HTTP.

Hypertext Transfer Protocol (HTTP)

Node.js has a built-in module called HTTP, which allows Node.js to transfer data over the Hyper Text Transfer Protocol (HTTP).

To include the HTTP module, use the require() method:

The HTTP module can create an HTTP server that listens to server ports and gives a response back to the client.

Use the createServer() method to create an HTTP server:

HTTP: When the data transfer in HTTP protocol it just travels in the clear text format.

An HTTP request is made by a client, to a named host, which is located on a server. The aim of the request is to access a resource on the server. To make the request, the client uses components of a URL (Uniform Resource Locator), which includes the information needed to access the resource.

Whenever you visit a page on the web, your computer uses the Hypertext Transfer Protocol (HTTP) to download that page from another computer somewhere on the Internet.

Let's step through that process.

Step 1: Direct browser to URL

When we want to browse the web, we can use many types of computers (like laptops, desktops, and phones), as long as the computer has a browser application installed.

The user either types a Uniform Resource Locator (URL) in the browser or follows a link from an already opened page:

Picture here

Notice something about that URL: it starts with "http". That's a signal to the browser that it needs to use HTTP to fetch the document for that URL.

Step 2: Browser looks up IP

We typically type nice human-friendly URLs into browsers, like "khanacademy.org" and "wikipedia.org". Those domain names map to IP addresses, the true location of the domain's computers. That's handled by the Domain Name System.

The browser uses a DNS resolver to map the domain to an IP address:

Picture here

Step 3: Browser sends HTTP request

Once the browser identifies the IP address of the computer hosting the requested URL, it sends an HTTP request.

Picture here

An HTTP request can be as short as two lines of text:

GET /index.html HTTP/1.1

Host: www.example.com

The first word is the HTTP verb: "GET". There are other verbs for other actions on the web, like submitting form data ("POST").

The next part specifies the path: "/index.html". The host computer stores the content of the entire website, so the browser needs to be specific about which page to load.

The final part of the first line specifies the protocol and the version of the protocol: "HTTP/1.1".