Language Map for JavaScript

Variable Declaration *Is this language strongly typed or dynamically typed? Provide at least three examples (with different data types or keywords) of how variables are declared in this language.*	JavaScript is both a weakly and dynamically typed language.
	
	 var y = 6;
	 var x = 9;
	 var z = x + y;
	
	 {
	    let x = 6;
	 }
	
	 const x = "jane";

Data Types *List all of the data types (and ranges) supported by this language.*	• Number- interger or floating point numbers • String- text data • Boolean- true or false • Null- unknown value • Undefined- variable unassigned a value • BigInt- for numbers beyond the integer limit • Symbol- An immutable and unique value • Object- Allows storing of multiple data collections

Selection Structures *Provide examples of all selection structures supported by this language (if, if else, etc.)* **Don't just list them, show code samples of how each would look in a real program.**	Conditional Operator- (condition) ? exec_if_true : exec_if_false;
	
	 Conditional if- if
	 {
	    statement
	 }
	
	 If prompt- if(variable == null)
	
	 If-else- if
	 {
	    statement
	 }
	 else
	 {
	    Statement

| | ```
}
Switch Statements- switch
{
  case value:
        statement;
        break;
   case value:
        statement;
        break;
  }
``` |
| **Repetition Structures**<br>*Provide examples of all repetition structures supported by this language (loops, etc.)* ***Don't just list them, show code samples of how each would look in a real program.*** | For loop- for(let i = 0; i < 5; i++)<br>```
{
    console.log(:"Hello World")
}
```<br><br>while loop- while (boolean condition)<br>```
{
   loop statements
}
```<br><br>Do-while loops- do<br>```
{
   Statements…
}
while(condition)
```<br><br>for-in loop- for (variable in object)<br>         statement |
| **Arrays**
If this language supports arrays, provide at least two examples of creating an array with a primitive or String data types (e.g. float, int, String, etc.) | const movies = {Pulp Fiction, Jaws, Titanic, Parasite}

const int = [8,23,9.22,3] |
| **Data Structures**
If this language provides a standard set of data structures, provide a list of the data structures and their Big-Oh complexity. | Create- null
Pop- O(1)
Push- O(1)
Shift/Dequeue- O(n) |

	Unshift/Queue- O(N) Find- O(N) Index of- O(N) Filter-O(N) Size- null

Objects
If this language support object-orientation, provide an example of how you would write a simple object with a default constructor and then how you would instantiate it.
	Const myself = {
	Fname: "Isaiah",
	Lname: "Washington",
	}

Runtime Environment *What runtime environment does this language compile to? For example, Java compiles to the Java Virtual Machine.* *Do other languages also compile to this runtime?*	JavaScript runs in browsers such as google chrome. Works well with HTML or in the Node runtime environment. HTML/CSS also run in browsers. They are all web browsers languages.
Libraries/Frameworks *What are the popular libraries or frameworks used by programmers for this language? List at least three (3) and describe what they are used for..*	React- Developed by Facebook to create interfaces for web and mobile apps. It is focused on rending the UI and allows for HTML like code. Angular- Developed by Google Angular provides a framework for robust and scalable web apps. It enables developers to make large scale apps easily. TezJS- Open-source framework which combines other frameworks without a steep learning curve. Allowing for an ease to creating websites.
Domains *What industries or domains use this programming language? Provide specific examples of companies that use this language and what they use it for. **E.g. Company X uses C# for its line of business applications.***	JavaScript is very useful in the development of websites, applications and web browser based games. JavaScript is used extensively by the financial, marketing and healthcare industries. JavaScript can help write programs that track user activities and behaviors. Can help doctors connect to patients over the web. Can also help people sell and buy items over the internet. It is the backbone of internet usage.