AJAX is not a programming language.

AJAX is a technique for accessing web servers from a web page.

AJAX stands for Asynchronous JavaScript And XML.

AJAX just uses a combination of:

* A browser built-in XMLHttpRequest object (to request data from a web server)
* JavaScript and HTML DOM (to display or use the data)

1. An event occurs in a web page (the page is loaded, a button is clicked)

2. An XMLHttpRequest object is created by JavaScript

3. The XMLHttpRequest object sends a request to a web server

4. The server processes the request

5. The server sends a response back to the web page

6. The response is read by JavaScript

7. Proper action (like page update) is performed by JavaScript

XML HttpRequest Object

All modern browsers support the XMLHttpRequest object.

The XMLHttpRequest object can be used to exchange data with a server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page

var xhttp = new XMLHttpRequest(); //creating a xml http request object

Send a request to a server

The XMLHttpRequest object is used to exchange data with a server.

To send a request to a server, we use the open() and send() methods of the XMLHttpRequest object.

xhttp.open("GET", "ajax\_info.txt", true);

xhttp.send();

open(method, url, async) Specifies the type of request

method: the type of request: GET or POST

url: the server (file) location

async: true (asynchronous) or false (synchronous)

send() Sends the request to the server (used for GET)

send(string) Sends the request to the server (used for POST)

Use post when

* A cached file is not an option (update a file or database on the server).
* Sending a large amount of data to the server (POST has no size limitations).
* Sending user input (which can contain unknown characters), POST is more robust and secure than GET

The ****readyState**** property holds the status of the XMLHttpRequest.

The ****onreadystatechange**** property defines a function to be executed when the readyState changes.

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| **Property** | **Description** |
| onreadystatechange | Defines a function to be called when the readyState property changes |
| readyState | Holds the status of the XMLHttpRequest. 0: request not initialized 1: server connection established 2: request received 3: processing request 4: request finished and response is ready |
| status | 200: "OK" 403: "Forbidden" 404: "Page not found" For a complete list go to the [Http Messages Reference](https://www.w3schools.com/tags/ref_httpmessages.asp) |
| statusText | Returns the status-text (e.g. "OK" or "Not Found") |

The ****status**** property and the ****statusText**** property holds the status of the XMLHttpRequest object.