

# if-else Statement

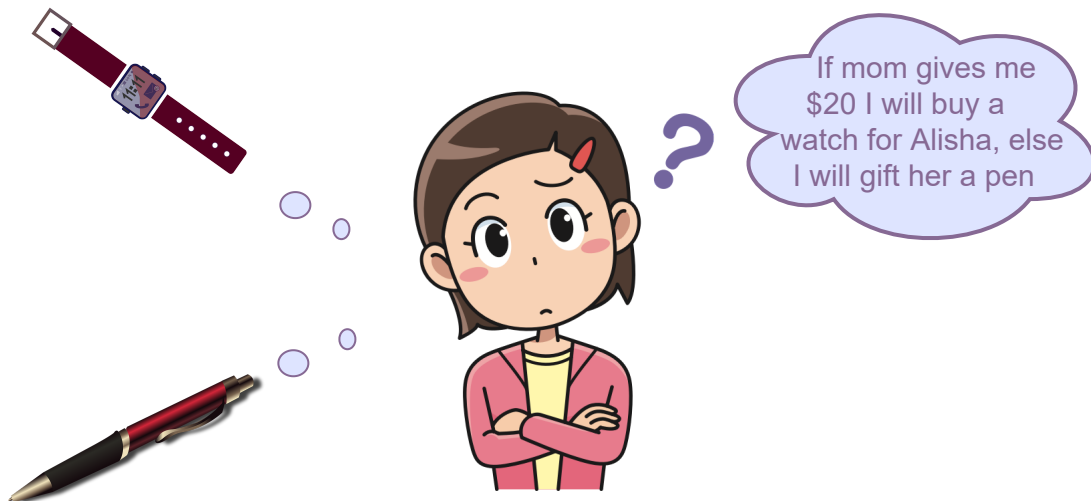
In this lesson, you will get acquainted with the if-else statement in C++.

## We'll cover the following ^

- Introduction
  - Syntax
  - Flow chart
  - Example program

## Introduction #

Suppose you can buy a watch for your friend if you have at least \$20. Otherwise, you can gift them a pen.



In C++, we can demonstrate this kind of behavior using the `if-else` statement.

*In the **if-else** statement, when the condition in an if statement evaluates to false, the compiler executes the code inside the else block.*

## Syntax #

The basic syntax of the `if-else` statement is given below:

Keyword    Return type of condition is boolean

```
if ( condition ) {
```

```
    statement 1 ;
```

```
    statement 2 ;
```

```
        .
```

```
        .
```

```
        .
```

```
    statement N ;
```

```
}
```

if body

Keyword

```
else {
```

```
    statement 1 ;
```

```
    statement 2 ;
```

```
        .
```

```
        .
```

```
        .
```

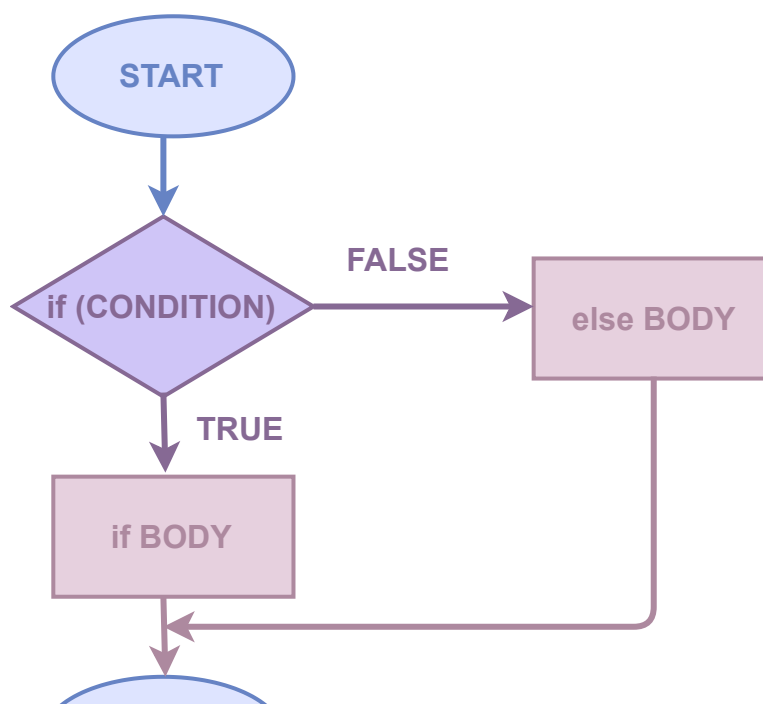
```
    statement N ;
```

```
}
```

else body

## Flow chart #

The flow chart given below explains the working of the `if-else` statement:



In the above figure:

- If the condition in an `if` statement is true, the compiler executes the code inside the `if` body.
- If the condition in an `if` statement is false, the compiler executes the code inside the `else` body.

## Example program #

Let's convert the example given above into a C++ program.

Run the code below and see how the `if-else` statement works!

```
#include <iostream>

using namespace std;

int main() {
    // Initialize variable money
    int money = 10;
    // if condition
    if (money >= 20) {
        // if block
        cout << "You can gift a watch" << endl;
    } else {
        // else block
        cout << "You can gift a pen " << endl;
    }
    return 0;
}
```



**Line No. 7:** Sets the value of `money` to `10`

**Line No. 9:** Checks if the value of `money` is greater than or equal to `20`. Since `money` is less than `20`, therefore, a condition in the `if` statement returns `0`.

**Line No. 11:** Prints `You can gift a watch` in output. The condition in the `if` statement is false; therefore, this line does not execute.

**Line No. 14:** The condition in the `if statement` returns `0`; therefore, the code inside the `else` block executes, and it prints `You can gift a pen` to the console.



If `number = 89.3`, then what is the output of the following code?

```
float number;

if (number < 85.1) {
    cout << "Hey! I am less than 85.1" << endl;
} else {
    cout << "Hey! I am greater than 85.1" << endl;
}

cout << "number = " << number;
```

Retake Quiz

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This sums up our discussion of the `if-else` statement. Let's discuss the `else-if` statement in the upcoming lesson.