What is an API?

APIs are mechanisms that enable two software components

to communicate with each other using a set of definitions

and protocols. For example, the weather bureau’s software

system contains daily weather data. The weather app on

your phone “talks” to this system via APIs and shows you

daily weather updates on your phone.

API stands for Application Programming Interface. In the

context of APIs, the word Application refers to any software

with a distinct function. Interface can be thought of as a

contract of service between two applications. This contract

defines how the two communicate with each other using

requests and responses. Their API documentation contains

information on how developers are to structure those

requests and responses.

How to make a javascript API Call

JavaScript provides some built-in browser objects and

external open source libraries to interact with these APIs.

Here are the possible ways to make an API call:

1. XMLHttpRequest
2. Fetch
3. Axios
4. jQuery

XMLHttp Request

Before JavaScript [ES6](http://es6-features.org/#Constants) came out, the only way to make an HTTP request in JavaScript was XMLHttpRequest. It’s a built-in browser object that allows us to make HTTP requests in JavaScript.

Fetch

Fetch allows you to make an HTTP request in a similar manner as XMLHttpRequest but with a straightforward interface by using promises. It’s not supported by old browsers (it can be polyfilled), but it’s very well supported among the modern ones. We can make an API call by using fetch in two ways.

Axios

Axios is an [open-source](https://builtin.com/founders-entrepreneurship/open-source-future) library for making HTTP requests and provides many great features, and it works both in browsers and [Node.js](https://builtin.com/software-engineering-perspectives/nodejs). It’s a promise-based HTTP client that can be used in plain JavaScript and advanced frameworks like [React](https://builtin.com/software-engineering-perspectives/react), [Vue.js](https://builtin.com/software-engineering-perspectives/vue-js) and [Angular](https://builtin.com/software-engineering-perspectives/angularjs).

jQuery

[JQuery](https://builtin.com/software-engineering-perspectives/jquery) has many methods to handle asynchronous HTTP requests. In order to use jQuery, we need to include the source file of jQuery. The $.ajax() method is used to make the HTTP request.