



Topic: Web Pages Retrieval

How webpages are retrieved:

When a user enters a URL into a web browser, several steps are involved in locating, retrieving, and displaying the web page on the device. Here's a simplified step-by-step process:

1. The web browser first checks its cache to see if it already has a copy of the web page. If it does, it displays the cached copy, which is faster than retrieving the page again from the internet.
2. If the web page is not in the cache, the web browser sends a request to the Domain Name System (DNS) server to translate the domain name in the URL into an IP address.
3. The DNS server then searches for the IP address associated with the domain name in its database and returns the IP address to the web browser.
4. The web browser then sends a request to the web server specified by the IP address to retrieve the web page.
5. The web server receives the request and sends the web page back to the web browser as a series of HTML, CSS, and JavaScript files.
6. The web browser interprets the HTML files and renders the web page on the device screen, displaying images, videos, and other multimedia content according to the web page's layout.

In summary, when a user enters a URL into a web browser, the browser uses DNS to translate the domain name in the URL into an IP address, sends a request to the web server specified by the IP address, and retrieves the web page as a series of HTML, CSS, and JavaScript files, which are then rendered by the browser to display the web page on the device screen.

