



# Module Code & Module Title CC4057NT Introduction to Information Systems

# Assessment Weightage & Type 30% Individual Coursework

Year and Semester 2021-22 Spring 2

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Assignment Due Date: 1st June 2022

**Assignment Submission Date: 1st June 2022** 

I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a marks of zero will be awarded.

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#### 1. Introduction

#### 1.1. Website

A collection of many web pages usually containing hyperlinks to each other and made available online by an individual, company, educational institution, government, or any organization is known as a website. Each website has a specific internet address (URL) that you need to enter in your browser to access the website.

A website is hosted on one or more servers and can be accessed by visiting its homepage using a computer network.

The first website was introduced on 6<sup>th</sup> August 1991 which was developed by Tim Berners-Lee at CERN. As of January 2018, there were around 1.7 billion websites on the internet.



Figure 1: Website figure

A website is another name of success in modern times as today we are living in a digital world where people are spending most of their spare time on the internet browsing news, watching videos, surfing Facebook, and many more. As a result, we can consider a website to be a digital environment capable of delivering information and solutions while also encouraging interaction between people, places, and things in order to support the goal of the organization for which it was established (GeeksforGeeks, 2021).

## 1.2. Webpage

A webpage is a HTML document that can be read using any web browser. It is stored on the web server, which can be accessed by entering URL for that web page, and it appears on the user's web browser once it has been loaded. Because each webpage has its own URL, no two pages can have the same URL.

A webpage contains images, text, videos, link for the other pages, etc. However, it is commonly used to provide information.

- Some of the characteristics of the Web Page are :
  - Webpage consumes much less time to create compared to a Website.
  - It can have any type of information including videos, and audios.
  - It can be made up of only HTML (Hypertext Markup Languages), or CSS, or JavaScript for dynamic and attractive behavior.
  - It works on any device, including mobile, desktop, laptop, and computers.
  - The search engine gives a link to a web page, and when a user clicks on that link, they are redirected to a website's webpage (javaTpoint, 2021).

To make a Webpage dynamic and attractive, CSS, JavaScript and HTML are used. CSS code is used to make the page more interactive and control its look and feel. The JavaScript code is used to make a webpage more interactive and functional by adding interaction and functionality. And HTML code ensures the proper formatting of text and images for the website.

Despite the fact that each web page is unique, some components are common to almost all the pages. Some of these elements are listed below;

#### a. Home Page

"BuyCell" company's logo is visible at the top of the website. It is the core of the business' branding and identity. Secondly, navigation bar is another vital feature of the website.

Iphones, Samsung, Xiaomi, Research, Blog, and Contact us is the navigation bar of the website which acts as a road map because it aids the visitors to have the overview of the content. It helps the visitors to locate the information they are looking for using most efficient route.

Similarly, some photos and headlines are seen on the home page because within a matter of seconds, our website needs to communicate to visitors what we have to offer. The headline is of 4-5 sentences of powerful, memorable, and concise text that targets our viewers' needs.

Likewise, to attract the viewers, the top sale products of my website are kept in the auto-swiper mode. The image changes every four seconds.

Finally, the footer section is equally crucial to the navigation bar. This part provides links to social media once our visitor reaches the bottom of the homepage, which is a terrific approach to encourage people to engage with our brand.

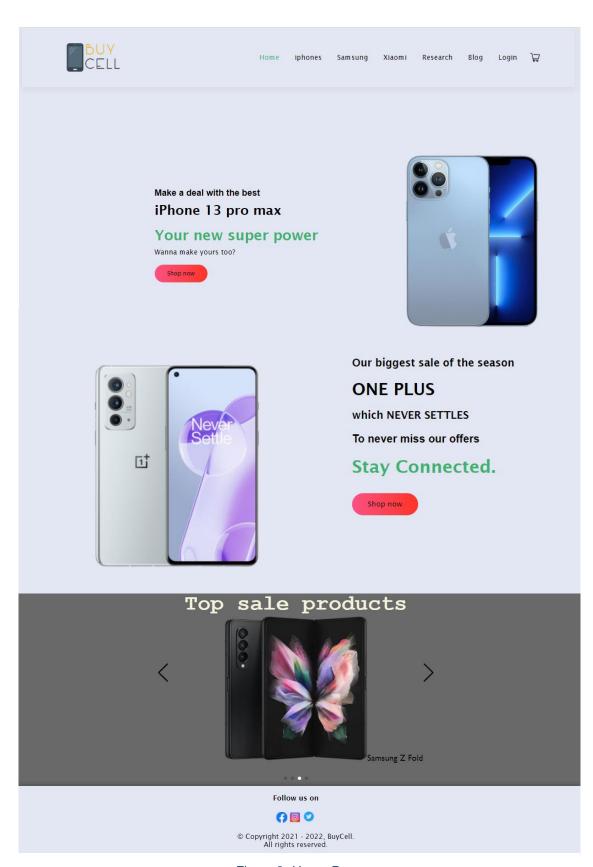


Figure 2: Home Page.

#### b. Products Page

When building an online store, a lot of focus goes into the homepage, after all, it is the first thing visitors see when they arrive. But the real goal of any ecommerce website is sales, and there's no way you will achieve that without stellar product pages.

