Hello CPPBudddies

Day 05

Welcome

To

C++ COMPLETE BOOTCAMP

Your Guide To A Solid Foundataion in C++

Let us begin

IMPORTANT TOPIC

LOGIC ▶

DEVELOPMENT

LEARN HOW PROGRAM
BEHAVES SMARTLY

Table of Contents

Points for discussion

if condition

if else condition

if else-if else condition

switch condition

demo of if else

demo of switch

if condition

if else condition

if else if else condition

Consider the scenario

You want to go to your friend's home :-

- when it is not raining
- when you are healthy
- when you are allowed by mom

How can you incorporate the logic ?

if statement

if statements in C++ is used to control the program flow based on some **condition**

if is used to execute some statement code block if the expression is evaluated to true.

This is the simplest way to modify the control flow of the program.

Syntax

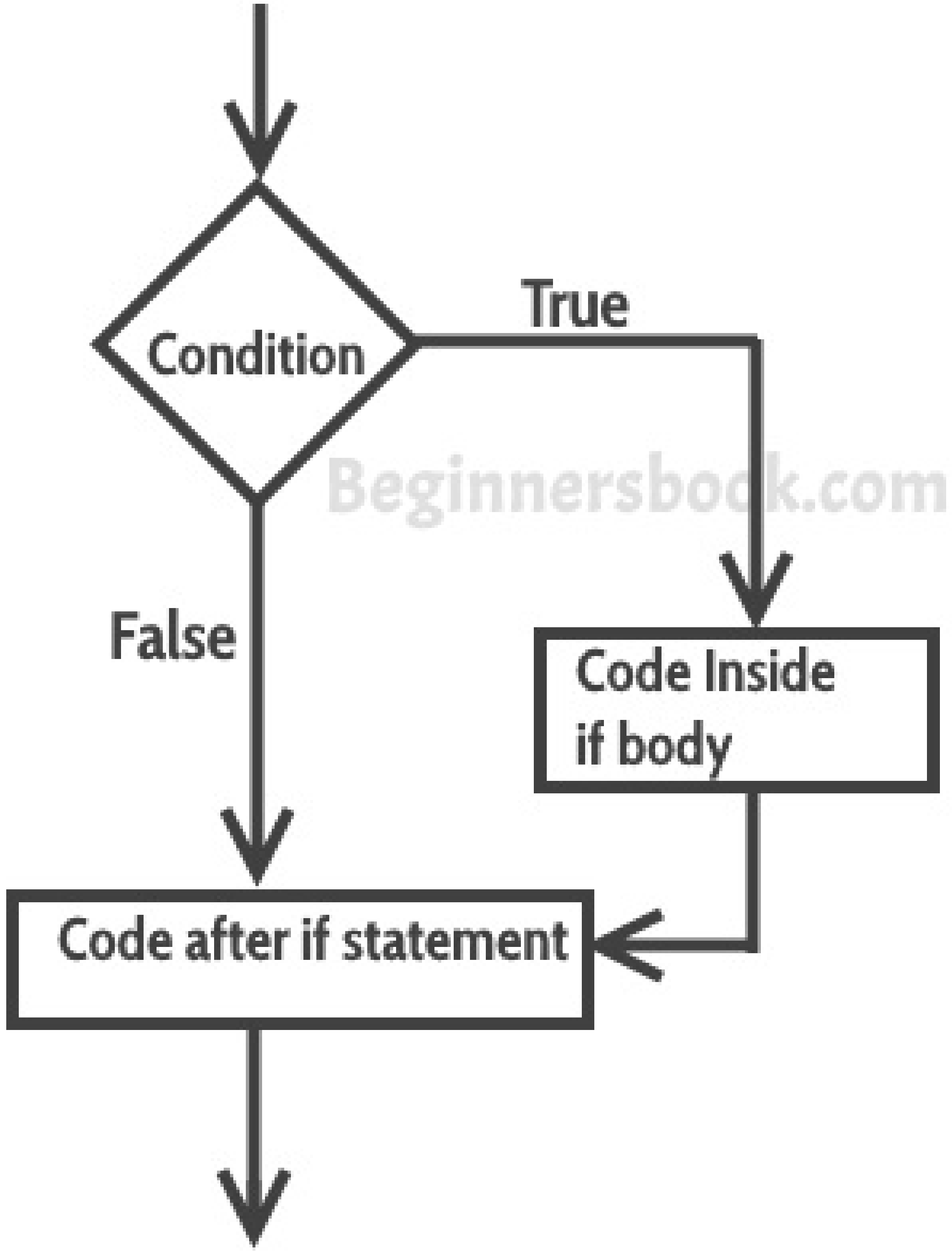
```
if(test_expression){
statement 1;
statement 2;
 ...
}
```

There can be a statement or a set of statements,
and if the test expression is evaluated to true,
the statement block will get executed, or it will get skipped.

