

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>	Statically typed Type variableName = value int myNum = 13 cout << myNum
Data Types <i>List all of the data types (and ranges) supported by this language.</i>	int float char bool double void wchar_t
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 int x = 50 int y = 70 if (x<y){ cout << "true"; } if...else int x = 0 if(x == 0){ cout <<"x is equal to 0" else{ cout <<"x is not equal to 0"
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 int x =5; while (x <7){ cout << x <<"\n"; x++; } for loop

	<pre>for (int x = 0; x < 6; i++) { cout << i << "\n"; }</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 rappers[3] string rappers[3] = {"Kendrick Lamar", "Future", "Jay-Z"}; int myNum[5] int myNum[5] = {3, 65, 5, 1, 98};</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>	<pre>Vector- O(1) List- O(n) Stack- O(n) Queue- O(n) Deque- O(1) Set- O(log(n)) Map- O(1)</pre>
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>C++ is object oriented. Class Object{ public: Object(){ //constructor } int main() Object myObj; }</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>	<pre>Code is compiled into an object file. Java can also be compiled and integrated into c++ most languages are compatible with c++.</pre>
Libraries/Frameworks <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>	<pre>C++ standard library- A collection of classes and is based on the Standard Template Library though the two are different.</pre>

	<p>Standard Template Library- Widely used because its generic programming abilities. It is a collection of functions and classes that gives common data structures. It was the first library of generic algorithms and data structures for C++</p> <p>Boost- Extends the abilities of C++ and works well with C++ Standard Library. Aims to broaden the horizons of C++</p>
<p>Domains</p> <p><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>Game developers often use C++. It is used for memory and data structures. It is used both in game engines on consoles and in creation of games.</p> <p>Apple uses this language extensively for operating systems and databases. Which are common application for the C++ language</p> <p>C++ is vital for the development of operating systems such as MacOS and Windows. Due to the low level capabilities of C++ it is well used by systems that need to be efficient.</p>