1.EVOLUTION OF .NET FRAMEWORK

.NET Framework is a software development framework developed by Microsoft that supports many languages like C#. .NET Framework includes a  large class library called Framework Class Library which provides language interoperability. .NET Framework uses an environment known as Common Language Runtime to execute the programs written in different languages. Common Language Runtime is also known as CLR which converts code into MSIL (Microsoft Intermediate Language) Machine level language.

Microsoft started the development of the .NET framework in the late 1990s, originally under the *Next Generation Windows Services*, and by late 2000, the first beta version of the .NET Framework was released.

2. SHORT NOTE ON

1. **Mono** is a software platform designed to allow developers to easily create cross platform applications Sponsored by [Microsoft](https://www.microsoft.com/), Mono is an open source implementation of Microsoft's
2. **Xamarin**: is an open-source platform for building modern and performant applications for iOS, Android, and Windows with .NET. Xamarin is an abstraction layer that manages communication of shared code with underlying platform code.
3. **COM:** The Component Object Model (COM) lets an object expose its functionality to other components and to host applications on Windows platforms.
4. **Net Core:**

NET Core is a cross-platform framework, and hence, it requires development modules and standard features.

1. **Unity c#:**

Unity is a real-time 3D development platform for building 2D and 3D application, like games and simulations, using .NET and the C# programming language.

1. **REST:**

Rest stands for Representational State Transfer. In simple terms it’s a pattern for creating an API. API stands for Application Programming Interface.

3. 3 KEY WORDS OF CLR

1. Memory Management:

In the common language runtime (CLR), the garbage collector (GC) serves as an automatic memory manager. The garbage collector manages the allocation and release of memory for an application. Therefore, developers working with managed code don't have to write code to perform memory management tasks.

1. Exception Handling:

The CLR's exception system (called a two-pass exception system) delivers the exception to every predecessor on the thread's call stack, beginning with the caller and proceeding until some function says it will handle the exception (this is known as the first pass).

1. Code Access Security:

Is a Microsoft's solution to prevent untrusted code from performing privileged actions. When the CLR loads an assembly it will obtain evidence for the assembly and use this to identify the code group that the assembly belongs to.