Iphones, Samsung, and Xiaomi are the three different webpages that contains the product of the "BuyCell" website. In all these three webpages, there is the same navigation bar with same features as above home page's feature. All the product pages contain the images of the product with their price mentioned below the product's image. And below the price there are two options, they are: Buy and Add to Cart. When we hover over these buttons the button's color changes after 0.3sec. And when we click on the buy button, it directs us to the Login page, where we have to put our email and password to place an order. This is achieved with CSS code.

For the footer section, it is also the same as the home page footer. And the product's page is saved according to with their company's name like: iphones.html, Samsung.html, and xiaomi.html.

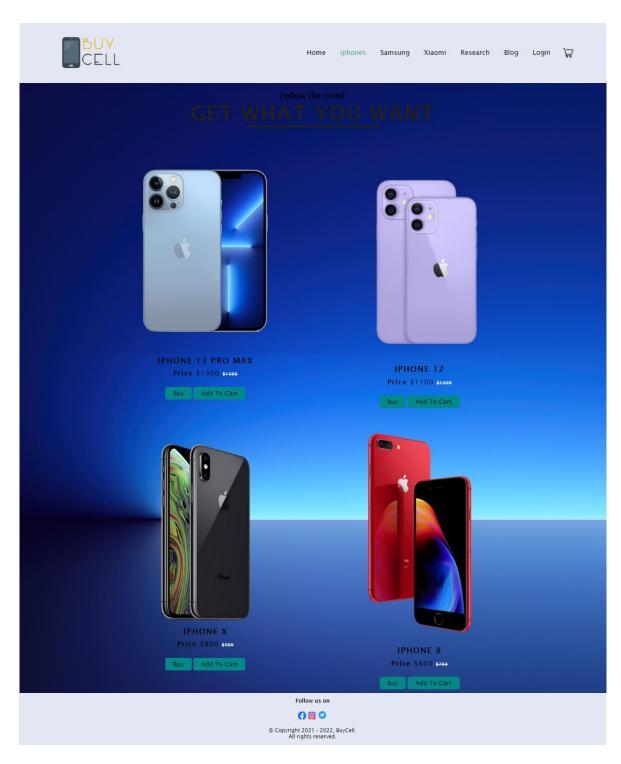


Figure 3: Iphones's Product Page.

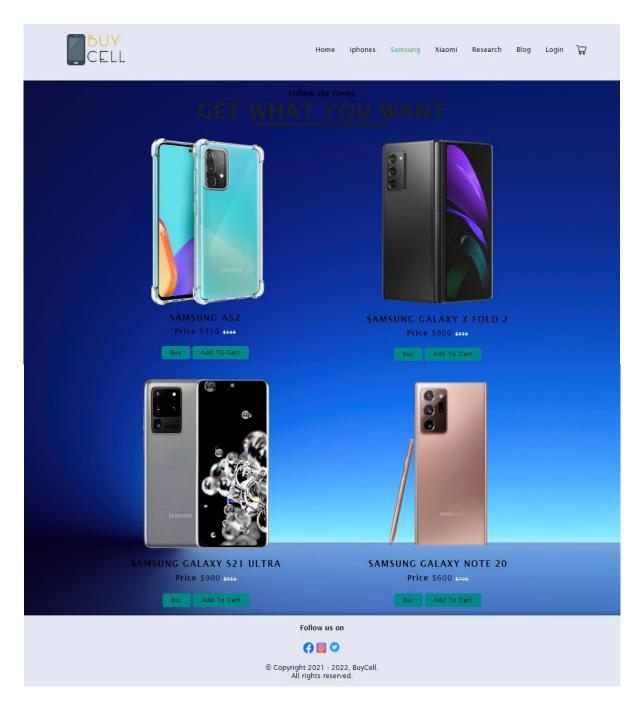


Figure 4: Samsung's Product Page.

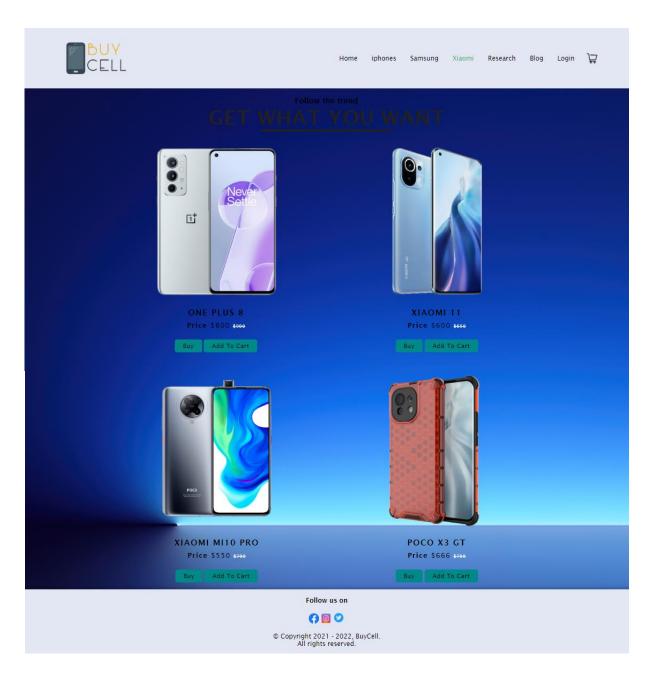


Figure 5: Xiaomi's Product Page.

