Web Development

What is Full Stack Development?

Becoming a full-stack web developer seems to be a daunting task, especially if you are entirely new to the field of coding. As a beginner, you might think that you have a whole lot to learn within a short period.

The languages, frameworks, libraries, and databases, along with everything else required, are considered to be a list of tools for full-stack web development. The easiest way to begin any work is to strategize with a roadmap. A roadmap is the best way to kick-start your attempt to become a full-stack web developer

Scopes of a Full Stack Developer

According to the United States Bureau of Labour Statistics, there will be 8,53,000 open job roles for Full Stack Developers by 2024. The multi-dimensional job role will provide you with umpteen job opportunities as companies always optimize resource costs. The year 2021 is considered the best time to build your career as a Full Stack Developer. Companies are looking to hire professionals who know all the layers of an application and can take full leadership of a project

Simplest web developer path

Before moving into the languages and frameworks we have to know

HOW THE INTERNET WORKS?

We all know that internet is a vast network that connects computers all over the world. We also need to have a basic understanding of how computers communicate using browsers , domain names , hosting services, HTTP(Hypertext transfer protocol) and DNS(domain name system)

BASIC TOOLS

Lets start with the **BROWSER**

Browsers are a very important tool for web developers they are the means of which end users will view our applications. [Google chrome] is highly recommended as a main browser for testing but we will have to install all the major browsers like Firefox , edge etc. to ensure that the application will work properly in all of them.

TEXT EDITOR

A text editor is a type of computer program that edits plain text. Such programs are sometimes known as "notepad" software, following the naming of Microsoft Notepad. Text editors are provided with operating systems and software development packages, and can be used to change files such as configuration files, documentation files and programming language source code.[4] A text editor is a web developer's best friend .we need to understand everything it can do to help us write code as efficiently accurately and fast as possible.

VS CODE, ATOM, SUBLIME TEXT etc

FRONT-END DEVELOPMENT

All that you can see and interact with through your browser is front-end technology. Front-end web development, also known as client-side development is the practice of producing HTML, CSS, and JavaScript for a website or Web Application so that a user can see and interact with them directly. The challenge associated with front end development is that the tools and techniques used to create the front end of a website change constantly and so the developer needs to constantly be aware of how the field is developing. FRONT-END DEVELOPMENT, THEREFORE, INVOLVES CREATING THE VISUAL COMPONENT.

THE BUILDING BLOCKS OF WEBSITE

HTML is a Hypertext Markup language used in every website .it's the main building block of the web which provides the structure of the website. its acts as a skeleton for any web page.

CSS also known as cascading style sheet is a design language which is another important part of every website. its responsible for the design , colors and shape . it makes the webpage look beautiful and aesthetically pleasing

Javascript is a programming language .it basically helps us to interact with the website without necessarily needing to communicate with the server and allows us to make our webpage "think and act", which is all programming is all about.

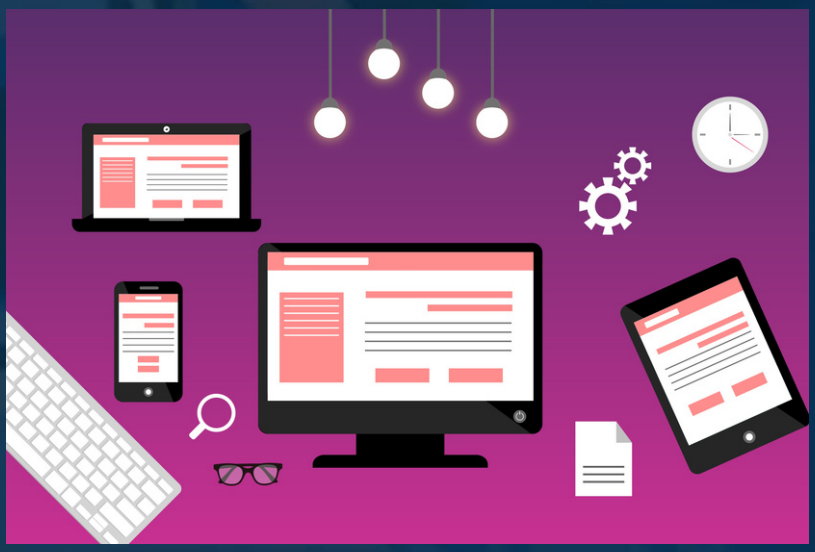
FRONT-END FRAMEWORKS

Using frameworks we can build a powerful single page applications to keep the components organized and easily built interactive UI. In a simple note , frameworks are packages pre-written standardized code in files and folders that allow the flexibility with the final design. One of the highly recommended framework is react.js. React is a library, not a full fledged framework that makes it one of the simplest frameworks to learn. The main focus of react is the building of UI of a single-page web app or mobile app.

Similar frameworks: Angular.js , vue.js ,Sass , Ember JS

BACK-END DEVELOPMENT

Back-end development refers to the server side of development where primarily focused on how the site works .Making updates and changes in addition to monitoring functionality of the site will be the primary responsibility . Back-end developers are most focused on a site's responsiveness and speed.



Picking a language depends on the source of application being built. For working with very large data sets PYTHON is recommended. For creating a simple web server , go for Node.js. if you already have a company in mind that you want to work for, find out what language there using on the back-end and upskill that.

In the end if you've learnt one programming language its much easier to learn another. An in-depth understanding of backend programming languages is one of the most important skills of a backend developer.

Java is another exemplary programming language for backend web development. The object-oriented programming language is widely used for developing enterprise-scale web applications along with the development of android applications, desktop applications, scientific applications, etc. The primary advantage of using Java is that it works on the Write Once Run Anywhere principle i.e, the compiled Java code can be executed on any platform that supports Java without the need for recompilation.in particular, was designed from the start to be used on the server. Spring and Java Server Faces are two popular Java frameworks.

Though Python is quite famous among individuals for its compatibility with advanced technologies like Machine Learning, Internet of Things (IoT), Data Science, etc One of the major advantages of using Python for web development is its huge collection of standard libraries that make the work of developers comparatively easier and efficient. The additional prominent and unique features of Python such as better code readability. It's adaptable and Backend Sdevelopment is done with Python frameworks like Django and Flask.

Ruby is a general-purpose, interpreted programming language that supports various programming paradigms such as procedural, functional, and object-oriented programming. The language is being widely used for web development across the world and is very much recommended to beginners for getting started with backend web development as it is comparatively easier to learn. Alike Python, Ruby also focuses on increasing the developers' productivity that eventually fastens the web development process.

C# is one of those few languages that is constantly ranking under the top 5 programming languages at various standard indices for the last few years. Though, you need to know that this general-purpose language was initially developed by Microsoft primarily for the .Net framework. Alongside, backend web development, now C# is extensively being used in multiple areas such as the development of Windows applications, game development, etc. The language provides you with various enriching features such as faster compilation, interoperability, scalable & updateable, component-oriented & structured language, and many others.