

# C# - LOGICAL OPERATORS

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Following table shows all the logical operators supported by C#. Assume variable **A** holds Boolean value true and variable **B** holds Boolean value false, then:

Operator	Description	Example
&&	Called Logical AND operator. If both the operands are non zero then condition becomes true.	<b>A &amp;&amp; B</b> is false.
	Called Logical OR Operator. If any of the two operands is non zero then condition becomes true.	A    B is true.
!	Called Logical NOT Operator. Use to reverses the logical state of its operand. If a condition is true then Logical NOT operator will make false.	! <b>A &amp;&amp; B</b> is true.

## Example

The following example demonstrates all the logical operators available in C#:

```
using System;
namespace OperatorsApp1
{
    class Program
    {
        static void Main(string[] args)
        {
            bool a = true;
            bool b = true;

            if (a && b)
            {
                Console.WriteLine("Line 1 - Condition is true");
            }

            if (a || b)
            {
                Console.WriteLine("Line 2 - Condition is true");
            }
            /* lets change the value of a and b */
            a = false;
            b = true;

            if (a && b)
            {
                Console.WriteLine("Line 3 - Condition is true");
            }
            else
            {
                Console.WriteLine("Line 3 - Condition is not true");
            }

            if (!(a && b))
            {
                Console.WriteLine("Line 4 - Condition is true");
            }
            Console.ReadLine();
        }
    }
}
```

When the above code is compiled and executed, it produces the following result:

```
Line 1 - Condition is true  
Line 2 - Condition is true  
Line 3 - Condition is not true  
Line 4 - Condition is true
```

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