

History and Application of C#

C# is a popular programming language that has been widely used by various companies and individuals for many years. Starting in 1999, Anders Hejlsberg worked with Microsoft to create C#. He was the chief designer and lead architect of the team building the language. Hejlsberg is the main person credited and responsible for creating C# and is still working with Microsoft today as a Microsoft Technical Fellow. C# dates back to its first appearance in 2000, but the first official version wasn't released until January of 2002.

C# 1.0 was released in January of 2002 as C#'s first version released with Visual Studio .NET. Despite the language's similarities to Java, Hejlsberg did not intend it to be this way. In its original version, Hejlsberg said C# was designed closer in similarity to C++ than Java. Even though Hejlsberg said this, the programming language was (and still is) very comparable to Java. According to Microsoft Learn, The History of C# (2023), Erik Dietrich said version 1.0 looked a lot like Java. At the time, looking like Java meant it (C#) achieved many early design goals. With Java being the programming language to beat, Java had an influence over C#'s development. The language also initially fit under the paradigm of an Object-Oriented programming language, similar to Java. With these two views, we can see that the roots of C# come primarily from the programming languages C++ and Java.

The next full version of C# would not be released until 3 years after its debut. C# 2.0, released in November of 2005, added a handful of new features while updating on current ones as well. The most notable of these new features were the additions of generics and iterators. This version began the change from C# being strictly an Object-Oriented programming language to being a multi-paradigm language. C# 3.0, released in November of 2007, was the next version of the language. According to Microsoft Learn, The History of C# (2023), Erik Dietrich said this

version marked a major change in the growth of C#, and this version established it as a truly formidable programming language. The biggest feature added in this version was the query expansion, known as Language-Integrated Query (LINQ). This began the transformation of C# evolving into a hybrid Object-Oriented / Functional programming language. With the language now fitting under the paradigm of Functional programming, C# took the direction of being a multi-paradigm programming language. The next groundbreaking version of C# did not come until August of 2012. C# 5.0 included the async and await model for asynchronous programming. The addition of asynchrony into C# was the most exciting feature of this version.

C# is still being worked on and updated to this day, with its latest version release being C# 12, released in November of 2023. The language also continues to be released alongside new versions of Microsoft's Visual Studio .NET. Anders Hejlsberg and Microsoft are still in charge of managing the updates and maintenance of the programming language. C# was initially developed for creating web applications. Today, C# is used for creating numerous types of applications used by various developers around the world.