To understand why web development is an essential part of the internet as we know it, we must first look at how the internet works.

The word “internet” is merely a portmanteau of the words “interconnected” and “networks”. Unsurprisingly, the Internet allows for various devices to share data over a global system of interconnected computer networks. A large part of the internet is the World Wide Web (WWW), an information space where information is shared through the format of web pages

In the earlier days of the Internet, the amount of data that could be shared per unit time (what we refer to as “internet speed”) was minuscule. Owing to this, it was infeasible to share entire packets of information and fully rendered pages with other users, since it would take ages to download a single file. Also, these files would be static and not interactable. In 1989, Tim Berners-Lee at CERN developed the World Wide Web, where information is shared in the form of web pages. Web Pages are a series of interconnected documents that contain instructions on how to render out the necessary information. The task of rendering is carried out by a software called a “web browser” installed on the client’s machine.

A web page is composed of several components. The broadest division of a website is the “front end”, the part of the webpage a user sees and interacts with, and the “back end”, the part of the website that runs on the server and processes data about the user’s interactions with the website.

The front end may be divided into the following three primary components:

**.#THE STRUCTURE (HYPERTEXT MARKUP LANGUAGE OR HTML):**

The chief component of a webpage is its structure. Information about this is written in a language called “Hypertext Markup Language”. Hypertext refers to text which may contain links to other information. Markup refers to a set of instructions about how information is to be displayed. Together, the HTML file (or .html file) can define what gets displayed, where it gets displayed, and what it links to. In fact, the browser only primarily renders out the HTML page and uses the other files only to modify the appearance or the information on the page.

**.#THE APPEARANCE (CASCADE STYLE SHEETS OR CSS):**

Introduced in 1996, Cascade Style Sheet files (or .css files) are used to alter the appearance of information on the webpage. This includes properties like fonts, position, colors, etc.

Without .css files, the website would look quite bland. Additionally, the limits to the appearance of the information would also limit how much information can actually be displayed, since an unorganized heap of text and images would become absolutely incomprehensible as the websites increase in complexity.

**.#THE BEHAVIOR (JAVASCRIPT OR JS)**

In the earlier days of the internet, websites used to be completely static. This meant that the information that would be rendered was always predetermined and written into the code. As the internet grew, however, static websites would prove to be insufficient. Without the ability to personalize the information exactly to the users’ needs, the potential of the World Wide Web would be wasted.

The solution to this problem would be found in the introduction of JavaScript, introduced in 1995. JavaScript (or .js files) allowed for the introduction of dynamic web pages. This meant the information to be displayed to each user could be tailored to their specific needs. JavaScript is unique in that it compiles very quickly, something that is essential to the proper functioning of the internet.

Dynamic Web Pages allowed for a more interactable website. The back-end of a website is a set of programs that run on the web server and are responsible for processing the data about the users’ interactions with the website. So, if you enter data like your email address or click on certain buttons to make an order for an item, the back end is responsible for processing that data and making sure it ends up in the right place. There are various types of back-end frameworks, some of which include Django for scripting, SQL for database management, etc.

**.#THE APPLICATIONS**

The advent of the internet has spawned an entirely new digital universe for people to interact with. Businesses have taken advantage of the accessibility of the internet to use it to provide services. Governments and administrations use it to provide and obtain information. Some applications of the internet, and by extension web development are:

1. Businesses and Services: Businesses like Amazon, Flipkart, Snapdeal, etc. provide networks to sellers to sell their products to customers. At the same time, companies like McDonald’s or Apple have their own websites for customers to order items directly, cutting out any middleman.
2. Social Media: Services like Facebook, Twitter and Instagram allow users to interact