C# Interview Questions for Fresher’s

**What is C#?**

**Answer:**  
C# is a modern, type-safe, object-oriented programming language developed by Microsoft. It runs on the .NET platform and is used to build web, desktop, and mobile apps.

#### ****What are the basic data types in C#?****

**Answer:**

* int – Integer (e.g., 10)
* float – Decimal with f (e.g., 10.5f)
* double – Larger decimal (e.g., 20.99)
* char – Single character (e.g., 'A')
* bool – True or false
* string – Text (e.g., "Hello")

**What is the difference between =, ==, and === in C#?**

**Answer:**

* = → Assignment
* == → Comparison
* === → ❌ Not used in C#. Only used in JavaScript.

**What are value types and reference types in C#?**

**Answer:**

* **Value Types:** Store data directly (e.g., int, float, bool)
* **Reference Types:** Store the reference (address) to the data (e.g., string, arrays, class)

**What are control statements in C#?**

**Answer:** Control statements manage program flow:

* if, else, else if
* switch
* for, while, do-while
* break, continue

**What is the difference between while and do-while loop?**

**Answer:**

* while → condition is checked **before** the loop
* do-while → loop runs **at least once**, condition is checked **after**

#### ****What is an array in C#?****

**Answer:** An array is a collection of elements of the **same type**, stored in a fixed-size.

#### ****What is a**** foreach ****loop used for?****

**Answer:**  
To loop through elements in a collection (like array or list) easily.

#### ****What is a**** switch ****statement in C#?****

**Answer:** It’s a control statement used as an alternative to multiple if-else conditions.

**What is the use of break and continue?**

**Answer:**

* break: Exits the loop.
* continue: Skips current iteration and goes to the next one.

#### ****What is**** nullable ****type in C#?****

**Answer:**  
It allows value types (like int) to hold a null value.

#### ****What is .NET Core?****

**Answer:**  
.NET Core is a **cross-platform**, **open-source** framework from Microsoft used to build **web, desktop, cloud, mobile, and IoT applications**. It is the **successor of .NET Framework** and supports Windows, Linux, and macOS.

#### ****What is the difference between .NET Framework and .NET Core?****

| **Feature** | **.NET Framework** | **.NET Core** |
| --- | --- | --- |
| Platform | Windows only | Cross-platform |
| Open Source | No | Yes |
| Performance | Slower | Faster & lightweight |
| Future Support | Legacy | Actively developed |

**What are the main features of .NET Core?**

**Answer:**

* Cross-platform
* Open-source
* High performance
* Dependency Injection built-in
* Unified Web API & MVC
* Supports Razor Pages
* Command-line interface (CLI)