Features von C#

Sehr ähnlich zu Java.

70% Java, 10% C++, 5% Visual Basic, 15% neu.

Wie in Java

- Object-orientation (single inheritance)
- Interfaces
- Generics (mächtiger als in Java)
- Exceptions
- ▶ Threads
- Namespaces (ähnlich Java packages)
- Attributes (ähnlich Java annotations)
- Lambda expressions
- Garbage collection
- Reflection
- Dynamic loading of code
- **.**..

Wie in C++

- Struct types
- Operator overloading
- ▶ Pointer arithmetic in unsafe code
- ► Some syntactic details

Wirklich neue Features

im Vergleich zu Java

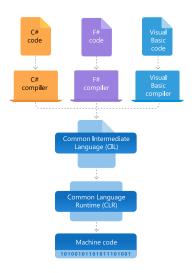
- Reference parameters
- ► Stack-allocated objects (structs)
- Block matrices
- goto statement
- Delegates
- System-level programming
- Versioning
- Partial Types
- Anonymous types
- Nullable types
- Tuple types
- Nested methods
- Ranges

Syntactic Sugar

- Properties
- Indexers
- Events
- Iterators
- Extension methods
- ► SQL-like query expressions
- Asynchronous programming
- Pattern matching
- ...

C# Programme laufen in der .NET Runtime

Managed execution environment (virtual machine)



Source: https://dotnet.microsoft.com/en-us/learn/dotnet/what-is-dotnet-framework