The Future of Web Development – Plan

# Introduction.

## What is Web Development?

Web development is the building, testing and maintenance of websites; it’s the work that happens behind the scenes to make a website look great, work fast and perform well with a seamless user experience.

It involves web developers who should be proficient in various languages, frameworks and libraries. The language that they work on determines the type of task they perform and the platform on which they are working on.

Since the conception of Web in 1989, the technologies revolving around it have exponentially developed at a mind boggling pace. Today, internet connects everyone, and websites are a major medium of communication of how one works around the world.

## Why Web Development?

Web Development is a very versatile field. Involving a lot of activities and tasks that needs to be performed before bringing something to a production level. That is what makes a dev unique, a dev has the ability to do multiple things that allow them to stand out in a field of career opportunities. It is quite a fun activity that can be challenging, bring out ones creativity and help them think for solutions for problems that would be experienced from the user perspective.

Despite being demanding, web dev has the added advantage of allowing one to start a project, design it, and make the minute of the changes up to their own specifications. You get to work for yourself.

## How to do it?

Web Development can be split into two domains, specifically, Front end web development and Backend web development.

Frontend involves, HTML, CSS, JS, frameworks and etc. They help you design and structure a website from the user perspective, how the user will interact with it and it good it will look.

Backend involves, Nodejs, Express, Django, databases and etc. They help you manage requests that a user makes and how that website should respond accordingly. Create, read, update and delete data when required.(data management) .

A process of doing both is called full stack web development and a person who can do both is known as a Fullstack Web Developer. There are various tech stacks that can be used, such as MERN, MEAN, and others.

# Main Content. Future aspects of web development.

## Introduction.

The future of web development is nowhere in the dark, as every industry segment requires a website to take its products or services online. The future of web development is driven by technology. Some main components that will make web development in the future even more interesting are,

### Artificial Intelligence.

AI is the simulation of human intelligence or even mimicking it by processes of machines, and computer systems. Some examples are natural languages processing, speech recognition and machine vision. It works on the foundation of machine learning algorithms. They take in large stream of data, analyse it for correlations and patterns, and use them to make predictions of future state.

### Machine Learning.

ML is branch of Artificial Intelligence. The process of taking in data, using algorithms to eliminate the human intervention and make predictions for what might happen in the future based on patterns and correlations is what ML is all about.

### Internet of Things (IoT).

The IoT describes the network of physical objects—“things” – that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.

While IoT and Web Dev have their own nuances. Being able to make websites and web application that has the ability to interact with technology gives and web dev an upper hand.

### Differences.

AI works as a computer program, ML is a simple concept machine that takes data and learns from it. AIs goal is to simulate natural intelligence to solve complex problem, MLs goal is to learn from data on certain task to maximize the performance of the machine. AI is decision making, Ml allows systems to learn new things from data. AI leads to intelligence or wisdom, ML leads to knowledge.

IoT however requires a person to not only learn the aspects of web development but also adapt to the convergence of multiple technologies, real-time analytics, including ML, ubiquitous computing, wireless sensors, controls systems, automation, embedded systems, and such.

## How can they be applied to web development?

Artificial Intelligence and Machine Learning are popular technologies that allow web applications to learn and observe from a user's preferences and habits.

Frameworks are best to be used by web developers to help them implement in their own field. Some popular frameworks are, TensorFlow, Apache Mahout, Microsoft Cognitive Toolkit, Apache Singa,

## Possible Outcomes and Conclusion.

1. Helping to construct a website without staring from the very scratch.
2. Analysing up the content and user preferences to personalize the site and make it easy for the users.
3. Assistance.
4. Enabling an average technology knowledge user to manage their website without any problems or issues.
5. Chatbots for immediate user interaction.
6. Ability to connect everyday objects, kitchen appliances, cars, thermostats, etc for seamless communication between people, processes and things.