

UNIT 1

Common Language Specification(CLS) and Common Type System(CTS)

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Two important components of .NET Framework

In compilation process we can write the program in any language we can execute them all together this can be achieved by two components:

- CLS (Common language Specification)
- CTS (Common Type System)

CLS(Common Language Specification)

- It says how programs is converted in MSIL or CIL (common intermediate language)
- Language designers and class library designers collaboratively use common subset of basic language features that all language have to follow.

Scenario :

C# Code	VB Code
<pre>using System; class SampleClass { static void Main(string[] args) { int x; Console.WriteLine("Enter Value of x:"); x=int.Parse(Console.ReadLine()); Console.WriteLine("Value of x: "+x); } }</pre>	<pre>Imports System Module SampleModule Sub Main() Dim x As Integer Console.WriteLine("Enter Value of x:") x=Integer.Parse(Console.ReadLine()) Console.WriteLine("Value of x: "&x) End Sub End Module</pre>

CTS(Common Type System)

- It's a common way of .Net Framework to
 - ✓ Define
 - ✓ Manage
 - ✓ Declare
 - ✓ Uses
 - ✓ Read/write values from/to --- user/screen
- Its enable **cross language integration** (different language in a single application)
- Provide **type safety** and **managed code** execution(high performance)
- It provide **object oriented model**
- Provides library for primitive data types.