## c. Research Page

In this research page, I have compared the Navbar, Product Page, Login Page, and Footer section with the some of the website I was inspired from. In the research page, I also have described about from which website I was inspired from.

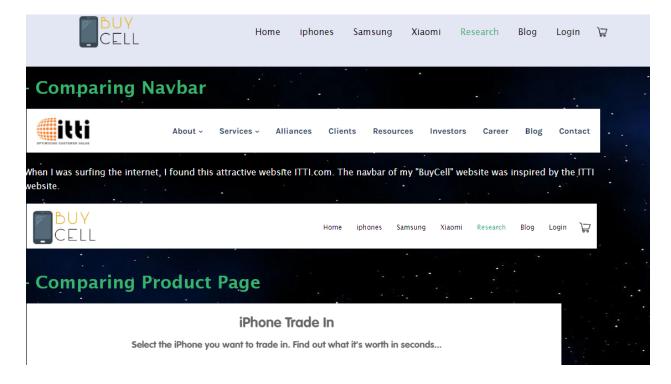
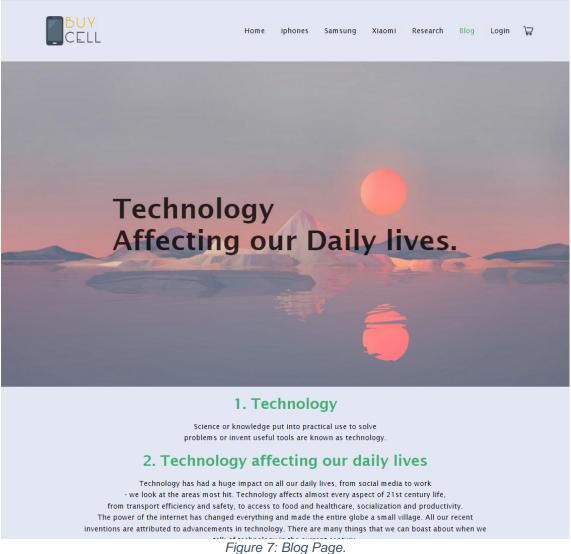


Figure 6: Research Page.

## d. Blog Page

The layout of a blog page varies from one website to the other, but in my website, the large image on which the text is printed makes the initial impression on this page. The navigation bar and the footer section are same as of the home page.

Similarly, the website continues with some definitions of technology and how it affects people's daily lives, as well as some relevant images.



## e. Login Page

The navigation bar and footer stay unchanged on this page too, which features a large background image. Four input boxes can be seen where visitors can write their name, email, password, and message. We can also see those location, phone, and envelope icons where we can contact the "BuyCell" website.

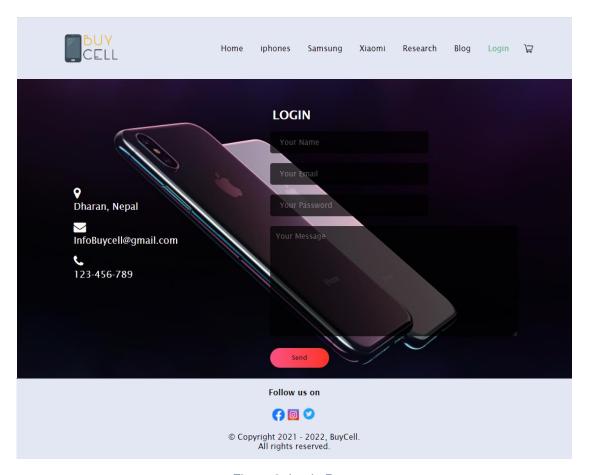


Figure 8: Login Page.

#### 1.3. HTML

Hyper Text Markup Language is an acronym which is used for creating web pages and web applications. It describes the structure of a Web Page. It consists of a series of elements which tells the browser how to display the content.

Hyper Text simply means "text within text". It is a way to link two or more web pages with each other. And a markup language, on the other hand, is a computer language for applying layout and formatting principles to text documents. With the help of HTML only, we can create a web page (javaTpoint, 2021).



Figure 9: HTML logo.

#### 1.4. CSS

Cascading Style Sheet (CSS) is a style sheet language which is used to describe the look and formatting of a document written in a markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces.



Figure 10: CSS logo.

In most websites, CSS is used in conjunction with HTML and JavaScript to develop user interfaces for web apps and many mobile applications.

Using CSS, we can completely change the look of the website with only a few changes in CSS code.

## 1.5. JavaScript

JavaScript is a lightweight object-oriented programming language used by a variety of website to script their webpages. It is an interpreted, full-featured programming language that enables dynamic interactivity on websites when applied to an HTML content. It was first introduced in 1995 to allow Netscape Navigator users to add programs to webpages. Since then, it has been adopted by all other graphical web browsers. Users can use JavaScript to construct modern web applications that interact right away without requiring a page reload. On a typical website, JS is utilized to provide a variety of interactivity and simplicity.



