Objectives:

- *Define what the DOM is*
- *Understand why DOM Manipulation is awesome*
- *List a few examples of sites that use JS to manipulate the DOM*
- *Understand the SELECT, then MANIPULATE work-flow*

Its time for us to combine our JavaScript with HTML and CSS. Here, we are going to unleash the power of JavaScript. This lesson is going to serve as an introduction to DOM.

For every big web application right now, things like Twitter, Facebook, Instagram, YouTube, Gmail, they all use a ton of JavaScript and most of that JavaScript is interacting with the DOM, interacting with HTML and CSS. So, we interact with the DOM to do things like Games. We can make Ticktacktoe, we can make a platform in game like Mario, we can use it to do more practical things like, Dropdown menus, Form Validations, its how we make webpages interactive, its how we can add animations. Pretty much every awesome site ever in just last few years uses a lot of JavaScript to manipulate the DOM.

Let's talk about some examples on this. The first one is Google. When we start to search something on Google, like if we type 'Hello' on Google's search bar, we start getting suggestions from Google like 'hello fresh', 'hello kitty' etc. This is some sort of HTML, this is some type of hidden or shown and it keeps on changing as we type things and we get new suggestion results, this is all done with JavaScript. This is the type of things we will be able to do after a couple of lessons.

We will not be able to write the backend that Google has, but we will be able to write the frontend of Google. All the HTMLs, all the effects that we can see, we will easily be able to replicate. The next thing is on most website we have the browse courses sidebar button, which if we click it shows the list of all courses a site might provide, by pushing the whole site to the side, and as we hover over the courses' names, it shows the submenu of all the features each of those courses provide. All these interactivities are done with JavaScript, things are being added to the page like new HTML list items, which could be anchor tags, like being hidden or shown depending on them being hovered over by the cursor.