

C# - IF...ELSE STATEMENT

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An **if** statement can be followed by an optional **else** statement, which executes when the boolean expression is false.

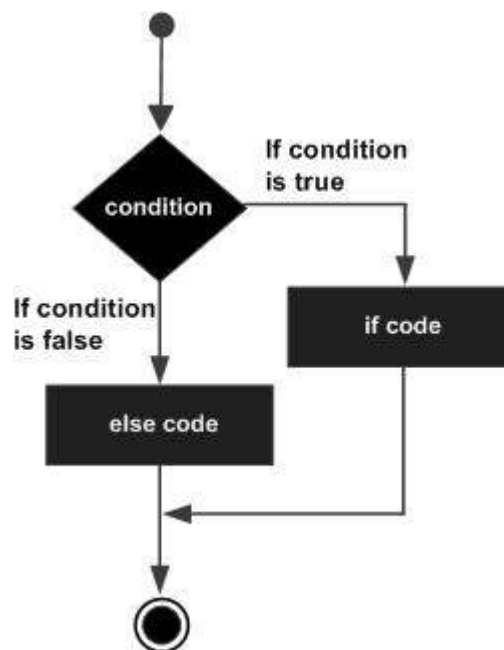
Syntax

The syntax of an **if...else** statement in C# is:

```
if(boolean_expression)
{
    /* statement(s) will execute if the boolean expression is true */
}
else
{
    /* statement(s) will execute if the boolean expression is false */
}
```

If the boolean expression evaluates to **true**, then the **if block** of code is executed, otherwise **else block** of code is executed.

Flow Diagram



Example

```
using System;
namespace DecisionMaking
{
    class Program
    {
        static void Main(string[] args)
        {
            /* local variable definition */
            int a = 100;

            /* check the boolean condition */
            if (a < 20)
            {
                /* if condition is true then print the following */
                Console.WriteLine("a is less than 20");
            }
        }
    }
}
```

```

        else
        {
            /* if condition is false then print the following */
            Console.WriteLine("a is not less than 20");
        }
        Console.WriteLine("value of a is : {0}", a);
        Console.ReadLine();
    }
}
}

```

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

```

a is not less than 20;
value of a is : 100

```

The if...else if...else Statement

An **if** statement can be followed by an optional **else if...else** statement, which is very useful to test various conditions using single if...else if statement.

When using if, else if, else statements there are few points to keep in mind.

- An if can have zero or one else's and it must come after any else if's.
- An if can have zero to many else if's and they must come before the else.
- Once an else if succeeds, none of the remaining else if's or else's will be tested.

Syntax

The syntax of an **if...else if...else** statement in C# is:

```

if(boolean_expression 1)
{
    /* Executes when the boolean expression 1 is true */
}
else if( boolean_expression 2)
{
    /* Executes when the boolean expression 2 is true */
}
else if( boolean_expression 3)
{
    /* Executes when the boolean expression 3 is true */
}
else
{
    /* executes when the none of the above condition is true */
}

```

Example

```

using System;
namespace DecisionMaking
{
    class Program
    {
        static void Main(string[] args)
        {
            /* local variable definition */
            int a = 100;

            /* check the boolean condition */
            if (a == 10)
            {
                /* if condition is true then print the following */
                Console.WriteLine("Value of a is 10");
            }
        }
    }
}

```

```

    }

    else if (a == 20)
    {
        /* if else if condition is true */
        Console.WriteLine("Value of a is 20");
    }

    else if (a == 30)
    {
        /* if else if condition is true */
        Console.WriteLine("Value of a is 30");
    }

    else
    {
        /* if none of the conditions is true */
        Console.WriteLine("None of the values is matching");
    }
    Console.WriteLine("Exact value of a is: {0}", a);
    Console.ReadLine();
}
}
}

```

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

```

None of the values is matching
Exact value of a is: 100

```