Figure 11: JavaScript Logo.

## 1.6. Aims and Objectives

The main goal of the coursework is to create a website that allows individuals to buy cell phones at the greatest prices and offers using HTML, CSS, and JavaScript.

- Objectives:
- i. To sell as many mobile phones as possible to as many people as feasible.
- ii. To provide a welcoming environment in which people can freely contact and interact with us.
- iii. To make more attractive, well-behaved, and well-functioned website.

#### 1.7. Tools and technologies used

Without using tools and computer languages like HTML, CSS, and JavaScript, we would not be able to complete the coursework. Additional software like snipping tools, MS Word, Balsamiq Wireframes, and the most important, Visual Studio Code.

We have already discussed about HTML, CSS, and JavaScript above, so now we will be discussing about other tools and technologies used. They are described below:

#### i. Snipping tool

Windows 7 introduced the Snipping Tools, which is also included in Windows 8, Windows 10, and Windows 11. It can capture screenshots of the entire screen, a window, or a rectangular

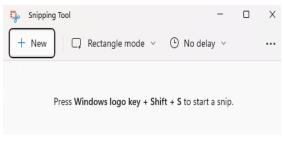


Figure 12: Snipping Tool.

portion of the screen and save it as an image file (Computer Hope, 2022).

#### ii. MS Word



Figure 13: MS Word logo.

Microsoft Word is a word processor that was developed by the company Microsoft. It is one of the Microsoft Office suite's office productivity programs. It was first released in 1983, and it was created by Charles Simonyi and Richard Brodie (Computer Hope, 2021).

#### iii. Balsamiq Wireframes

Balsamiq Wireframes is a user interface design tool for creating wireframes which can be used it to generate digital sketches of our idea or concept for an application or website. The completed wireframes can be used for user testing, clarifying our vision, and many more.



Figure 14: Balsamiq Wireframes logo.

## 2. Wireframe

A wireframe is a low-fidelity representation of a web page that depicts the page's fundamental features. They aren't interactive, and they don't reveal a lot of detail, but they do generate a minimal design that serves as a guide for the project. The wireframes I have created for the "BuyCell" website are depicted below:

## 2.1. Home page Wireframe

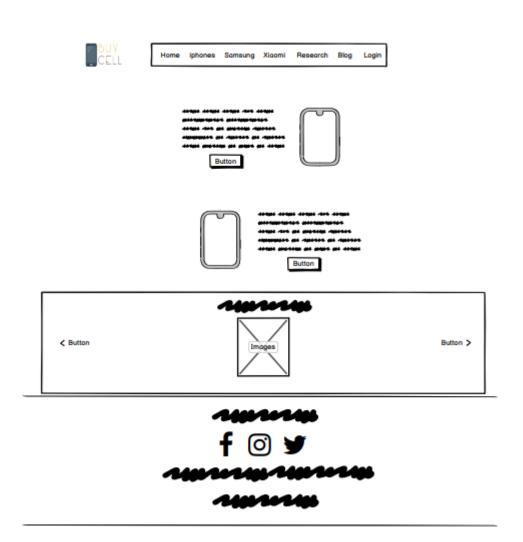


Figure 15: Home Page Wireframe.

The working home page of "BuyCell" website.

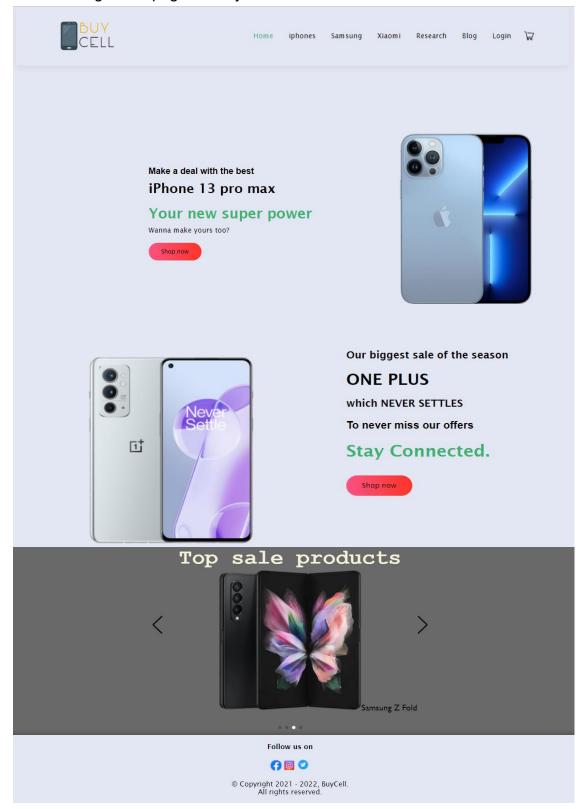


Figure 16: Working home page.

