Webservers

What is a Web Server?

A web server is a computer system or software that delivers websites and web applications to users when they request them through a browser. It handles incoming requests for content (like a webpage or an image) and sends the appropriate files back to the user's device.

For example, when you type "**www.example.com**" into your browser, a web server processes the request and delivers the website to you. Webservers can be local (hosted locally) or remote (online)

Some common web servers include:

- **Apache:** An open-source and widely used web server.
- **Nginx (pronounced Engine-X):** Known for its high performance and efficiency.
- **IIS (Internet Information Services):** A web server developed by Microsoft.
- **LiteSpeed:** A faster, lightweight alternative to Apache.

Local Web Servers

A local web server is set up on your own computer and is mainly used for development and testing purposes. It allows you to build and preview websites before making them live on the internet. Examples of tools for setting up a local web server include: XAMPP, WAMP, MAMP, Laragon, and Local by Flywheel

When you use a local web server, your website is only visible on your computer. This is ideal for trying out new designs or features without affecting your live site.

Types of Local Web Servers

Online (Remote) Web Servers

Online web servers are hosted on the internet, allowing your website to be accessible to users worldwide. These servers are managed by hosting providers and come in various types, such as:

- **Shared Hosting:** Multiple websites share the same server resources.
- **VPS (Virtual Private Server):** A virtual section of a physical server dedicated to your website.
- **Dedicated Hosting:** A physical server entirely dedicated to your website.
- **Cloud Hosting:** Websites hosted across multiple servers for scalability and reliability.

Once your website is ready on a local server, you upload it to an online web server, so it becomes accessible to everyone.

Why Do You Need a Web Server?

- **Local Servers:** Enable safe testing and development without risking live content.
- **Online Servers:** Ensure your website is live and accessible to your audience.