

Interview Questions C#

1. C# is an object-oriented programming language compiled by the . Net framework to generate Microsoft Intermediate Language
2. ASP.NET Core is an open source and cross-platform framework used for building Web Applications, Cloud-based applications, IoT Applications, and also Mobile applications using C# and .NET , it was developed by microsoft to allow programmers to build dynamic websites and web applications
3. A class is a template for declaring and creating the objects , no memory is allocated when created. An object is an instance of a class , allocated memory space when created.
4. The difference between a class and struct is that a class is reference type and struct is value type.
5. An enumeration is a symbolic name for a set of values. You should use it any time you need to represent a fixed set of constants.
6. The difference between a break statement and a continue statement is that a break statement stops the entire process of the loop. A continue statement only stops the current iteration of the loop.
7. No, we can't use "this" keyword inside a static method, "this" refers to current instance of the class. But if we define a method as static , class instance will not have access to it, only CLR executes that block of code.
8. The difference between string and StringBuilder in C# is that a string is an immutable type in C#, StringBuilder is an example of a mutable item
9. C# properties are members of a C# class that provide a flexible mechanism to read, write or compute the values of private fields
10. Value types stored on stack and get freed on its own from stack when they go out of scope. Some use cases of value types include enums and structs.
11. Variables of reference types store references to their data (objects). Some examples of reference types include classes and interfaces.

12. Encapsulation is considered as hiding properties and methods. It is utilized for hiding the code and data in one unit to cover the data from the outside world
13. The Nullable type allows you to assign a null value to a variable. You typically use a nullable value type when you need to represent the undefined value of an underlying value type
14. The namespace keyword is used to declare a scope that contains a set of related objects. You can use a namespace to organize code elements and to create globally unique types
15. The using statement is used to set one or more than one resource. These resources are executed and the resource is released. The main goal is to manage resources and release all the resources automatically.
16. A constructor is a special method of a class or structure in object-oriented programming that initializes a newly created object of that type. A constructor is called whenever an object is created
17. C# is considered a multi-paradigm programming language and it supports functional programming. One example would be LINQ. LINQ is a way to write data queries in C# code.
18. The static keyword is a keyword that can be used to declare a member of a type so that it is specific to that type. When a variable is declared as static, then a single copy of the variable is created and shared among all objects at the class level
19. Exception handling is completed in C# by using a try-catch block. If an exception is thrown, this try catch block will handle the exception to ensure that the application does not cause an unhandled exception, user error, or crash the application.
20. LINQ is a data querying API that provides querying capabilities to .NET languages with a syntax similar to a SQL. Users can query XML documents, relational databases and in-memory collections
21. The “is” operator is used to check if the run-time type of an object is compatible with the given type or not, whereas the “as” operator is used to perform conversion between compatible reference types or nullable types.