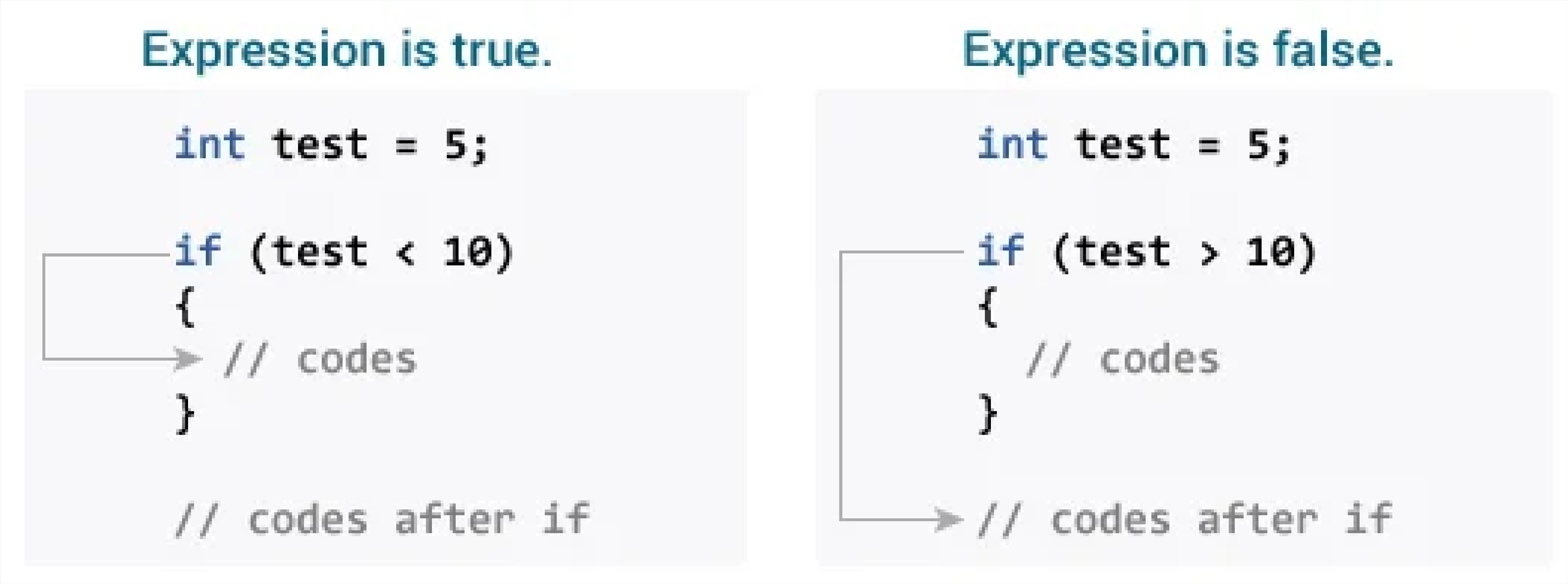
Example of a C++ Program to Demonstrate if Statement

Example:

```
#include <iostream>
using namespace std;
int main()
{
int a = 15, b = 20;
 if (b > a)
 {
 cout << "b is greater" << endl;
 }
 }
```



Flow in **if condition**



Expression is true.

```
int test = 5;

if (test < 10)
{
  // codes
}

// codes after if
```

Expression is false.

```
int test = 5;

if (test > 10)
{
  // codes
}

// codes after if
```

