C# Comments (Single Line, Multiline, XML)

In c#, **Comments** are self-explanatory notes to provide detailed information about the code which we wrote in our applications.

It's always a good practice to include comments in our c# code to provide detailed information about the functionality, like what a specific block or line of code can do. It will benefit anyone else who examines the code.

In c#, we can include the comments anywhere in the program without affecting our code. The comments in c# do not affect an application's performance because the comments won't be compiled and executed by the compiler.

In c#, there are three types of comments available, those are

- Single-line Comments
- Multi-line Comments
- XML Comments

C# Single Line Comments

In c#, **Single Line Comments** are defined by using **//** (**double forward slash**).

Following is the syntax of defining the single-line comments in the c# programming language.

```
// Single Line Comment
```

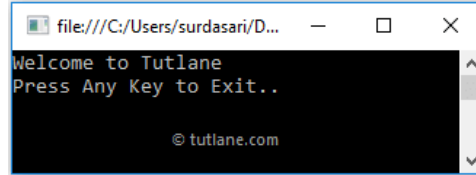Now we will see how to define a single-line comment in c# programs with examples.

Following is the example of defining the single-line comments in the c# programming language.

```
using System;

namespace Tutlane
{
    class Program
    {
        static void Main(string[] args)
        {
            // Calling Method to Show Greet Messaging
            GreetMessage();
            Console.WriteLine("Press Any Key to Exit..");
            Console.ReadLine(); // This method to read the commands from a console
        }
        // This Method will display the welcome message
        public static void GreetMessage()
        {
            Console.WriteLine("Welcome to Tutlane");
        }
    }
}
```

If you observe the above code, we defined a single-line comment to describe the specific block or line of code in our c# application.

When we execute the above c# program, we will get the result below.

This is how we can use single-line comments to provide detailed information about our c# application's functionality.

C# Multiline comments

In c#, Multiline Comments are used to comment the multiple lines of code, and the multiple lines of comments are surrounded by slash and asterisk like **/* ..... */** .

Following is the syntax of defining the multiline comments in the c# programming language.

```
/* Multi Line Comment */
```

Now we will see how to define multiline comments in c# programs with examples.
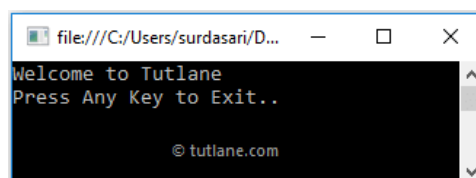
Following is the example of defining the multiline comments in the c# programming language.

```
using System;

namespace Tutlane
{
    class Program
    {
        static void Main(string[] args)
        {
            /*
             Define & assign a variable and
             Send a variable to the method to display
            */
            string msg = "Welcome to Tutlane";
            GreetMessage(msg);
            Console.WriteLine("Press Enter Key to Exit..");
            Console.ReadLine();
        }
        public static void GreetMessage(string message)
        {
            Console.WriteLine(message);
        }
    }
}
```

If you observe the above code, we defined multiline comments to describe the specific block or line of code in our c# application.

When we execute the above c# program, we will get the result below.

This is how we can use multiline comments to provide detailed information about our c# application's functionality.

C# XML Comments

In c#, **XML Comments** are a special type of comments, and these will be added above the definition of any user-defined type or member.

In c#, the XML Comments are defined by using **///** (triple forward slashes) and with XML formatted comment body.

Following is the syntax of defining the XML comments in the c# programming language.

```
///<summary>
/// This class does something.
///</summary>

public class SomeClass
{
```

```
    }
```

Now, we will see how to define XML comments in c# programs with examples.

Following is the example of defining XML comments in the c# programming language.
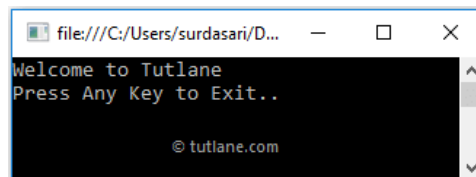
```
using System;

namespace Tutlane
{
    class Program
    {
        static void Main(string[] args)
        {
            string msg = "Welcome to Tutlane";
            GreetMessage(msg);
            Console.WriteLine("Press Enter Key to Exit..");
            Console.ReadLine();
        }
        ///<summary>
        /// Method to Display Welcome Message
        ///</summary>
        ///<param name="message"></param>
        public static void GreetMessage(string message)
        {
            Console.WriteLine(message);
        }
    }
}
```

If you observe the above code, we defined XML comments to describe the specific block or line of code in our c# application.

Here the `<summary>` tag is used to add detailed information about a type or member and `<param>` tag is used to describe the method parameters.

When we execute the above c# program, we will get the result below.

This is how we can use XML comments to provide detailed information about our c# application's functionality.