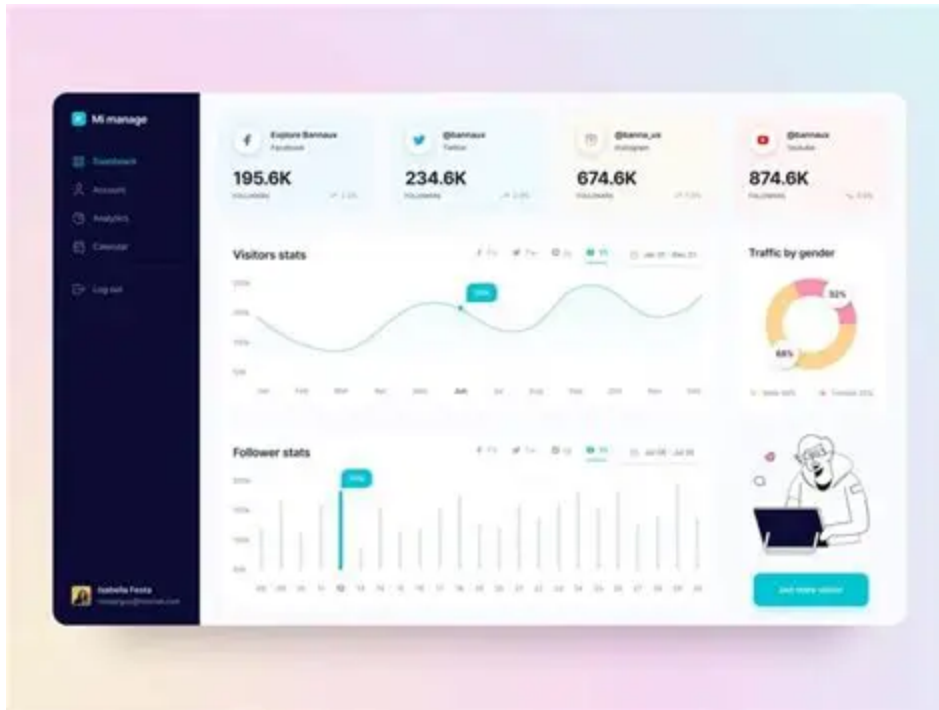


- Importance of websites and web technologies.
- Website structure, functionality, and web protocols.
- Tools and technologies in web development (text editors, IDEs, browsers, etc.).

The creation and use of websites are what makes up the modern digital experience nowadays, it is the virtual foundation of education, businesses, marketing, information hubs and communication lines such as social media. Websites create a social connection between people. It mainly is the tool that serves as a way for the internet to be an accessible resource for each of the users globally. Without these components, the media and network would not be as efficient, it would be unstable and not as accessible to people. They provide necessary services, facilitate communication and organizing of information, this creates a technological based digital age. From creating content to handling businesses and processing of payments and transactions locally or internationally, it is then evident that websites are the essential and necessities that provide the function and organization of the internet.

A functional and accessible website is more than a page collection, rather it is a media friendly user interface and experience. An effective website is composed of its usability and form. It also has to provide structure which is what guides the users making sure it can help and allow in navigation of certain content page by page. This composes of all the parts such as main menus, sub menus and links that would provide related contents. A site like this allows the users to feel supported and at ease in searching up what they need quickly and effortlessly.

To talk about usability, it mainly is the features and necessary tools that make a website a comfortable space to be. It includes elements that are interactive, such as search bars, forms or direct communication, applicable buttons that will connect them to the provided action such as read more or continue. These components are not just for aesthetics but it provides structures and dynamics to a static page. A site that is well usable and carefully structured encourages users and visitors to interact for a longer period of time which will eventually lead them to accomplish the task they want to do whether that be transactions and purchases or completing a research task.



## WEB DESIGN EXAMPLE

Although the decorative interface is what makes users more engaged and what they notice first, there is a more complicated process and system behind it, certain set of rules that users will encounter, The fundamental rules that creates the organization of data and allows to be transmitted globally are called Web protocols, The most often encountered is the Hypertext Transfer Protocol, HTTP, it indicates how the web will request and take in information from the website's server. Although in this generation, the more secure version has become more prominent HTTPS, Hypertext Transfer Protocol Secure.

