

Fonte Labs Podcast – Episode 1

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- I'm Jeremy Fonte and this is the Fonte Labs podcast
- Today I'll be covering AJAX fundamentals and the details of using jQuery to perform AJAX requests.
- AJAX boils down to one basic concept – sending and retrieving new data without refreshing the page.
- This basic functionality leads to websites that can update themselves smoothly, and the emergence of “single page apps”, where the whole website functions as a single page with smooth refreshing of the data on the page.
- AJAX stands for Asynchronous JavaScript and XML – but it can transfer much more than just XML. HTML, plain text, and JSON are all valid options for the data type of an AJAX request.
- Understanding AJAX requires some knowledge of HTTP. Specifically, the GET and POST methods are important, as are the HTTP status codes, including: 200 OK – the request was successful and data was returned; 304 Not Modified – nothing was downloaded because the cached copy is the same as the remote copy; 400 Bad Request – the request was not valid; 403 Forbidden – the request tried to access a URL that you don't have rights to access; and 404 Not found – the request URL doesn't exist on the server.
- If you're performing AJAX requests it's a good idea to use browser development tools, like Firebug, Chrome developer tools or IE F12 Developer tools. Using these tools you can see any network requests made and their HTTP status codes.
- There are two primary HTTP methods that AJAX routinely uses – GET and POST. GET is primarily used for retrieving resources from a server, with some ability to provide parameters in a URL query string. There is a limit to how much data can be sent in a GET request – POST can send more data, and send that data outside of the URL string.
- One important trait of AJAX requests is that, generally, the AJAX request can only retrieve resources from the same origin, that is, the same web domain that the web app is running on. There are exceptions to this rule, namely, JSONP and CORS, both of which allow the retrieval of resources from other domains.
- jQuery offers a suite of functions to make AJAX requests of just about any type.
 - The simplest AJAX function in jQuery is `.load()`; it makes an AJAX request to the specified URL and loads the response into the selected DOM element or elements that the load function came after.
 - `$.get()` is a shorthand method that performs a GET request to the specified URL; there is an optional parameter for sending data to the server, as either an object or a string. You'll generally want to specify

a success callback function to run when the request is successfully finished. This callback function should have a parameter that provides the data retrieved from the server. There is also a parameter for the data type of the request – or jQuery can automatically try to determine the data type.

- `$.post()` has the same parameters as `$.get` – the url of the request, the data to send, a success callback function, and the data type of the request. The biggest difference is that the data sent to the server is not included in the URL, but rather sent separately.
- That wraps up this episode of the Fonte Labs podcast, thank you and goodbye.