

AJAX: Ajax is an acronym for Asynchronous Javascript and XML. It is used to communicate with the server without refreshing the web page and thus increasing the user experience and better performance.

There are two types of requests synchronous as well as asynchronous. Synchronous requests are the one which follows sequentially i.e. if one process is going on and at the same time another process wants to be executed, it will not be allowed that means the only one process at a time will be executed. This is not good because in this type most of the time CPU remains idle such as during I/O operation in the process which are the order of magnitude slower than the CPU processing the instructions. Thus to make the full utilization of the CPU and other resources use asynchronous calls.

Advantages of AJAX:

- Speed is enhanced as there is no need to reload the page again.
- AJAX makes asynchronous calls to a web server, this means client browsers avoid waiting for all the data to arrive before starting of rendering.
- Form validation can be done successfully through it.
- Bandwidth utilization – It saves memory when the data is fetched from the same page.

Disadvantages of AJAX:

- Ajax is dependent on Javascript. If there is some Javascript problem with the browser or in the OS, Ajax will not support.
- Ajax can be problematic in Search engines as it uses JavaScript for most of its parts.
- Source code written in AJAX is easily human-readable. There will be some security issues in Ajax.
- Problem with browser back button when using AJAX enabled pages.

JSON: JSON stands for JavaScript Object Notation. It is a text-based data interchange format to maintain the structure of the data. JSON is the replacement of the XML data exchange format in JSON. It is easy to struct the data compare to XML. It supports data structures like array and objects and the JSON documents that are rapidly executed on the server. It is also a Language-Independent format which is derived from the JavaScript. The official media type for the JSON is application/json and to save those file .json extension.

Advantages of JSON:

- JSON stores all the data in an array so data transfer makes easier. That's why JSON is the best for sharing data of any size even audio, video, etc.
- Its syntax is very easy to use. Its syntax is very small and light-weighted that's the reason that it executes and responds in a faster way.
- JSON has a wide range for the browser support compatibility with the operating systems. It doesn't require much effort to make it all browser compatible.
- On the server-side parsing the most important part that developers want, if the parsing will be fast on the server side then the user can get the fast response, so in this case, JSON server-side parsing is the strong point compare tot others.

Disadvantages of JSON:

- The main disadvantage of JSON is that there is no error handling in JSON, if there was a slight mistake in the JSON script then you will not get the structured data.
- JSON becomes quite dangerous when you used it with some unauthorized browsers. Like JSON service return a JSON file wrapped in a function call that has to be executed by the browsers if the browsers are unauthorized then your data can be hacked.
- JSON has limited supported tools that we can use during JSON development.

AJAX

JSON

AJAX is utilizing for planning the internet page appropriately, particularly where the page needs a few server-side information without reviving the same.

JSON isn't utilizing for only planning the net page. In fact, JSON some of the time not at all utilized for the net application.

AJAX message completely energetic, it doesn't have any particular structure. It sends the ask to the server-side through XHTML and JavaScript programming. Server-side give reactions which can be adjusted by the designer as per commerce necessity.

JSON message is basically kept up one well-defined Protest structure, which primarily plans by the JavaScript straightforward gather of cluster protest but reuses by any programming dialect. JSON was primarily prevalent for Rest Web Benefit.

AJAX may be a blend of a few innovation and procedures work together to make strides circular trip for page and make a few parts of the page up to date as required without stacking the entire page again.

JSON may be a text-based open standard outlined for human-readable information compatibility and it utilizes to store and recover information utilizing client-side.

Actually it alludes to any offbeat ask made by the browser (anything that employments an XMLHttpRequest) on sake of a few script running on the current page, in any case of what content-type is returned.

Its format like: {"key": "value1", "key2": {"number":1, "cluster": [0, 1, 2]}} JSON information may be gotten by an AJAX ask, in spite of the fact that it is very commonly utilized in other settings as a lightweight, extensible, and easy-to-parse information trade organize.