

What Are Web Technologies?

- Web technologies are the various tools and techniques that are utilised in the process of communication between different types of devices over the internet.
- To understand this term in a better manner, lets break it down into two pieces: web and technology.
- The web, in this case, refers to the World Wide Web, more commonly known as WWW.

What Are Web Technologies?

contd.

- It first came into being in 1989 when famous scientist and engineer, Tim Berners-Lee, came up with an efficient mechanism to share resources between scientists all over the world.

What Are The Different Types Of Web Technologies?

- Since we have a limited space to examine the wide array of web technologies available, we have picked a few that are used most often by both beginners and experts in the industry.
- The basics, which will cover web browsers and some web app development fundamentals 2.
- Programming languages and frameworks which are used in the development of websites 3.

What Are The Different Types Of Web Technologies? contd.

- Databases that are used at the backend to store data required or collected by websites 4.
- Some protocols, that is, rules for communicating on the web 5.

The Basics

- In this section, we will talk about web browsers and some other web fundamentals.

Web Browsers

- Web browsers, often just called browsers, make it possible for us to view all the resources that are part of the World Wide Web.
- You can think of the server as a combination of software and hardware that receives the clients requests and then sends the requested resource to the client.
- Whenever you enter a URL into a browsers address bar, it relays your request to the server and then fetches and displays whatever the user requested for.

Web Browsers contd.

- Some popular web browsers are Opera, Mozilla Firefox, Google Chrome, and Safari.

Frontend Vs Backend Development Technologies

What is web development?

- Web development refers to the process of creating websites.
- This process is based on a number of steps, which we will cover in more detail when we explore the tools involved in each process.

The two parts of a typical website

- As we go further, we will discuss individual web development technologies and tools used to create websites.
- But before that, we need to be clear on the two distinct parts of a website: the frontend and the backend.
- Frontend refers to all those parts of a website that a user can see on their screen and interact with.

The two parts of a typical website contd.

- A typical user is generally unaware of what goes on at the backend.

Security considerations

- Web development takes into account many security considerations, such as data entry error checking through forms, filtering output, and encryption.
- Scripts can be used to exploit Web sites by granting unauthorized access to malicious users that try to collect information such as email addresses, passwords and protected content like credit card numbers.
- Some of this is dependent on the server environment on which the scripting language, such as ASP, JSP, PHP, Python, Perl or Ruby is running, and therefore is not necessarily down to the Web developer themselves to maintain.

Security considerations contd.

- However, stringent testing of Web applications before public release is encouraged to prevent such exploits from occurring.
- A basic understanding of information technology security concerns is often part of a Web developer's knowledge.
- Because new security holes are found in Web applications even after testing and launch, security patch updates are frequent for widely used applications.

Security considerations contd.

- It is often the job of Web developers to keep applications up to date as security patches are released and new security concerns are discovered.