# 2.2. Products Page Wireframe

i. Iphone's page wireframe is shown below:

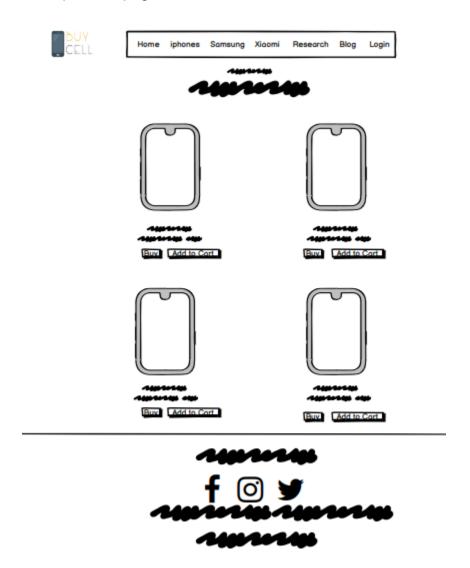


Figure 17: Iphone page Wireframe.

ii. Working iphone page of "BuyCell" website.

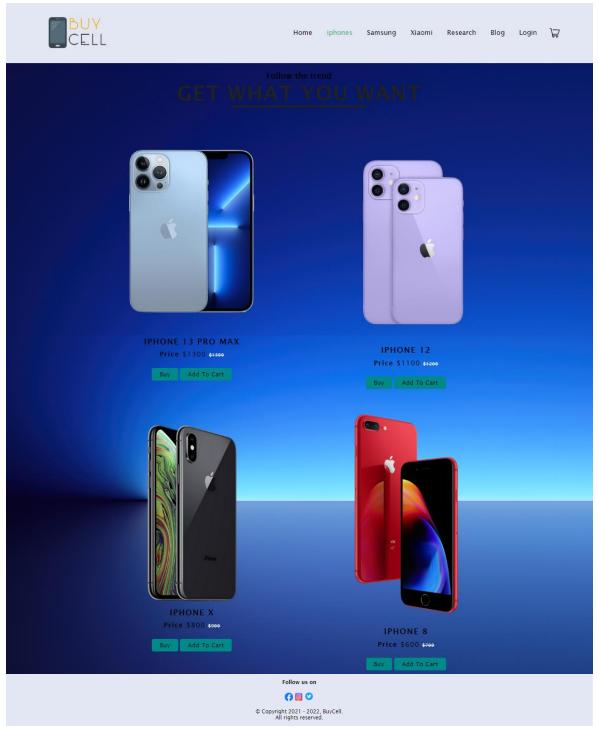


Figure 18: Working iphone Page.

# iii. Samsung page wireframe is shown below:

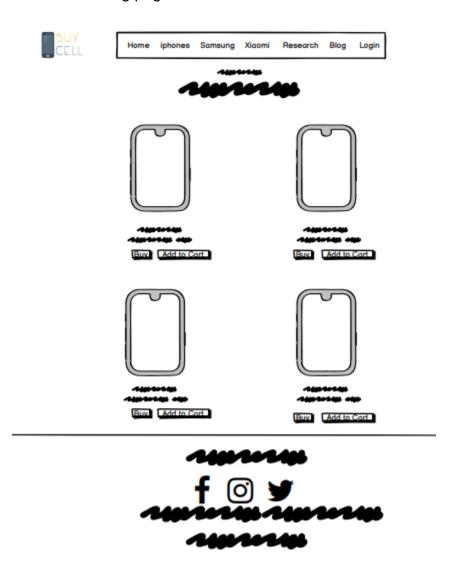


Figure 19: Samsung's Page Wireframe.

## iv. Working Samsung page of "BuyCell" website.

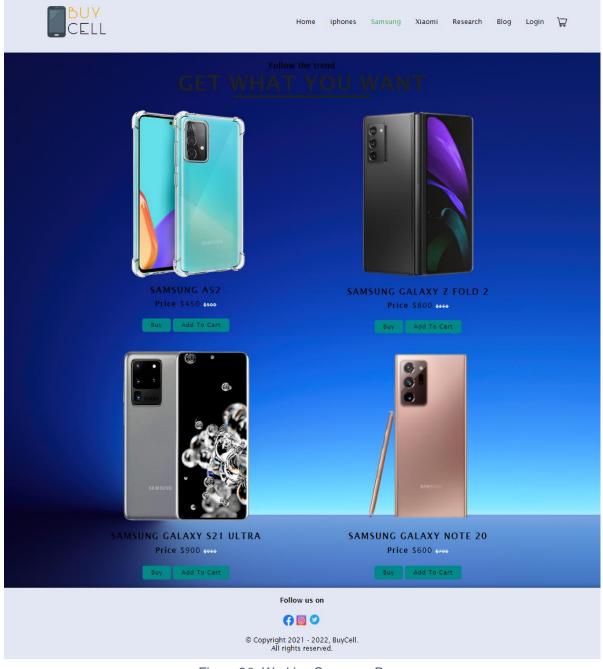


Figure 20: Working Samsung Page.

