

WWW, Web Servers and Web Browsers, Webpage, Website

1. World Wide Web (WWW)

The **World Wide Web (WWW)** is a collection of websites and webpages that people can access using the internet. It helps connect information globally so users can search, share, and interact with digital content.

The **WWW is not the same as the Internet**. The internet is the physical infrastructure (the cables and networks), while the WWW is the system that organizes and links information across websites.

How Does the WWW Work?

- ❖ Websites and webpages are stored on computers called **web servers**.
- ❖ When you type a website's address (URL) into a web browser, your request is sent over the internet.
- ❖ A **web server** receives the request, finds the correct webpage, and sends it back to your **web browser** to display.

2. Web Server

A **web server** is a specialized computer that stores and delivers webpages to users when they request them.

Main Functions of a Web Server:

1. **Storing webpages and websites** – Websites are saved on the server's hard drive.
2. **Handling requests** – When a user visits a website, the web server processes the request and sends back the correct webpage.
3. **Managing security** – Some web servers have encryption to protect user data.

Popular Web Servers:

- ❖ **Apache** (Used by many websites worldwide)
- ❖ **Nginx** (Fast and efficient for large websites)
- ❖ **Microsoft IIS** (Used for Windows-based web applications)

Think of a web server like a **post office**—when you request a webpage, it finds the right file and delivers it to your browser.

3. Web Browser

A **web browser** is the program or app that allows you to view websites. It translates computer code into images, text, and videos so you can interact with webpages.

Popular Web Browsers:

- ❖ **Google Chrome** (Most widely used browser)
- ❖ **Mozilla Firefox** (Open-source and privacy-focused)
- ❖ **Microsoft Edge** (Integrated with Windows)
- ❖ **Safari** (Designed for Apple devices)

How Does a Web Browser Work?

1. You type a website address (URL) into the browser.
2. The browser contacts the web server and requests the webpage.
3. The web server sends the webpage files (text, images, code).
4. The browser interprets the files and displays the webpage.

Web browsers also **save cookies, manage bookmarks, and run JavaScript** to make websites interactive.

4. Webpage

A **webpage** is a single digital document on the internet that contains text, images, videos, links, or interactive elements.

Each webpage has a unique **URL (address)** like: <https://www.example.com/news.html>

Types of Webpages:

- ❖ **Static Webpage** – Displays fixed content (e.g., a simple article).
- ❖ **Dynamic Webpage** – Changes based on user interaction (e.g., social media pages).
- ❖ **Interactive Webpage** – Allows users to input information (e.g., online forms).

A webpage is like a **page in a book**—each one contains its own information but is connected to others through links.

5. Website

A **website** is a collection of related webpages grouped under one domain name, like: www.microsoft.com

Websites can have multiple sections, such as:

- ❖ **Homepage** – The main page of the website.
- ❖ **About Page** – Information about the company or person.
- ❖ **Contact Page** – Ways to get in touch.
- ❖ **Blog or News Section** – Regular updates or articles.

Types of Websites:

1. **Informational Websites** – Wikipedia, news sites, educational pages.
2. **E-commerce Websites** – Amazon, eBay, online shopping stores.
3. **Social Media Websites** – Facebook, Instagram, Twitter.
4. **Search Engine Websites** – Google, Bing.
5. **Personal or Portfolio Websites** – A site to showcase work or hobbies.

Each website is hosted on a web server and visited using a web browser.

How Do All These Work Together?

1. You **open a web browser** and type in a website's URL.
2. The browser **sends a request** to the **web server** where the website is stored.
3. The web server **sends back** the webpage files.
4. The browser **displays the webpage**, allowing you to read, interact, or navigate other pages.