

EX1034

History of Web Browsers

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Web browsers play an important role in connecting users to the World Wide Web. Whenever we have to search for anything, we open Chrome. Well, Chrome is the most widely used web browser in the world. However, there have been many browsers developed before and after Chrome. Some of them still exist and are being used, whereas others got replaced and even shut down. In this article, we are going to take a look at the epic history of web browsers.

What is a Web Browser?

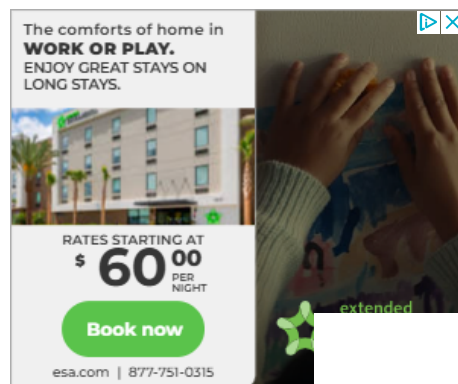
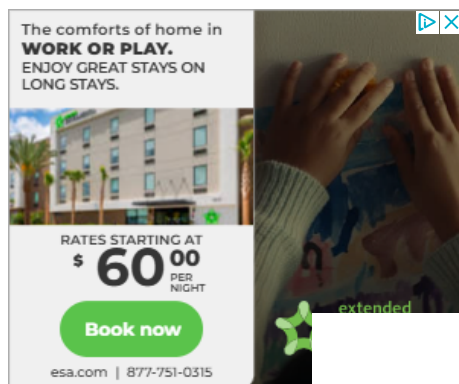
A web browser is an application through which we can access websites on the **World Wide Web** (www). It provides users with a medium through which they can interact with a web server as it fetches the data and displays it as a web page.

In today's time, there are various web browsers available. Each web browser has some unique characteristics that are distinguished depending on features like speed, security, extensions, etc. Right now, Google Chrome is the most used browser in the world; however, some other popular browsers are being used, like Mozilla Firefox, Opera, Microsoft Edge, etc.

History of Web Browsers:

You might wonder that if every web browser provides an interface to the user and allows them to connect with the web, then why are there so many web browsers in the first place? If we look at the history of web browsers, we can tell a lot about their special features and developing techniques.

Before web browsers came into existence, computers were more like boxes that used command-line interfaces to perform some tasks. The development of web browsers revolutionized the entire way of interacting with a computer.

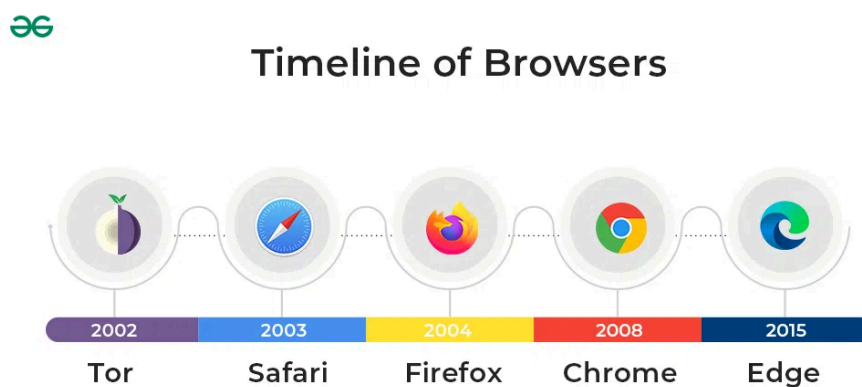


- In 1990, a computer scientist Tim Berners-Lee, developed the first ever browser named “**WorldWideWeb**”, at **CERN** (A European organization for nuclear research). It was indeed an extraordinary development as it was the only web browser present at that time which provided a **user-friendly interface**.