DEMO

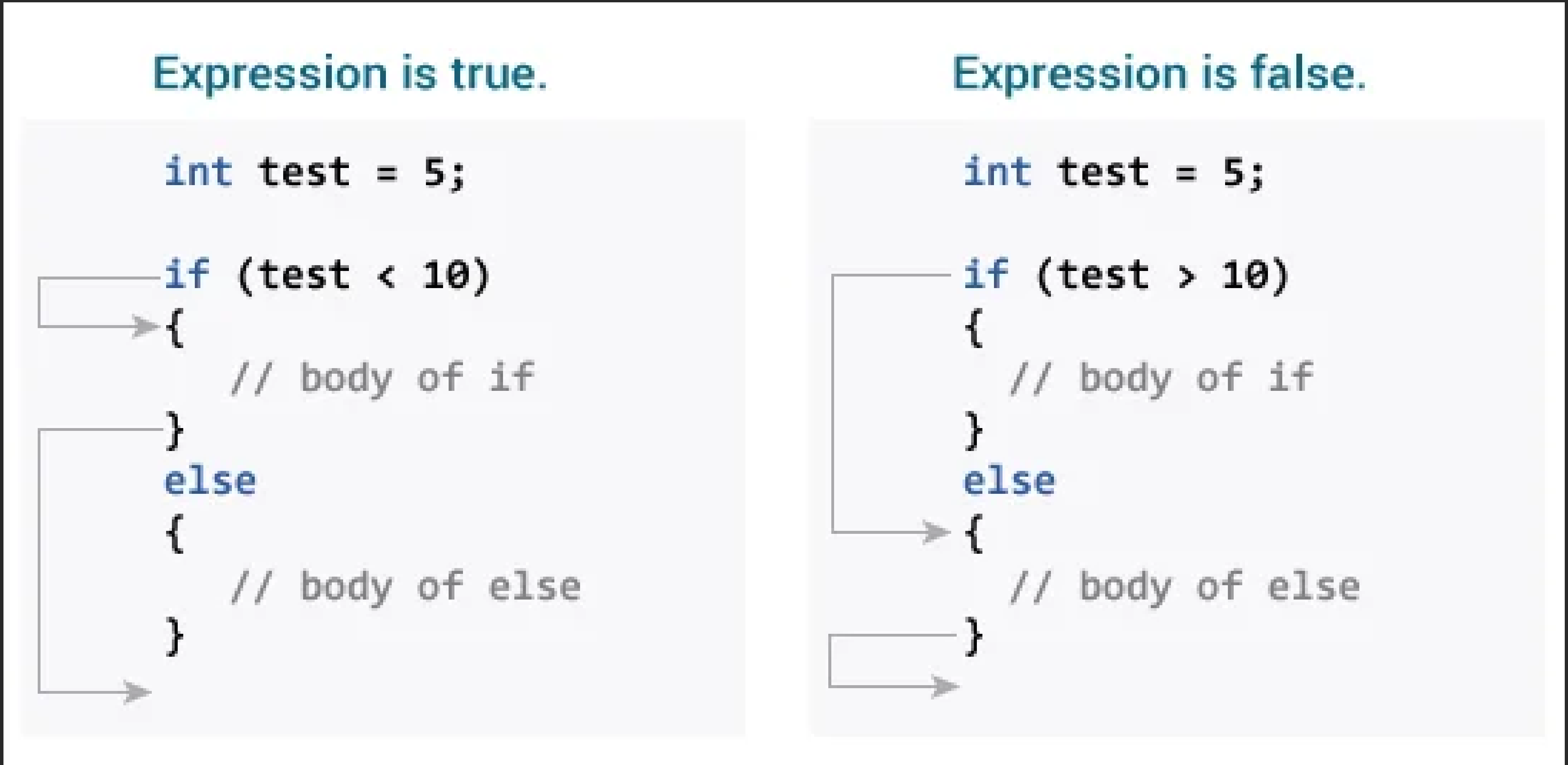
if else condition

used to execute some statement code block if the expression is evaluated to true, otherwise executes else statement code block.

The if statement may have an optional else block

SYNTAX

```
if (test expression) {
    // run code if test expression is true
}
else {
    // run code if test expression is false
}
```



Expression is true.

```
int test = 5;

if (test < 10)
{
  // body of if
}
else
{
  // body of else
}
```

Expression is false.

```
int test = 5;

if (test > 10)
{
  // body of if
}
else
{
  // body of else
}
```

How if...else statement works?

