What are some best practices for integrating scripting into web pages?

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When you integrate scripts into webpages, there are generally two ways you can do it. One is you can actually write the script directly in the document in between the script tags. So, you start with a script tag. You end with a slash script tag. And in between, you can write in whatever JavaScript you want.

The other way you can do it is you can link to a file. This is the same thing that you already encountered with CSS. Should you write your CSS in the webpage or link to a file? And you already know the answer. You want to link to a file because that one file can be used over and over again on many webpages. Likewise with your JavaScript, having your JavaScript in a file, you can link to it over many webpages, and that's generally the preferred way to do it.

Once you actually have your JavaScript set up in a file, then the next question is: how do you link to it from your document? And there's two places to do it. With CSS, we always put it in the head of our document. And that's because it was really important to see the layout of the webpage as it loaded. If you put the link to the CSS at the bottom of your document, you would actually see the page load unstyled and then boom, it would come in and suddenly style. It's really kind of jarring when that happens. So, we put it in the head of the document.

With JavaScript, you have to give this a little bit of thought. So, when is the JavaScript going to run? If you need it generally to run when the page loads, you're probably going to put it in the head of the document so that it can execute as the page loads.

But for many pieces of JavaScript, they're going to execute on click or on hover or some other action that happens on the webpage. And in those situations, generally, you're going to put it just above the slash body tag in the document. The reason you put it there is so that the rest of the web page loads first, and it gives people something to look at and start to think about while that script loads. It actually takes the same amount of time to load the webpage, but it feels faster because you'll see something functional a little bit quicker.

So, probably 80% of the time, you're going to put your link to your JavaScript down there just before the slash body tag. And about 20% of your time, you're going to wind up putting it in the head of the document. It just depends on the script that you're running. And if you're getting a script from a third-party provider, they'll generally tell you exactly where to put it.