- In 1993, everyone started becoming familiar with the concept of web browsers and was curious to develop the same. This led to the invention of the “**Mosaic**” by **NCSA** (National Centre for Supercomputing Applications) at the University of Illinois. It gained massive popularity as it was the first graphical browser that demonstrated the use of multimedia (images) on the web.
- In 1994, another browser called “**Netscape**”, founded by Andreessen turned out to be a success. It was the first web browser to be made public and gained immense popularity.
- In 1995, the world witnessed a race to develop better web browsers with attractive versions. It was this year when Microsoft developed the “**Internet Explorer**” and released it resulting in so-called “**browser wars**”.
- The war between Internet Explorer and Netscape continued for a while. In 1996, Opera Software released its web browser “**Opera**”.
- In 1998, Netscape made its code open source which led to the birth of “**Mozilla**”. It later evolved into the **Mozilla Firefox** web browser, which eventually gained user’s attraction.
- In 2003, Apple launched “**Safari**” a web browser particularly made for devices with the Macintosh operating system. Later it was available for Windows users too and even had a mobile version.
- In 2008, the “**Google Chrome**” web browser, founded by **Google**, came into existence and started taking over the entire market of web browsers and ruling them. It attracted users all across the globe because of its high-speed rendering, improved web performance and well-designed interface. To date it has maintained its position as the most used web browser.
- Later in 2015, Internet Explorer was renamed as “**Microsoft Edge**”. In today’s time, Microsoft Edge comes preinstalled on many Windows devices. Also, several other browsers like **Brave** and **Vivaldi** came into the game and are used by some users for their unique features.

Timeline of Browsers:

Given below is the timeline of browsers found till date:



History of Web Browsers

An Overview of Web Browser Functionality:

Web browsers are software programs that provide an interface or medium for users to connect with the web. It receives requests sent by users, fetches data from web servers, and then displays the result to the user.

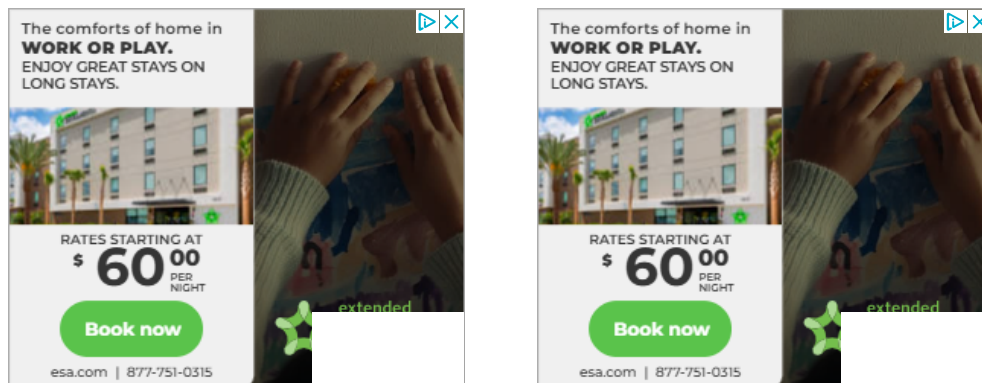
- The user always searches in the form of a URL (for example, www.geeksforgeeks.org) and sends a request to the browser.

- Then the browser converts the URL into a numeric value, which is called an IP address, using DNS, or Domain Name System.
- Through the IP address, web browsers generate a request, which is sent to the web servers.
- The data retrieved from the server (which is in the form of code) is parsed, and then when the entire document object model is created, it is presented to users in the form of web pages.

Advantages of using Web Browsers:

- A web browser's main role is to provide an interface or medium through which users can search on the web and access various websites.
- Users can visit different websites by just entering the URL of the website on the web browser. Thus, it makes surfing on internet easier and quicker.
- Web browsers also ensures secure and safe access to websites and prevents users' device from any malicious software. They take special care of users' privacy by data encryption.
- Multimedia (images and videos) is also supported by web browsers. It displays multimedia elements using CSS and JavaScript.
- Several web browsers provide features to sync devices, thus making it easier for the user to access their personalized settings on multiple devices.

In current times, users demand a faster, more efficient, and more secure browsing experience. Keeping this in mind, various features are being constantly added, and the web browsers are updated from time to time. Every browser has basic features like an address bar, navigation buttons, a home button, a refresh, history, downloads, etc.



Some more features of web browsers present in today's time are:

- Web browsers keep on making updates, keeping one of the most important things in mind, which is a “user-friendly experience”. For example, Chrome, being the most used web browser, offers attractive features and provides users with an easy and quick environment to work in.
- As technology is increasing in modern times, so is the threat of cybercrime or virus attacks. Web browsers now provide a secure setup for users, taking special care of their privacy.
- Web browsers also offer a wide range of extensions and add-ons to improve the functioning of web browsers and make them more efficient.
- Special features like allowing devices to sync, thus preventing loss of data, and adding voice search, screen reading, etc. have made it possible for every person to benefit from web browsers.

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