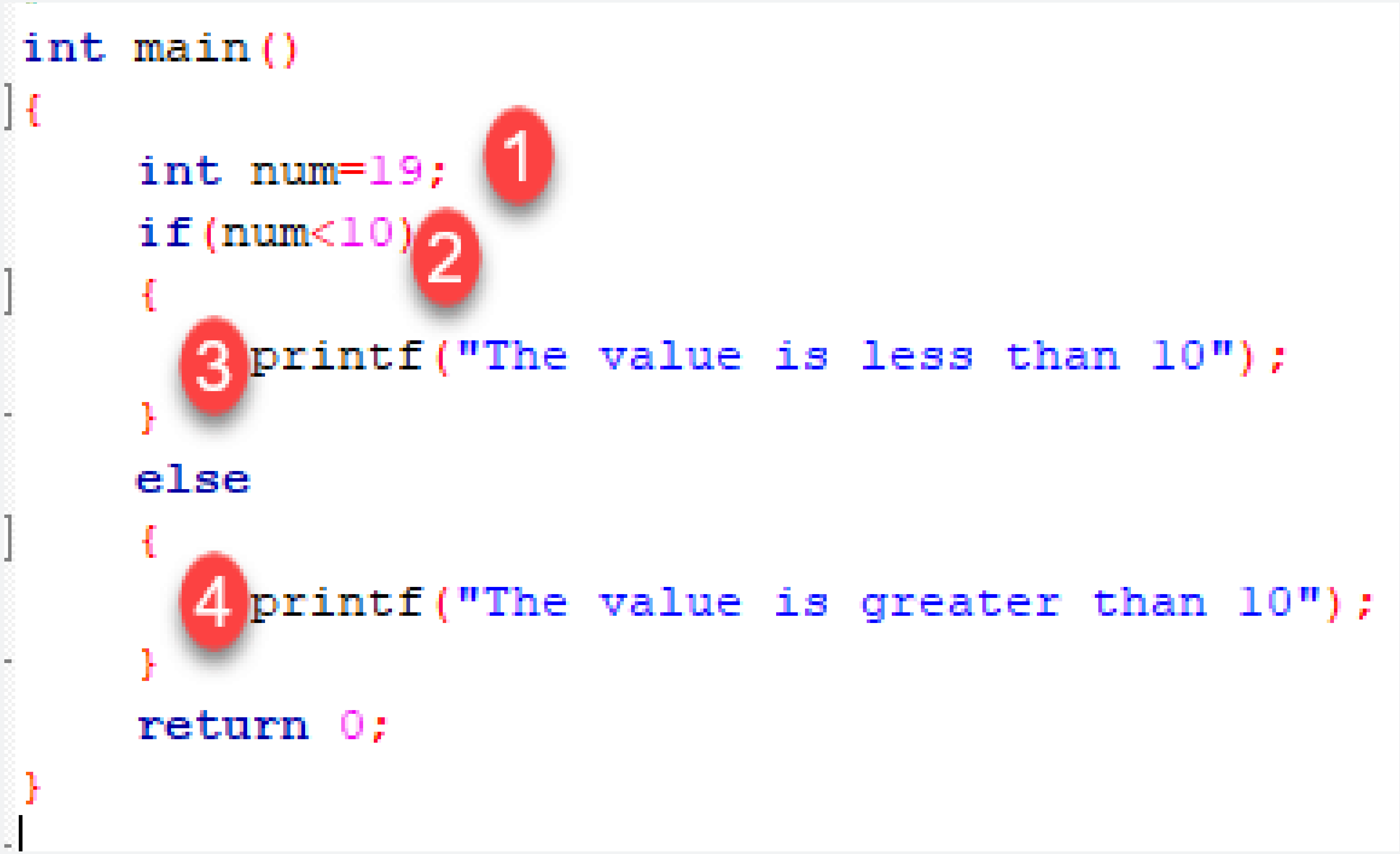
If the test expression is evaluated to true,

- statements inside the body of if are executed.
- statements inside the body of else are skipped from execution.

