Best Methods to Check for Empty Strings in C# Labs

Perform these labs on your own computer using Visual Studio 2022 or later, or VS Code 1.8x or later, to ensure you understand the lessons presented in the corresponding videos and lectures.

Lab 1: Simulate IsNullOrEmpty() Using Equality and || Operators

Open **Visual Studio** or **VS code** and create a new **console** application.

Modify the **Program.cs** file to look like the following.

```
string? value;

//*****************************************
// Simulate IsNullOrEmpty Samples
//*****************************************
Console.WriteLine("Simulate IsNullOrEmpty Samples");
value = null;
Console.Write("value = null: ");
Console.WriteLine(value == null || value ==
string.Empty);

value = "";
Console.Write("value = '': ");
Console.WriteLine(value == null || value ==
string.Empty);

value = " ";
Console.Write("value = ' ': ");
Console.WriteLine(value == null || value ==
string.Empty);

value = "Some Text";
Console.Write("value = 'Some Text': ");
Console.WriteLine(value == null || value ==
string.Empty);
Console.WriteLine();
```

Try It Out

Run the application.

Lab 2: Using the IsNullOrEmpty() Method

Add the following code to the **Program.cs** file.

```
//*****************************************
// IsNullOrEmpty Samples
// This is the same as above, but is faster
//*****************************************
Console.WriteLine("IsNullOrEmpty Samples");
value = null;
Console.Write("value = null: ");
Console.WriteLine(string.IsNullOrEmpty(value));

value = "";
Console.Write("value = '': ");
Console.WriteLine(string.IsNullOrEmpty(value));

value = " ";
Console.Write("value = ' ': ");
Console.WriteLine(string.IsNullOrEmpty(value));

value = "Some Text";
Console.Write("value = 'Some Text': ");
Console.WriteLine(string.IsNullOrEmpty(value));
Console.WriteLine();
```

Try It Out

Run the application.

Lab 3: Simulate IsNullOrWhiteSpace() Using Equality and || Operators

Add the following code to the **Program.cs** file.

```
//*****************************************
// Simulate IsNullOrWhiteSpace Samples
//*****************************************
Console.WriteLine("Simulate IsNullOrWhiteSpace
Samples");
value = null;
Console.Write("value = null: ");
Console.WriteLine(string.IsNullOrEmpty(value) ||
value.Trim().Length == 0);

value = "";
Console.Write("value = '': ");
Console.WriteLine(string.IsNullOrEmpty(value) ||
value.Trim().Length == 0);

value = " ";
Console.Write("value = ' ': ");
Console.WriteLine(string.IsNullOrEmpty(value) ||
value.Trim().Length == 0);

value = "Some Text";
Console.Write("value = 'Some Text': ");
Console.WriteLine(string.IsNullOrEmpty(value) ||
value.Trim().Length == 0);
Console.WriteLine();
```

Try It Out

Run the application.

Lab 4: Using the IsNullOrWhiteSpace() Method

Add the following code to the **Program.cs** file.

```
//*****************************************
// IsNullOrWhiteSpace Samples
// This is the same as above, but is faster
//*****************************************
Console.WriteLine("IsNullOrWhiteSpace Samples");

value = null;
Console.Write("value = null: ");
Console.WriteLine(string.IsNullOrWhiteSpace(value));

value = "";
Console.Write("value = '': ");
Console.WriteLine(string.IsNullOrWhiteSpace(value));

value = " ";
Console.Write("value = ' ': ");
Console.WriteLine(string.IsNullOrWhiteSpace(value));

value = "Some Text";
Console.Write("value = 'Some Text': ");
Console.WriteLine(string.IsNullOrWhiteSpace(value));
```

Try It Out

Run the application.