

Language Map for C#

Variable Declaration <i>Is this language strongly typed or dynamically typed? Provide an example of how variables are declared in this language.</i>	C# is a strongly typed language String name = "Michael";
Data Types <i>List all of the data types (and ranges) supported by this language.</i>	Int, double, char, string, bool
Selection Structures <i>Provide examples of all selection structures supported by this language (if, if else, etc.)</i>	If, if else, and switch statements
Repetition Structures <i>Provide examples of all repetition structures supported by this language (loops, etc.)</i>	While, for, and do...while
Arrays <i>If this language supports arrays, provide an example of creating an array with a primitive data type (e.g. float, int, etc.)</i>	Int [] array = new int[] { 15, 30, 45 };
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.</i>	Array{ Access – O(1), Search – O(N), Insertion – O(N), and Deletion O(N)} Stack{ Access – O(N), Search – O(N), Insertion – O(1), and Deletion – O(1)} Queue{ Access – O(N), Search – O(N), Insertion – O(1), and Deletion – O(1)} Hashtable{ Access – O(N), Search O(N), Insertion – O(N), and Deletion – O(N)} Linked List{ Access – O(N), Search O(N), Insertion – O(1), and Deletion – O(1)}
Objects <i>If this language support object-orientation, provide an example of how to create a simple object with a default constructor.</i>	Public class Schools { Public Schools () { Console.WriteLine("Bellarmine"); } Schools school1 = new Schools ();
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?</i>	Common Language Runtime .NET languages use CLR
Libraries/Frameworks	Dapper, AutoMapper, and Serilog

<i>What are the popular libraries or frameworks used by programmers for this language? List at least three (3).</i>	
Domains <i>What industries or domains use this programming language? Provide specific examples of companies that use this language and what they use it for.</i>	Accenture – use it for applications at labs Microsoft – web applications and game development Aristocrat – game development Wintrust Financial Corporation – front end web development