**what are scenarios to use string Vs StringBuilder**

**When to Use string vs StringBuilder**

* **string**: Use this when you have a text that doesn’t change a lot. Strings are good for text that you’re going to read but not change frequently. For example, if you’re showing a fixed message like "Hello, World!" or storing a user's name, string is perfect.
* **StringBuilder**: Use this when you’re building or changing text many times, like when you’re adding characters in a loop. Strings are a bit slow when you modify them repeatedly because every change creates a new string in memory. StringBuilder is faster for tasks like building a long sentence or constructing a big piece of text in a loop.

**Using string:**

string message = "Hello, ";

message += "how are you?"; // creates a new string, so it's not efficient for many changes.

Console.WriteLine(message);

**Using StringBuilder:**

StringBuilder message = new StringBuilder("Hello, ");

message.Append("how are you?"); // This adds to the existing text without creating a new string each time.

Console.WriteLine(message.ToString());

**Scenarios**

* **Use string**: When you’re not modifying the text much, like displaying a title, or handling short text data.
* **Use StringBuilder**: When you need to create or modify a large text, such as building a long report, joining strings in a loop, or when doing many string concatenations in code.