

Language Map for JavaScript

Variable Declaration <i>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.</i>	Strongly typed float wallet; String name; int age;
Data Types <i>List all of the data types (and ranges) supported by this language.</i>	int long float double bool char String
Selection Structures <i>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.</i>	if(condition){ } else if(condition){ } else{ } switch(expression) { case x: break; case y: break; default: break; }
Repetition Structures <i>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.</i>	While loop While(condition){ } Do/While Loop do{ } while(condition) For Loop

	<pre>for(statement 1; statement 2; statement3){ }</pre> <p>Foreach Loop</p> <pre>foreach(variable in array){ }</pre>
Arrays <i>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.) If the language supports declaring arrays in multiple ways, provide an example of way.</i>	<pre>String[] names; String[] names = {"Michael","Jacob","Mary"}; int[] ages = {29,32,27};</pre>
Data Structures <i>If this language provides a standard set of data structures, provide a list of the data structures and their Big-Oh complexity (identify what the complexity represents).</i>	<p>Arrays Stacks Queues Hashtables Dictionaries Linked Lists</p>
Objects <i>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.</i>	<pre>Class student{ String name; Int idNumber; public student(){ name = "Michael" idNumber = 12345; } }</pre> <pre>Static void Main(String[] args){ Student Michael = new Student(); }</pre>
Runtime Environment <i>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? If so, what these other languages?</i>	<p>Common Language Runtime (CLR)</p>
Libraries/Frameworks	<p>.NET allows you to develop applications for Windows, macOS, and Linux.</p>

<p><i>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.</i></p>	<p>ASP.NET Core used for building modern web applications and services. Open-source and has a modular design while allowing cross-platform development.</p> <p>Entity Framework Core is an Object-Relational Mapping framework that simplifies data access in C# applications. It enables developers to work with databases using .NET objects and LINQ queries.</p>
<p>Domains <i>What industries or domains use this programming language? Provide at least three 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.</i></p>	<p>Web development, game development, mobile app development, and Windows applications</p> <p>Companies that use C#:</p> <ul style="list-style-type: none"> -Microsoft -City National Bank -Roblox