Introduce myself

Ask them to go around introducing themselves

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Introduce course

* <https://code4tomorrow.org/javascript/beginner>
* Hello, we will be learning about javascript
* To better understand javascript, we first need to understand how the web works. (Draw)
* First, when you go access a website, you first send something called a "GET" request to a webserver, which will send the website to your computer
* That is a very simplified example of how the web works. Basically everything works on this principle.
* Now, moving on to javascript
* Javascript is a programming language. It is a hugely prevalent language, mainly used in the browser. Almost every website that isn't static uses javascript
* What makes Javascript even more special is that is also used in the server as well, with a technology called nodejs. Nodejs is basically an environment that allows javascript to run outside of the browser, and in the server instead. So if you're doing web development javascript is a very important language

Project based learning

* best way of learning is hands on learning.
* I will teach concepts, then have you guys make something

Installing stuffs

* Vscode / replit. Reccomend vscode, much more fully featured.
* Vscode plugins: liveshare, refer to website
* Install node

First javascript program

console.log("hello world")

break down what the console is

* the console is just a place for you to get text output
* log, dir, assert, table <-- different ways to get data out
* very useful debugging tool
* You can console.log just about anything

Questions?

Ive shown you guys an example of a very basic program, does anyone want to describe what a program is?

* Programs manipulate data

Variables

* A bit of data that the program stores in memory
* let vs var vs const
* let: block scoped
* var: function scoped
* const: block scoped, can change value, cant change what is references
* if you have experience in different languages, let is different. You can still edit it, its not a constant of any kind
* if you don't understand yet, its fine. Just telling you that it exists, because you're going to see it a lot
* for now, I will be using var for everything

Data types

* so programs manipulate data. There are lots of different types of data. The main ones are:
* numbers (as opposed it int, double, etc. In javascript, it mostly just falls under this number type)
* boolean. true or false
* string: "a bit of text"
* character: a single char (specilal characters such as \a). also introduce \ syntax
* array: a bunch of data. syntax is []
* object: {key: value}. you can nest them.
* undefined and null are basically the same thing. they perform the same functions, except they have a different type. undefined has the type "undefined", while null is an object.
* you can put typeof in front of smth to get the type of it. secret: an array is an object.