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**North South University**

**Department of Electrical and Computer Engineering**

**Senior Design Project (CSE 499A)**

**Online E-commerce shop ( Ebuy)**

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**Spring 2021**

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**Introduction:**

Two thousand years ago, Roman roads brought trade and commerce to Europe in an unprecedented manner. A thousand years ago, the spice routes linked the cultures of East and West. At the dawn of the second millennium, the Internet, the world’s largest computer network, the network of networks, is making fundamental changes to the lives of everyone on the planet-changing forever the way business is conducted.

Internet has become an important medium for doing global business based on the state-of-the-art technology. Global business was conducted in a new way: electronically, using networks and the Internet. The availability of Internet has led to the development of E-Commerce (Electronic commerce), in which business transactions take place via telecommunication networks. E-Commerce has two major aspects: economic and technological. The stress of this course will show you how to get started in the complex and exciting world of Electronic Commerce. New standards and new facilities are constantly emerging and their proper understanding is essential for the success of an operation and especially for those who are assigned a duty to select, establish, and maintain the necessary infrastructure. Here we mainly construct a e commerce web site where people can buy their daily goods.

**Types of users of the website:**

**Visitors**

**Members**

**Admin**

**Objectives**

The objective of our project is to ensure a user-friendly shopping experience for customers that helps the customer to shop and for sellers to sell their products, securely and easily and also, ensure safe, secure bill payment after customers are done shopping. This project of ours will save time and energy of the customers and also make it easier for the customers to look for products by the feature in the website, that is, image search which will make it more efficient and quicker to find any product. In short, people can shop anytime from anywhere, 24/7.

Our project will fulfill the following other objectives as well:

* Ensure a user-friendly interface for customers to shop, hassle-free
* Ensure a secure and user-friendly way to pay via online after the customers are done shopping
* Ensure customer friendly shopping facility by able to search for products by image search facility
* Ensure secure way for sellers to sell products anytime from anywhere, hassle-free
* Customers can search product by image processing.
* Ensure customer support by online chat and call option.

**Features:**

Visitors can check it out and became a member by signing up.

We have also an Admin panel.

There are many categories of product, user can search product from search bar.

Users can also search product by their favorite brand.

User can pay online for their product.

User can search product by capturing images.

We will also construct the option of image processing and online chat & call option for customer support.

**Challenges**

1. Trust

The biggest challenge is the trust between sellers and customers and it is the biggest challenge faced in any e-commerce website since verification of any product can’t be done instantly.

1. Security

The security is also a big issue nowadays. To make sure if the date or the information are not tampered by any 3rd part or not

1. Responsive

It’s important to make sure that 24/7 the website is responsive and there are so many factors in doing so and the most important part is that the website has to be fast responsive and easily be accessed through any device they want

1. Accessibility

Another big challenge is the availability to use the website for any aged people be it young, adult or disabled which often becomes difficult for people designing the website

1. Speed

For a website to always be a fast and accessible is a must nowadays. Slow website means losing the interest of customers to shop. So, to maintain and reduce traffic and keep the website fast is really a big challenge for the people designing the website

1. Retention

Last but not least is, suppose a customer faced traffic the first time, then to make the customers interested to visit the website again is another big challenge

**Proposed Solution**

We will ensure a design integration that is easily accessed by anyone who comes across the website. Also, user experience will help us in designing websites that will be developed. We will pay attention to the prevalence of users when exploring a site. After that, we can create a website with features that are matched with the results of research from the prevalence of these users so that later it will be easier for them to visit. One technique to keep our site safe is by not entering the login form on the site’s advance element. Because many individuals sometimes try to disrupt the peace of a website. We can anticipate the speed-related issues by using a medium to small resolution images or using the CSS Sprite method. So later, the data request to the server element will not be short and facilitate page access. Here, we as web designers must create a unique design of eyesight without striking. While the owner of the site must fill it with interesting content so that users come home again.

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**Technologies**

**Frontend:**

1. HTML
2. CSS
3. Bootstrap
4. JavaScript

**Backend:**

1. PHP

**Database:**

1. Mysql

**Task Distribution**

|  |  |
| --- | --- |
| **Member Name** | **Tasks** |
| **Md Iftekhar Riyadh(1610670042)** | Login and connections |
| **S.M. Nasif Sadiq(1530117642)** | Database Design and Dashbord |
| **Hossain Mohammad Maruf(1712604642)** | Theme Development & Frontend |
| **Tasfia Nousheen(1711488042)** | Login and users |
| **Avishek Barua(1721158042)** | Working on products |

**Timeline to be Achieved**

|  |  |
| --- | --- |
| **Week** | **Target** |
| Week 1 | Planning |
| Week 2 | Class diagram, ER Diagram |
| Week 3 | Database Design |
| Week 4 | Working on frontend |
| Week 5 | Frontend and Theme development |
| Week 6 | Login and User Part |
| Week 7 | Working on Products |
| Week 8 | Adding Products and Backend connection |

**Conclusion:**

The E-commerce website will be developed for customers to achieve maximum efficiency while shopping and to reduce the time it takes to shop physically. It is a 24/7 service. Since minimalism has become another form of consumerism, we will try to make the website as simple to find anything a customer desires and also easily accessible for any aged disable people. While making the website, we will use HTML, CSS,JavaScript, Bootstrap as front end and PHP as back end and MySQL for the database. The system is strong enough to withstand regressive daily operations under conditions where the database is maintained and cleared over a certain time of span. The implementation of the system in the organization will considerably reduce data entry, time and also provide readily calculated reports.