**1)When to use String vs. StringBuilder in C#?**  
Use String while dealing with immutable text, i.e., where the value is not changed frequently. Since String objects are immutable, any modification creates a new object in memory, which is wasteful for large operations.  
Utilize StringBuilder while doing multiple changes (like appending, inserting, or deleting strings dynamically). StringBuilder can be modified and provides enhanced performance in the case of extensive string manipulations as it doesn't create a list of objects in memory.  
  
**2) What is the base class for all arrays in C#?**

The base class for all C# arrays is System.Array.  
It provides a few built-in methods for copying, searching, sorting, and fetching array properties.

**3) How do you sort an array in C#?**

You can sort an array using the **Array.Sort()** method.

int[] numbers = { 5, 2, 8, 1, 3 };

Array.Sort(numbers);

**4. What property of an array object can be used to get the total number of elements in an array?**

The Length property of an array returns the total number of elements in the array.

int[] numbers = { 10, 20, 30, 40 };

int totalElements = numbers.Length; // Output: 4

**5. Can you store multiple data types in System.Array?**

No, System.Array is strongly typed, meaning it can only store elements of a single data type.

However, if you need to store multiple types, you can use an object[] array, which holds elements of different types, but this is not type-safe.

**6. What’s the difference between the System.Array.CopyTo() and System.Array.Clone()?**

CopyTo(): Copies elements from the source array to an existing target array, starting at a given index. The target array must have sufficient space.  
Clone(): It returns a new array that is identical to the original, with the same type and elements. It returns a shallow copy, i.e., reference types inside the array are not copied.