



The Common Type System (CTS)

Another block of .NET framework is Common Type System (CTS).

The CTS describes all possible data types and all programming constructs supported by runtime.

The Common Type System (CTS) defines the characteristics and types that must be used in the managed code. CTS defines how types are declared, used, and managed in the Common Language Runtime (CLR). The CTS performs the following functions:

- Establish a framework that helps enable cross-language integration, type safety, and high-performance code execution.
- Provides an object-oriented model that supports the complete implementation of .NET aware programming languages.
- Defines rules that all .NET aware languages must follow, which helps to ensure that objects written in different languages can interact with each other.
- Provides a library that contains the primitive data types such as Boolean, Byte, Char, Int32, and UInt64.

CTS is a formal specification that documents how types must be defined in order to be hosted by the CLR. It is important to learn how to work with five types defined by the CTS. One of the most important characteristic of CTS is that all types are derived from a common base class called System.Object.

Common Language Specification (CLS)

It is a subset of CTS. All instruction is in CLS i.e. instruction of CTS is written in CLS.

Contains the specifications for the .Net supported languages and implementation of language integration.

The CLS specifies the rules, properties, and behaviours of a .NET compliant programming language. The topics include data types, class construction, and parameter passing.