## .NET Basics

* .NET Core - <https://docs.microsoft.com/en-us/dotnet/standard/common-type-system>
* .NET Framework - <https://docs.microsoft.com/en-us/dotnet/standard/class-libraries>
* Assemblies - <https://docs.microsoft.com/en-us/dotnet/framework/app-domains/>
* Common Language Runtime - <https://docs.microsoft.com/en-us/dotnet/standard/clr>
* Common Type System - <https://docs.microsoft.com/en-us/dotnet/standard/common-type-system>
* Garbage Collection - <https://docs.microsoft.com/en-us/dotnet/standard/garbage-collection/memory-management-and-gc>
* Namespaces - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/namespaces/>
* Solutions and Projects - <https://docs.microsoft.com/en-us/visualstudio/ide/solutions-and-projects-in-visual-studio>

## C# Basics

* Casing Rules - <https://docs.microsoft.com/en-us/dotnet/standard/design-guidelines/capitalization-conventions>
* Comments - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/language-specification/lexical-structure>
* Naming Conventions - <https://docs.microsoft.com/en-us/dotnet/standard/design-guidelines/general-naming-conventions>
* Other Conventions - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions>

## Console

* Program Entry Point - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/main-and-command-args/>
* Console - <https://docs.microsoft.com/en-us/dotnet/api/system.console>
* Reading from Console - <https://docs.microsoft.com/en-us/dotnet/api/system.console.readline?System_Console_ReadLine>
* Parsing Strings - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/parsing-strings>
* Writing to Console - <https://docs.microsoft.com/en-us/dotnet/api/system.console.writeline>

## Data Types (Primitives)

* Alias vs Framework Types - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/built-in-types-table>
* boolean - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/bool>
* char - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/char>
* DateTime - <https://docs.microsoft.com/en-us/dotnet/api/system.datetime>
* Enums - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/enumeration-types>
* Floats
  + decimal – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/decimal>
  + double - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/double>
  + float - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/float>
* Integrals
  + byte – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/byte>
  + int – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/int>
  + long - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/long>
  + sbyte – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/sbyte>
  + short – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/short>
  + uint – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/uint>
  + ulong – <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/ulong>
  + ushort - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/ushort>
* Object - <https://docs.microsoft.com/en-us/dotnet/api/system.object>
* TimeSpan - <https://docs.microsoft.com/en-us/dotnet/api/system.timespan>
* void - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/void>

## Expressions

* General - <https://docs.microsoft.com/en-us/dotnet/csharp/tour-of-csharp/expressions>
* Assignment
  + Syntax - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/index#assignment-and-lambda-operators>
  + Lvalue vs rvalue - <https://msdn.microsoft.com/en-us/library/bkbs2cds.aspx>
* Default Values - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/generics/default-keyword-in-generic-code>
* Null - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/null>

## Functions

* Calling - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/language-specification/expressions#function-members>
* Inline variable declarations - <https://docs.microsoft.com/en-us/dotnet/csharp/whats-new/csharp-7#out-variables>

## Operators

* Arithmetic - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/index>
* Conditional - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/index#conditional-operator>
* Logical - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/index#logical-and-operator>
* New - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/new-operator>
* Relational - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/index#relational-and-type-testing-operators>

## Reference Types

* Equality - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/statements-expressions-operators/equality-comparisons>
* Null Coalesce Operator - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/null-conditional-operator>
* Null Conditional Operator - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/conditional-operator>
* Nullable Value Types - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/nullable-types/>
* Value Types - <https://docs.microsoft.com/en-us/dotnet/csharp/tour-of-csharp/structs>

## Statements

* General - <https://docs.microsoft.com/en-us/dotnet/csharp/tour-of-csharp/statements>
* Do-while - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/do>
* For - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/for>
* If - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/if-else>
* Switch
  + Syntax - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/switch>
  + Default - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/switch#the-default-case>
* Using Directive - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/namespaces/using-namespaces>
* While - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/while>

## Strings

* Type - <https://docs.microsoft.com/en-us/dotnet/api/system.string>
* Escape Sequences - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/strings/#string-escape-sequences>
* Null vs empty vs String.Empty - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/strings/#null-strings-and-empty-strings>
* Verbatim strings - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/tokens/verbatim>
* Formatting - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/formatting-types>
* String interpolation - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/tokens/interpolated>
* Functions
  + Compare, StartsWith, EndsWith - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/comparing>
  + PadLeft, PadRight - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/padding>
  + ToLower, ToUpper - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/changing-case>
  + Trim, TrimStart, TrimEnd - <https://docs.microsoft.com/en-us/dotnet/standard/base-types/trimming>

## Type Checking

* As operator - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/as>
* Is operator - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/is>
* Pattern Matching
  + Switch - <https://docs.microsoft.com/en-us/dotnet/csharp/pattern-matching>
  + When - <https://docs.microsoft.com/en-us/dotnet/csharp/pattern-matching#when-clauses-in-case-expressions>
* Type Casting - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/types/casting-and-type-conversions>
* Typeof - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/typeof>

## Variables

* Declaring - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/types/>
* Scoping Rules - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/language-specification/variables>
* Type Inferencing - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/var>