**An High-Level Overview of JavaScript**

* High Level: Automatically, for example, manage resources because of abstraction. Makes languages easy to learn but has the downside of programs will not be as fast as low-level languages such as C.
* Garbage-collection: Algorithm in JavaScript engine that automatically removes old unused objects from the computer memory in order not to clog it up with unnecessary stuff.
* Interpreted or just-in-time compiled
* Multi-paradigm: A paradigm is an approach and mindset of structuring code, which will direct your coding style and technique.
  + JavaScript can be any:
    - Procedural programming
    - Object-oriented programming (OOP)
    - Function programming (FP)
* Prototype-based object-oriented: Use of classes such as Array to create, for example, a simple array. (Ex. const array = [1,2,3]; The array inherits from Array class so that array methods becomes usable such as push, pop, shift, etc.)
* First-class functions: Functions are simply treated as variables. We can pass them into other functions, and return them from functions.
* Dynamic: The data types become known at runtime.
  + Single-threaded:
    - Concurrency model is how the JavaScript engine handles multiple tasks happening at the same time.
    - JavaScript runs in one single thread.
* Non-blocking event loop: Takes long running tasks, executes them in the background, and puts them back in the main thread once they are finished.