

HOW DOES THE WEB WORKS

How does the web works

Have you ever wondered what happens when you browse your favourite websites?

How those attractive websites get to load up in your browser within a fraction of a second.

There is an epic journey happening every time you clicked that search button on your browser.

In this article, you and I are going to shift from an average internet user to the person who still uses the internet all the time but knows a little bit about what's going on behind the scenes.

Defining Technical terms

Understanding, the web can be arduous due to a lot of technical terms. Unfortunately, some of them are mandatory and you will have to deal with them.

These terms will not make much sense to you in the beginning, but just read them and you will see the dots connecting later in this journey.

I have tried to explain these terms in the simplest way for better understanding so that you and I can continue on this journey -

URL - Uniform Resource Locator

It's basically something that we use to tell the browser what we actually looking for.

For our reference, we will use our favourite website <https://www.udemy.com/>

Protocols

Continuation of how the web works

Protocols are the certain set of rules that the client-side (browser) and server-side follow to communicate with each other.

HTTP - Hypertext Transfer Protocol

It's the first part of a URL indicates which protocol the browser will follow This part is known as HTTP

ISP - Internet Service Provider

They connect the client to the servers and are usually a company or operators.

IP Address - Internet Protocol

An IP address is a unique address that identifies a device on the internet or on the local network.

Every computer on the internet has an IP address that it uses to identify and communicate with other computers.

It looks like this 104.16.66.85

Domain Name

A domain name is the address of your website that you type in the URL bar to visit.

The domain name is used by the DNS to look up the corresponding IP address.

DNS - Domain Name System

It's a decentralized database that converts the domain name (<https://www.udemy.com/>) into their corresponding IP address (104.16.66.85).

It's like the phonebook of the internet having the name (domain name) and phone number (IP address) of everyone when you click on the name it will directly call the phone number you do not need to memorize the IP address.

WHAT YOU NEED TO BECOME A WEB DEVELOPER

Steps to Become a Web Developer: Skilled web developers must complete formal education, gain practical experience, build a resume and portfolio, and, in some cases, earn additional certifications. Find out more about how each step can advance your career below.

1. Earn Degree(s)

An aspiring web developer must first complete an education to develop basic coding and programming skills. In most cases, this is a computer science degree program with core courses in systems design, data management, and the essential programming languages used by industry professionals. An associate degree in computer science typically takes two years to complete, while a bachelor's degree in computer science could require four years. Senior-level roles may require more advanced education, like a master's or a doctorate, which include several more years beyond a bachelor's. The level of education required for employment varies among companies and sectors. While it is possible to land an entry-level web development position with an associate degree or certificate, a bachelor's degree will open up a wider range of opportunities and better position you for future advancement.

2. Pursue Internship(s): Landing a solid internship as a new web developer provides vital work experience. Internship opportunities give learners the chance to apply their knowledge and develop new skills as they engage with clients and collaborate with other developers. Some web developer degree programs provide internship placements. If your program does not provide placements, ask around your professional network. Employers and corporate partners often sponsor internship opportunities for new web developers.

3. Build Your Portfolio: Keeping an updated portfolio that highlights the quality and breadth of your accomplishments will appeal to potential employers. Some companies may require a portfolio when applying. Capstone course materials, completed work from past internships, and aspects of current side projects all make great portfolio items. Web developer programs often feature resources and opportunities to help build relevant portfolios.

4. Earn Certification(s): Certificates in web development offer several distinct advantages. These programs attest to any additional skills or coding competencies learners possess and keep professionals up to date with the latest developments in this evolving field. A certificate can also give applicants an extra boost on the job hunt. Some schools offer standalone certificates in front-end or full-stack web development. Conversely, businesses like Microsoft, Adobe, and Amazon offer exam-based certifications in areas like JavaScript and cloud development. Zend has similar opportunities in PHP training. Certification renewal requirements vary by provider.

5. Create Your Resume: Every aspiring web developer needs a concise and informative resume. This document is an extension of your professional self, so it's important to know how to build a resume that accurately conveys your value and worth. Successful resumes highlight the skills and qualifications that make individuals stand among other job candidates. Applicants should list their programming competencies and coding languages, education and professional experience, and any other technical skills or industry certifications.

WHY I AM LEARNING WEB DEVELOPMENT

1 Now Hiring! There Are Web Dev Jobs Available

Given that there will be approximately **1.4 million computing jobs available in 2020**, with only 400,000 qualified developers to fill them, those interested in acquiring in-demand skills can certainly benefit from having web development and coding in their resume. It's safe to say there is, and will continue to be, high demand for web developers. You won't have to worry about finding jobs for web developers any time soon.

2 A Great Income According to U.S. News & World Report, certified professional web developers earn an average salary of \$64,970 nation wide.

Salary shouldn't be the only factor when deciding whether or not to learn web development, but it should be taken into consideration. With the average household income in the United States being **\$56,516 in 2017**, average income for web developers looks pretty nice.

3 No Wasted Time in Learning How to Code

If you're serious about learning how to code, there are several options for web dev education. You can do a CS degree, teach yourself online, or do a bootcamp. All are great options; it really depends on how quickly you want to get out into the workforce. The benefit of bootcamp is that you can know how to code, and code well, in 13 weeks. 13 weeks! It's an intense 13 weeks, but you will have people dedicated to your success in learning and finding a job throughout your bootcamp experience. Before you know it, you'll be in a career you're finally excited about!

4 You Can Work From Anywhere

Have freedom to work whenever you want from wherever—imagine that. All you need for web development is the internet and a laptop. Not all jobs are remote, but if that is your preference, there are remote jobs out there for you.

CONTINUATION OF WHY I AM LEARNING WEB DEVELOPMENT

5 You Can Work at an Awesome Tech Company

Tech is where to be right now. Because there is such a high demand for web developers and so little trained developers to fill those positions, tech companies are doing an excellent job at making work like very comfortable, if not enjoyable. If you choose to work for a tech company as a web developer, you'll enjoy free food, ping pong, and rad coworkers.

6 There Are Always Freelance Opportunities

If you're the type that likes to work project to project on your own terms, then being a **freelance web developer** is for you. Once you join the web dev community, you will find that there are plenty of opportunities for you to freelance. Coming right out of bootcamp, you can charge \$50 an hour—depending on where you live—for your work. And, that will only increase as you become more skilled.

7 It's Creative and Fun

Web development gives you the opportunity to express yourself creatively on the internet. If you have an idea you would like to try as you discover your web dev skills, try it out. Web dev is a fun, creative experience.

Deciding a career will always be a difficult decision, especially when you're unsure of what the outcome will be after you've invested time and money into learning a new trade. Fortunately, the high demand, easy-to-learn, fun-to-experience life of a web developer is always a great choice for someone ready to have an exciting career in code.