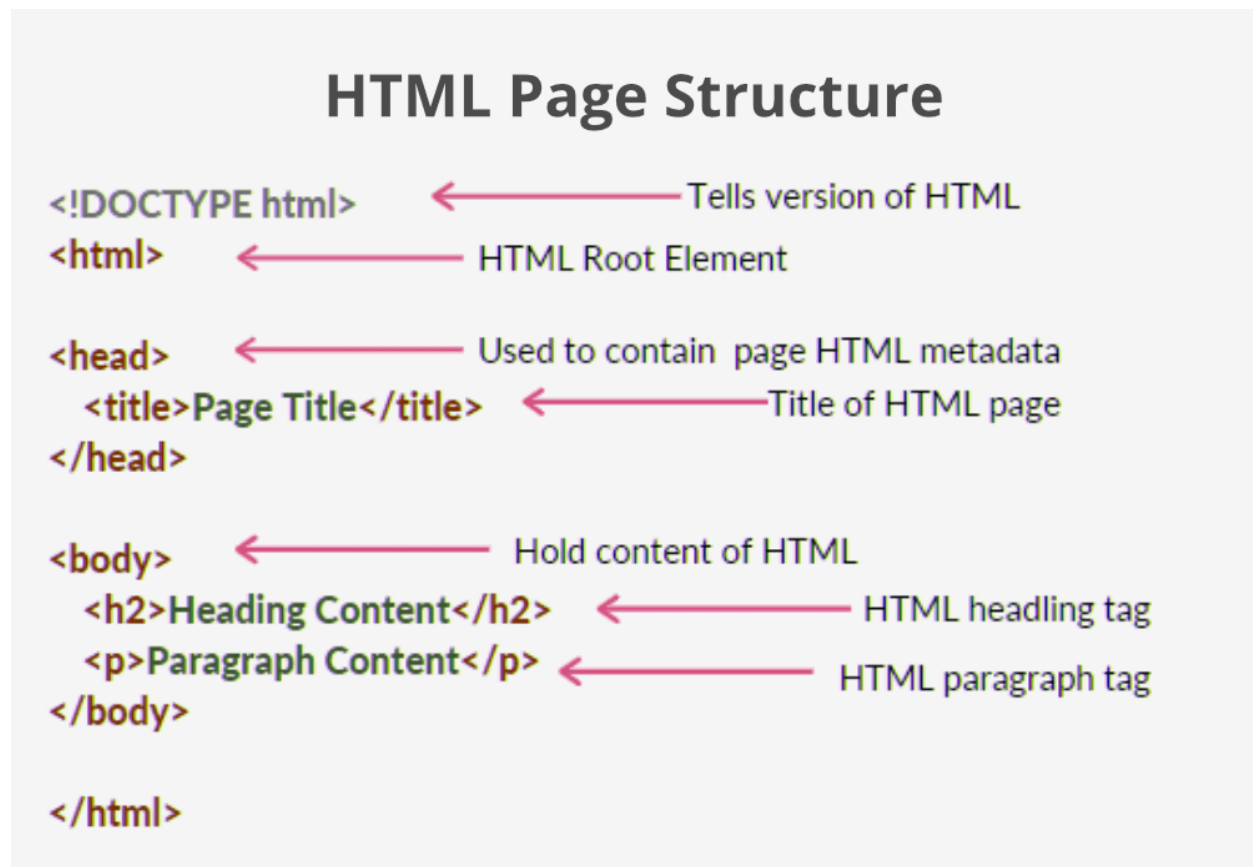
It implements encryption of data, Which mainly defines that the code becomes unreadable during the transferring process between a user's device and the server. It is necessary for the protection of confidential data and information such as log in credentials, numbers, credit card data and many more from being prone to being used in malicious activities

Apart from the protocols, Standards are the guide that help ensur that the web pages and sites are functional and provide consistency to users despite of their browser and devices.

Organizations produce these guidelines that therefore implement the way the page should be created through coding, how the display should show up no matter what device the user is using. Taking part and following these guidelines allows the website to be used globally and be considered "universal" which creates a consistent and the same experience no matter what browser the user is on

Creating a website is a process that needs collaboration that will involve core programming languages with a distinct role. The most common is the HTML– a known structure of a web

page, It gives definition to the layouts, imagines, paragraphs, links fonts, styles, coloring and spacing. It gives the page it's meaning order and purpose. CCS (Cascading Style Sheets) takes control of the styling and layout presentation. CSS transforms a basic and lifeless document into a visually engaging and appealing webpage. Javascript which is the language of interactivity, It can also be known as the brain of the website. It allows dynamic features that will connect with users actions. For example animation and interactive elements providing real time updates without having to reload an entire page



Building a website used to be a task catered for professionals and have expertise in coding. However, it has now turned into a process that has tools that are democratized in the process creating accessibility for a broader audience. These evolution and implementation of tools has made it possible for users to to have a prominent online presence.

To conclude, websites are a fundamental and useful part of our digital lives, These are the complex systems that build a foundation that ensures secure protocols and adhere to universal standards. As the internet will continue to evolve, websites will still be the primary gateway to collection of information, transaction and commerce and connection that will be built under accessible tools for users.

