**Part 5 - C# Tutorial - Common Operators**

In this video, we will discuss the **common operators that are available in c# programming language**.

Assignment Operator **=**  
Arithmetic Operators like **+,-,\*,/,%**  
Comparison Operators like **==, !=,>, >=, <, <=**  
Conditional Operators like **&&, ||**  
Ternary Operator **?:**  
Null Coalescing Operator **??**

**Examples used in the demo**

using System;

namespace ConsoleApplication1

{

    class Program

    {

        public static void Main()

        {

            // Assignment Operator example

            // Single = is the assignment operator

            int i = 10;

            bool b = true;

            // For dividing 2 numbers we can use either

            // % or / operators

            int numerator = 10;

            int denominator = 2;

            // Arithmentic operator / returns quotient

            int quotient = numerator / denominator;

            Console.WriteLine("Quotient = {0}", quotient);

            // Arithmentic operator % returns remainder

            int remainder = numerator % denominator;

            Console.WriteLine("Remainder = {0}", remainder);

            // To compare if 2 numbers are

            // equal use comparison operator ==

            int number = 10;

            if (number == 10)

            {

                Console.WriteLine("Number is equal to 10");

            }

            // To compare if 2 numbers are not

            // equal use comparison operator !=

            if (number != 5)

            {

                Console.WriteLine("Number is not equal to 5");

            }

            // When && operator is used all the conditions must

            // be true for the code in the "if" block to be executed

            int number1 = 10;

            int number2 = 20;

            if (number1 == 10 && number2 == 20)

            {

                Console.WriteLine("Both conditions are true");

            }

            // When || operator is used the code in the "if" block

            // is excuted if any one of the condition is true

            number1 = 10;

            number2 = 21;

            if (number1 == 10 || number2 == 20)

            {

                Console.WriteLine("Atleast one of the condition is true");

            }

        }

    }

}  
  
**The example below is not using the ternary operator.** Look at the amount of code we have to write to check if a number is equal to 10, and then initialise a boolean variable to true or false depending on whether the number is equal to 10 or not.

using System;

namespace ConsoleApplication1

{

    class Program

    {

        public static void Main()

        {

            int number = 10;

            bool isNumber10;

            if (number == 10)

            {

                isNumber10 = true;

            }

            else

            {

                isNumber10 = false;

            }

            Console.WriteLine("Number == 10 is {0}", isNumber10);

        }

    }

}

**Ternary operator example :** We have rewritten the above program using ternary operator. Notice the amount of code we have to write is greatly reduced.

using System;

namespace ConsoleApplication1

{

    class Program

    {

        public static void Main()

        {

            int number = 10;

            // Ternary operator example

            bool isNumber10 = number == 10 ? true : false;

            Console.WriteLine("Number == 10 is {0}", isNumber10);

        }

    }

}