

→ C# Programming Language

- a. C# has roots from C family, and the language is close to other popular languages like C++ and Java
- b. It is a modern, general purpose, object-oriented programming language created by Microsoft that runs on the .NET Framework
- c. The first version of C# was released in the year 2002, and the latest version C#11 was released in November 2022
- d. It was developed by Anders Hejlsberg and his team during the development of .NET Framework
- e. C# is designed for Common Language Infrastructure (CLI), which consists of the executable code and runtime environment that allows use of various high-level languages on different computer platforms and architectures.

→ Scope of C# programming language

The C# programming language allows you to build many types of applications like

- a. Business applications to capture, analyze, and process data
- b. Mobile Applications
- c. Desktop Applications
- d. Database Applications
- e. Dynamic web applications that can be accessed from a web browser and web services
- f. Games, both 2D and 3D
- g. VR
- h. Financial and scientific applications
- i. Cloud based Applications

→ Advantages of C#

- a. It is one of the most popular programming language in the world
- b. It is a modern, general-purpose programming language
- c. It is easy to learn and simple to use
- d. It has a huge community support
- e. C# is an object oriented language which gives a clear structure to programs and allows code to be reused, lowering development costs
- f. As C# is close to C, C++ and Java, it makes it easy for programmers to switch to C# or vice-versa
- g. It can be compiled on a variety of computer platforms
- h. It produces efficient programs

→ Strong Programming Features of C# are

- a. Boolean Conditions
- b. Automatic Garbage Collection
- c. Standard Library
- d. Assembly Versioning
- e. Properties and Events
- f. Delegates and Event Management
- g. Easy-to-use Generics
- h. Indexers
- i. Conditional Compilation
- j. Simple Multithreading
- k. LINQ and Lambda Expressions
- l. Integration with Windows

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