# v. Xiaomi page Wireframe is shown below:

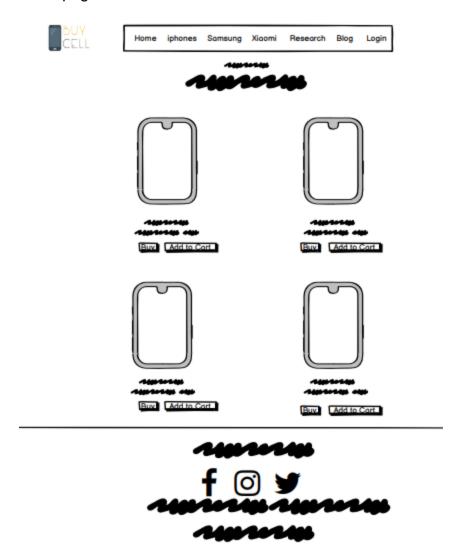


Figure 21: Xiaomi's Page Wireframe.

vi. Working Xiaomi page of "BuyCell" website.

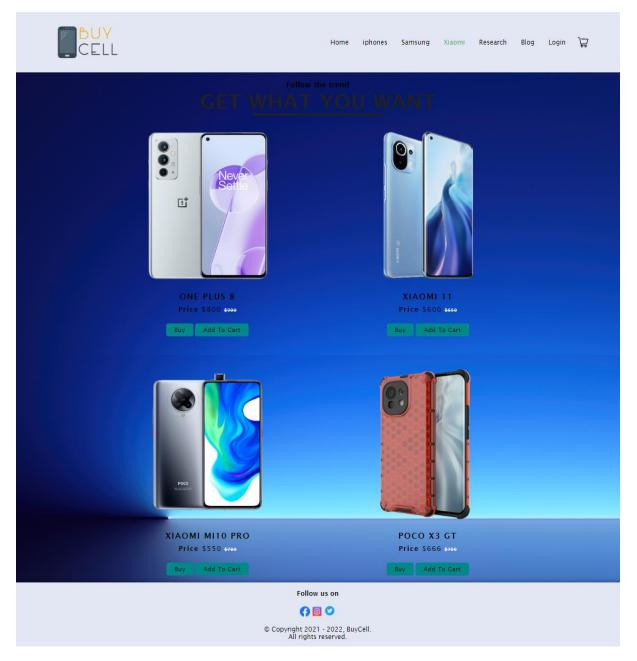


Figure 22: Working Xiaomi Page.

# 2.3. Research Page Wireframe

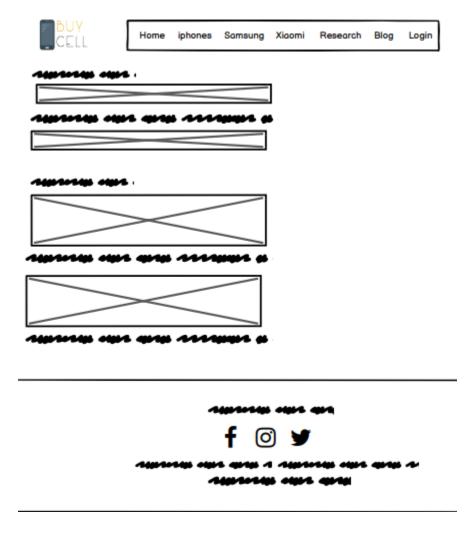


Figure 23: Research Page Wireframe.

- Working Research Page of "BuyCell" website.

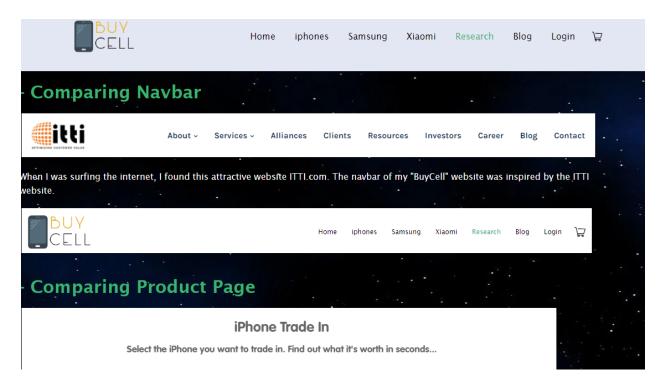


Figure 24: Working Research Page.

# 2.4. Blog Page Wireframe

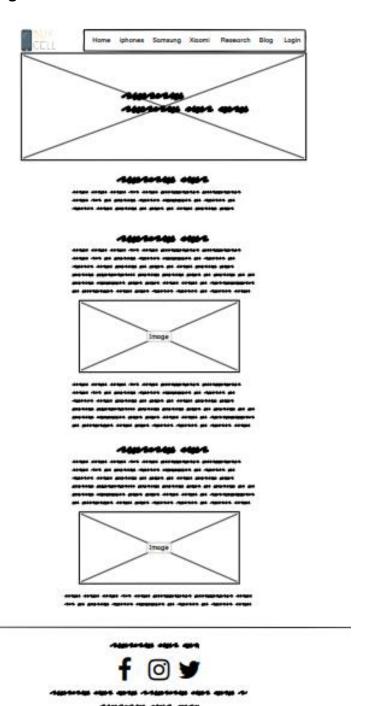


Figure 25: Blog Page Wireframe.

- Working Blog Page of "BuyCell" website.

