**Introduction to .Net and .Net Core Frameworks**

**Ques: What is the main component in the .Net Framework?**

**Answer:** .Net framework has two major components called:

**1)CLR :** which stands for the Common Language Runtime. CLR is the execution engine of the .net framework which is responsible for the execution of the code. Managed the code of the .net framework. In .net framework the code which is managed by the CLR is called the Managed code.

Common Language Runtime provides functionality like CTS, CLS, GC and JIT compiler.

**2) Class Library:** class library provides the basic functionality to the .net framework for developing the different types of application like windows application , console application , web application and cloud application etc. framework class library is an API that provides various data types , interfaces and classes etc.

**Ques:2. Current .Net Standard framework and Current core framework?**

**Answer:** Current .net framework is 4.8 and current core framework 3.1.

**Ques:3. Difference between Managed and Unmanaged code?**

**Answer:Managed Code:** Managed code is the code which is managed by the language compiler or runtime execution. In .Net Framework managed code are those code which is executed by the CLR which belongs to the .Net Framework. Managed code gets the security and garbage collection facility by the CLR.

**Unmanaged Code:** Unmanaged code is the code which is handled or executed by the operating system itself. The code which does not hit the CLR compiler is known as the unmanaged code. It does not get any support of security and garbage collection by the execution engine or execution environment.

**Ques:4. What do you mean by MSIL Code?**

**Answer:** MSIL stands for the Microsoft Intermediate Language. It is a Portable execution file which consists of the two file .DLL and .EXE. When the source code is compiled by the language compiler it generates the MSIL code which is portable. This MSIL code is further executed by the JUST IN TIME compiler. Which converts these MSIL code into the Native file .

**Ques:5. What is the difference between .Net and .Net Core Frameworks?**

**Answer:** .Net is not an open source and it is not platform independent. It is available for windows only. And .Net Core Framework is an open source and it is platform independent. In core we can target different platforms like windows, linux etc.

**Ques:6. Explain the execution process of managed code in .Net?**

**Answer:**  When you write a source code in language these code is compiled by the language compiler and it generates the Microsoft IntermediateLanguage code. Which is a portable execution file it contains the two files like .DLL and .EXE. after that MSIL code is executed by the JIT (Just In Time) compiler. Which converts the IL code into the Native code (machine) code.

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