**Julian’s Personal Notes**: JSON

**JSON** = **J**ava**S**cript **O**bject **N**otation

You should know HTML, CSS, and basic JavaScript before heading into JSONs.

You can convert a JSON file into native JavaScript objects with JSON.parse()

**Syntax**: JSON is written as name/value pairs. Think of maps in C++.

**Example** 🡪 “name”:”Julian”

**Unlike JS**, the name (key) section requires double quotes as well.

The value section also requires double quotes, regardless of its type.

**Types**: Values can be any of the following: string, number, JSON object, array, boolean, and null. That’s a total of six different types of values!

You **cannot** use dates and functions as values for JSON files.

**Features**: JSON is like XML, but has a number of advantages.

+ JSON can be parsed by a standard JavaScript function.

+ There are no end tags. XML would use <name>Julian</name>

+ Arrays can be used, whereas XML does not allow for arrays.

+ Honestly, JSON is easier and quicker to read.

* JSON text files can be fetched with an **XMLHttpRequest**. Details later.
* JSON objects are surrounded by curly braces { }.
* JSON object values are accessible with dot notation.

**JSON Example 1**

{ “students”: [

{ “firstName”:”Julian”, “id”:”111” },

{ “firstName”:”Goomba”, “id”:”999” },

{ “firstName”:”Kuribo”, “id”: 727 }

]}

**Stringify a JavaScript Object**: This means you are going to take a JavaScript object (like a person, student, or class) and turn it into JSON text. You can do this with JSON.stringify(object)

**Parsing JSON Text**: This is the opposite, which can be done with the JSON.parse(object) function. Example code follows below:

<script>

var text = ‘{“name”:”Julian”, “id”:”111”}’

var object = JSON.parse(txt);

document.getElementByID(“myID”).innerHTML = object.name + “ “ + object.id;

</script>

Both stringifying a JavaScript object and parsing JSON text applies to arrays.

**Looping**: You can loop through object keys (or values) with a for loop in JavaScript

//Looping and printing object keys

for (x in MyJSON)

document.getElementByID(“myID”).innerHTML += x + “<br>”;

//Looping and printing object values

for (x in MyJSON)

document.getElementByID(“myID”).innerHTML += myJSON[x];

**More information about JSON and PHP will be added at a later date**. 9/21/2018