensure safety for transactions in e-commerce. It allows users to securely protect their information, ensure the origin and integrity of information. However, when using encryption it can happen that criminals can use encryption to encrypt information. At the same time, encryption sometimes makes it difficult for business directors to control the operations of their officers.

Privacy is also a very controversial issue in society today. Collecting customer information to serve customers or to do illegal things? Personal information is respected by law. Individuals have the right to ensure the confidentiality of information about their private life. When conducting transactions in the Internet environment, entities participating in transactions are often required to declare personal information such as credit card number, address, date of birth, home address. personal telephone number for verification purposes. The reason for that is that the parties to the transaction do not know each other. This private information is easily stolen and used by a third party for other purposes, harming the participants in e-commerce transactions. Therefore, in e-commerce, it is necessary to clearly define the legal responsibilities of the parties to the transaction for the information of the subjects.

Contractual issues are also of great concern because, by law, a contract is established when the parties reach an agreement on the contractual conditions, regardless of whether it is a verbal or written agreement. The problem that arises is to determine where to enter into the contract to determine the law to resolve when there is a dispute. In most cases the country where the webserver is located is of little interest and the location of the webserver is not always clear. Domain name is also not the basis to determine where to conclude the contract. There are many Vietnamese enterprises trading through foreign domain names and vice versa. In general, all types of contracts can be entered into online, but there are also some types of contracts that are required by law to be in writing, notarized or registered. The laws of other countries do not deny the legal validity of virtual contracts just because it is data (electronic record). There are many types of contracts in virtual spaces, namely contracts for goods, services and digitalized services. The quality of goods when offered for sale online. suitable for the purpose of use, safe and without any minor defects. Minor defect will not be considered if the seller points out to the buyer before signing the contract. The main service provider is to provide labor and skills. Buying a software at a store, the software is a commodity, and a contract with an informatics company hired to write software is a service contract. Digitalization service means that the seller can send to the buyer all kinds of products such as video tapes, music, books, articles, software...etc through the Internet.

### Social issue

We will remove all elements with violent, sexual and sensitive content on the e-commerce website, if the products have this content we will ask the user to confirm by logging in and verifying the specific age.

### Ethical issue

In general, many of the ethical and global issues of Information Technology apply to e-business. According to the Vietnamese Ministry of Industry and Trade, Only in the first July of 2020, the authorities checked 2,403 cases, discovered and handled 2,213 violations, sanctioned 16.3 billion dong, the infringing goods more than 40 billion. Most infringing goods in e-commerce business are goods without invoices, vouchers, counterfeit goods, goods of unknown origin, goods infringing intellectual property. We can see that morally before, individuals and organizations must be ethically conscious that what they do will affect others quite a lot. Just like the owner of that E-Commerce business is responsible for protecting its customers.

## Planning (see appendix A)

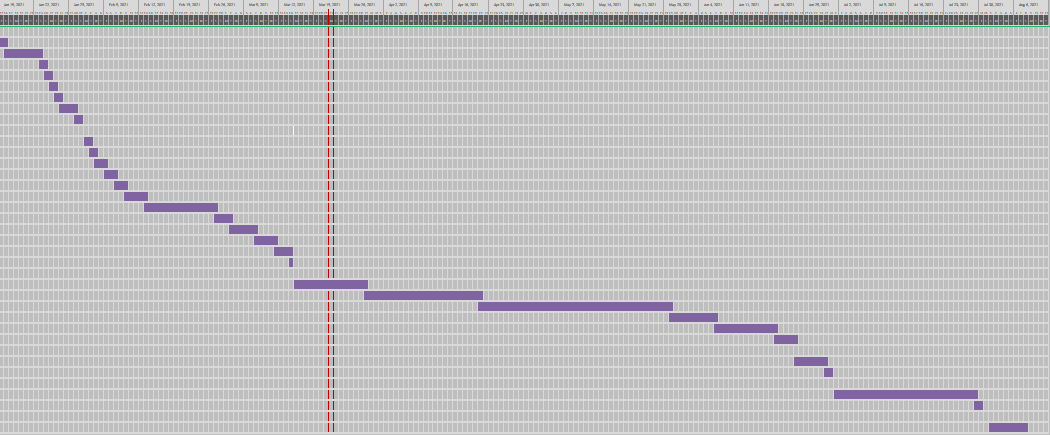


Figure 6-1: GanntChart Timeline



Figure 7-1: GanntChart Task

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