If the test expression is evaluated to false,

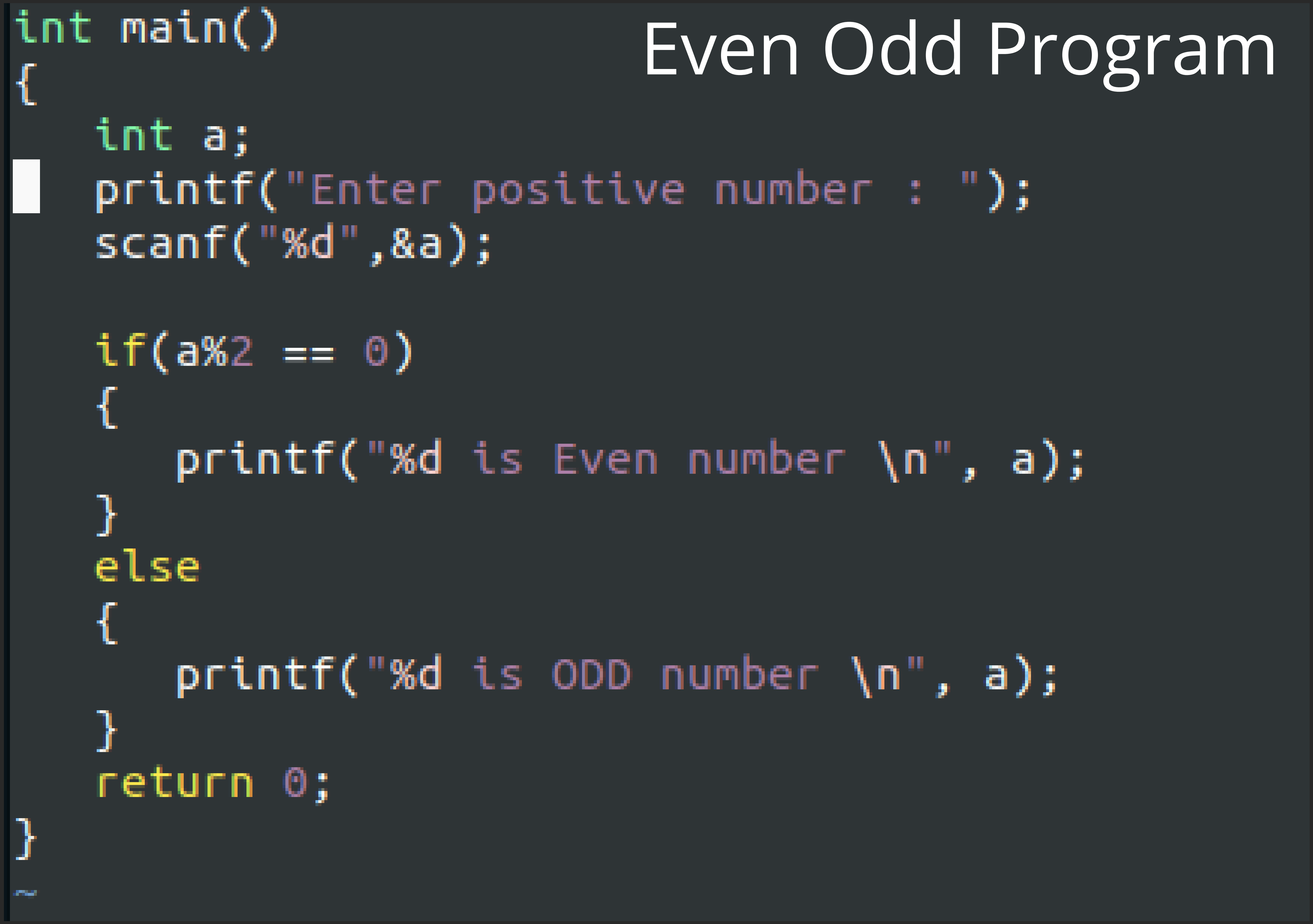
- statements inside the body of else are executed
- statements inside the body of if are skipped from execution.

What will the order of execution ?



```
int main()
{
    int num=19;
    if(num<10)
    {
       printf("The value is less than 10");
    }
    else
    {
       printf("The value is greater than 10");
    }
    return 0;
}
```

Even Odd Program



```
int main()
{
    int a;
    printf("Enter positive number : ");
    scanf("%d",&a);

    if(a%2 == 0)
    {
        printf("%d is Even number \n", a);
    }
    else
    {
        printf("%d is ODD number \n", a);
    }
    return 0;
}
~
```

DEMO