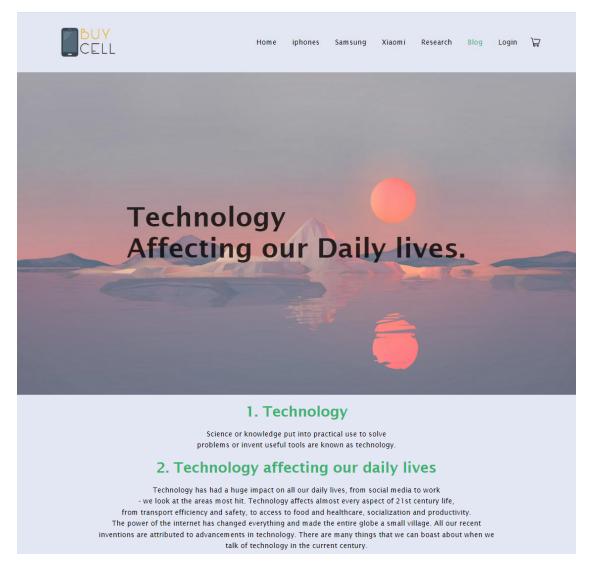


Figure 26: Working Blog Page.

## 2.5. Login Page Wireframe

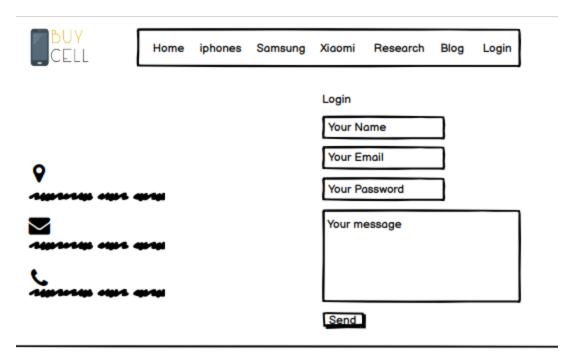




Figure 27: Login Page Wireframe.

- Working Login Page of "BuyCell" website.

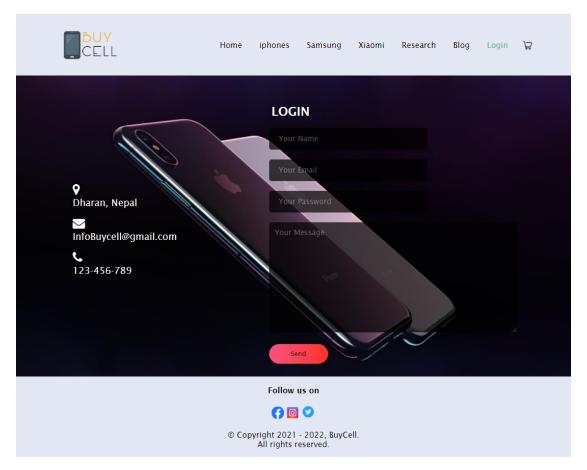


Figure 28: Working Login Page.

# 3. Testing

## 3.1. Login pop-up messages

When a send button in a login page is pressed, an appropriate pop-up message should appear.

Objective	When entering Name, Email, and Message in the Contact Page, an appropriate pop-up message appears.
Action	When the user presses the send button, a pop-up message should appear.
Expected Result	When the user fills in the details on Name, Email, Password and a message, there should be a pop-up message: "Login Successful!  And your message has been sent."  When the users don't fill-up the details, there also should be a pop-up message: "Login Failed!  "
Actual Result	When the user fills in the details on Name, Email, Password and a message, there was a pop-up message: "Login Successful! And your message has been sent."  When the users don't fill-up the details, or put unregistered email, there was a pop-up message: "Login Failed! ""
Test	Successful

Table 1: Testing table of login button.

## Testing screenshots are depicted below:

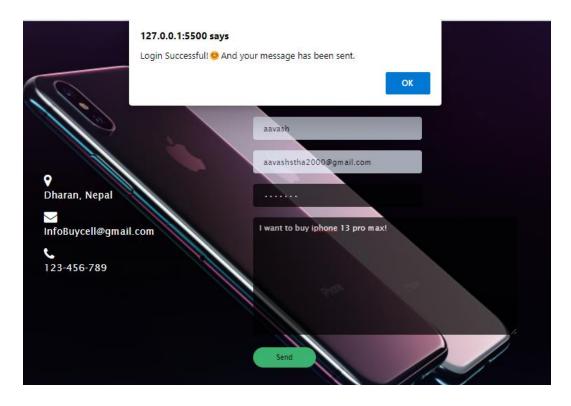


Figure 29: After filling details and pressing send button.

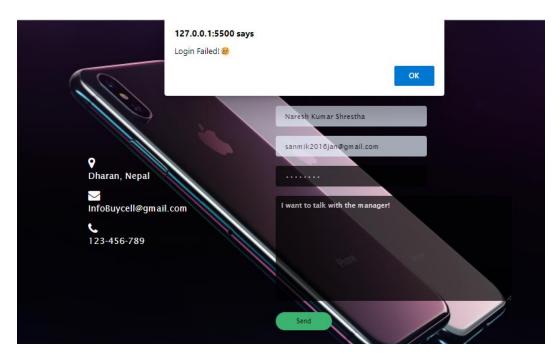


Figure 30: After filling unregistered email and pressing send button.

