5Basics: anatomy of url

This article discusses Uniform Resource Locators (URLs), explaining what they are and how they're structured.

What is a URL?

URL stands for "Uniform Resource Locator." It is a reference or address used to access resources on the internet. A URL specifies the location of a resource and the means by which it can be accessed, such as a web page, a file, an image, or a video. URLs are used in web browsers to navigate the internet and are also commonly seen in email messages and various types of digital documents.

A URL is nothing more than the address of a given unique resource on the Web. In theory, each valid URL points to a unique resource. Such resources can be an HTML page, a CSS document, an image, etc.

A URL typically consists of several components, which are organized in a hierarchical manner:

A URL consists of ten parts: the scheme, subdomain, top-level domain, second-level domain, subdirectory, parameter, port, path, query, and fragment. While a URL doesn't have to contain all of these parts at once, it will always have at least three of them.

Several components of a URL (Uniform Resource Locator):

Scheme: This indicates the protocol used to access the resource, such as "http://" or "https://".

Domain or host: This is the address of the server where the resource is located, like "www.joseph.com".

Subdomain For example, in the URL "<https://blog.joseph.com>," "blog" is a subdomain of "joseph.com.".

Top-level domain: It is the last part of a domain name and appears to the right of the rightmost dot in a web address (e.g., .com, .net, .edu, .org etc.).

Second-level domain: is the part of a domain name that organizations and individuals have control over, allowing them to create unique web addresses under a specific top-level domain. It plays a crucial role in web identity and branding (e.g., second-level-domain.top-level-domain).

Port (optional): It specifies the port number to use when connecting to the server. If omitted, the default port for the scheme is used (e.g., 80 for HTTP).

Path: It shows the specific location or directory on the server where the resource is located, like "/path/to/resource".

Query (optional): This part provides additional parameters for the resource, often used in dynamic web pages, like "?id=123&name=example".

Fragment (optional): It identifies a specific section within the resource, typically used in long documents, like "#section2".

Parameter(optional): A "parameter" in a URL typically refers to the part of the URL that follows the question mark ? and is used to pass data to a web server when making an HTTP request (e.g., <https://www.joseph.com/search?query=URL+parameters&page=2>)

Subdirectory: A "subdirectory" in a URL refers to a specific directory or folder that is located within a parent directory on a web server. (e.g., https://www.joseph.com/blog/articles/how-to-create-a-website)