**JSON**

* JSON stands for JavaScript Object Notation
* JSON is a lightweight data-interchange format
* JSON is plain text written in JavaScript object natation
* JSON is used to send data between computers
* JSON is language independent\*
* When storing data, the data must be a certain format, and regardless of where you chose the store it, text is always one of the legal formats.
* JSON make it possible to store JavaScript objects as text.

**Why Use JSON**

The JSON format is syntactically similar to the code for creating JavaScript objects. Because of this, a JavaScript program can easily convert JSON data into JavaScript Objects.

Since the format is text only, JSON data can easily be sent b/w computers and used by any programing language.

JSON.parse()

JavaScript also has a built-in function for converting an object into a JSON string:

JSON.stringfy()

**JSON Syntax**

* Data is in name/value pairs
* Data is separated by commas
* Curly braces hold object
* Square braces hold arrays

**JSON – Evaluates to JavaScript Objects**

* JSON – {“name”: “John”}
* JavaScript – {name: “John”}

**JSON Parse { JSON.parse() }**

* A common use of JSON is to exchange data to/from a web server
* When receiving data from a web server, the data is always a string
* Parse the data the JSON.parse(), and the data becomes a JavaScript Object

**Imagine we received this text from a web server:**

‘{“name”: “John”, “age”: 30}’

**Use the JavaScript function JSON.parse() to convert text into a JavaScript object:**

const obj = JSON.parse(‘{“name”: “John”, “age”: 30}’).

Example:

const txt = '{"name":"John", "age":30, "city":"New York"}'

const obj = JSON.parse(txt);

document.getElementById("demo").innerHTML = obj.name + ", " + obj.age;

**Array as JSON**

When using the JSON.parse() on a JSON derived from an array, the method will return a JavaScript array, instead of a JavaScript object.

**Example:**

const text = '[ "Ford", "BMW", "Audi", "Fiat”]';

const myArr = JSON.parse(text);

document.getElementById("demo").innerHTML = myArr[0];

**JSON Stringify { JSON.stringify() }**

A common use of JSON is to exchange data to/from a web server

**JSON Objects**

It is a common mistake to call a JSON object literal “a JSON object”.

JSON cannot be an object. JSON is a string format.

The data is only JSON when it is in a string format. When it is converted to a JavaScript variables, it becomes a JavaScript object.