## 3.2. Hovering effect

The links in the navigation bar should change its color and have a bottom border when hovered upon.

Objective	When you hover over the links in the navigation bar, they should change color and appearance.
Action	When hovered over, the links in the navigation bar should have a bottom border.
Expected Result	When hovered over, it should have a bottom border.
Actual Result	When hovered over, it has a bottom border.
Test	Successful

Table 2: Testing table of hovering effect.

## Testing screenshots are shown below:

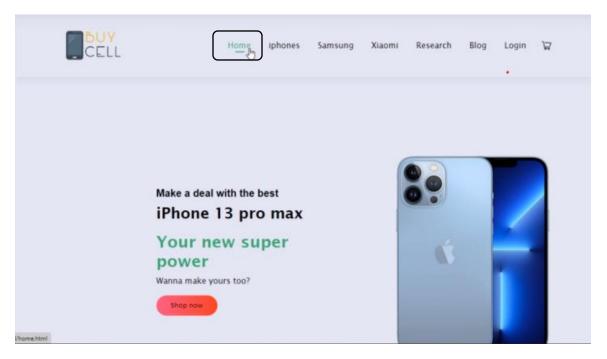


Figure 31: Hovering effect on a working webiste.

## 3.3. Slider

Slider is a slideshow feature which displays the products or photos every four second.

- Note: Timing can be set to slideshow the images.

Objective	To change the image every four seconds.
Action	Check the images in the slider every four seconds.
Expected Result	Should change the image in every four seconds.
Actual Result	Imaged changed in every four seconds.
Test	Successful

Table 3: Testing table of slider feature.

## Testing screenshots are shown below:





Figure 32: Sliding feature on a working website.

#### 3.4. Navbar Link

Navbar links are like a roadmap to the visitors where they can find the important sections of the website. The testing table of the navbar link is depicted below:

Objective	To see if the navbar links are working properly.
Action	Click and open home page.
	Click and open login page
Expected Result	Should change navbar border based on navbar link click.
Actual Result	Navbar link border are changed based on the navbar link click.
Test	Successful

Table 4: Testing table of Navbar link.

Testing screenshots are depicted below:

When we click on the home page and login page navbar, it directs us to home page and on clicking login page, it directs us to login page.

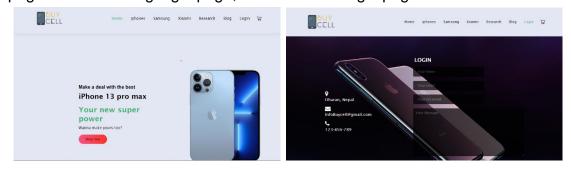


Figure 33:Working navbar link on a working website.

## 3.5. Responsive buttons

When we click on a "Buy" or "Shop now" button, it should redirect us to products page where we can buy the products. The testing table is shown below:

Objective	To see if the button are responsive or not.
Action	Click "Shop now" or "Buy" button.
Expected Result	Should redirect us to products page.
Actual Result	The button was linked with products page and products were seen.
Test	Successful.

Table 5: Testing table of responsive buttons.

Testing screenshots of a responsive buttons:

Clicking on shop now button.



Redirecting to iphone's product page.



Figure 34: Responsive button on a working website.

## 4. Conclusion

Here, I have come to the end of the coursework. I tried my best to include all the necessary points that are required for the given topic. As per the question, we were asked to create an e-commerce website which sells mobile phones. This coursework was one of the most difficult and challenging one because it was a whole new subject for me.

The process of web design and coding was really complex. When I first started doing the coursework, I thought I'd be able to do it on time, but God had other plans; today is the second last day, and I'm still unable to complete it.

Every IT student knows or at least has heard the name HTML, CSS, and JavaScript. They are the elements that are used to create a website, decorate a website, and make an interactive website. It is not as simple as their names, implementing them is a difficult task to do. Understanding the codes was difficult but to be honest it was really interesting and fun to do too.

Every research I made was really helpful, and with help of my friends, I was able to complete the coding part. This project would help the people who are willing to buy the best and the beast phones, in a very reasonable prices and with amazing offers.

Overall, I feel that every one of these factors contributes towards making an effective website, as without any of these aspects the website will be of poor quality and would lead the customers searching for mobile phones elsewhere.

## 5. References

Computer Hope, 2021. Microsoft Word. [Online] Available at: https://www.computerhope.com [Accessed 31 05 2022]. Computer Snipping Hope, 2022. Tool. [Online] Available at: https://www.computerhope.com [Accessed 31 05 2022]. GeeksforGeeks, What Website?. 2021. is [Online] а Available at: https://www.geeksforgeeks.org [Accessed 30 05 2022]. javaTpoint, 2021. What is Webpage. [Online] а Available https://www.javatpoint.com at: [Accessed 30 05 2022]. javaTpoint, 2021. is HTML. [Online] What Available https://www.javatpoint.com at: [Accessed 31 05 2022].