



Conditional Statement





Need of Conditional Statements

There come situations in real life when we need to make some decisions and based on these decisions, we decide what should we do next. Similar situations arise in programming also where we need to make some decisions and based on these decisions we will execute the next block of code.





Real-Life Example: Cookies

You have seen on many websites that they ask whether you want to accept cookies, either "yes" or "no." This is also a type of condition. Based on your decision, they store some of your information.

Condition: Do you want to accept cookies?

Decision: They store some of your information.



if-Else Introduction

- In Java, an if-else statement is used to check a condition and execute a block of statements if the condition is true.
- If the condition is not true, the else block of statements will be executed.
- if-else statement allows us to decide whether a certain condition is met or not.
- It is a fundamental control flow construct in Java.

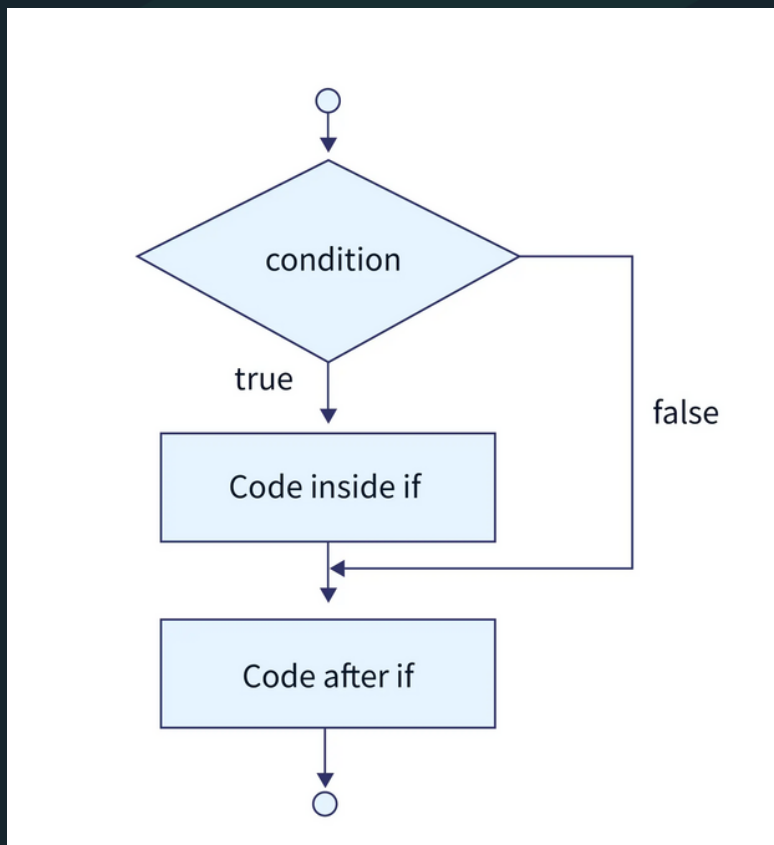


Syntax: if else



```
if(condition){  
    statement(s); // condition is true  
}else{  
    statement(s); // condition is false  
}
```

visualization





```
public class Geekster {  
    public static void main(String[] args) {  
        int number = 10;  
  
        if (number > 5) {  
            System.out.println("The number is greater than 5.");  
        } else {  
            System.out.println("The number is not greater than 5.");  
        }  
    }  
}
```

In this example:

- We declare a variable called number and assign it the value 10.
- We use an if statement to check whether number is greater than 5.
- If the condition inside the if statement is true (which it is in this case), the code block inside the if block is executed, and it prints "The number is greater than 5."



- If the condition inside the if statement is false, the code block inside the else block is executed, and it prints "The number is not greater than 5."
- So, in this example, since number is indeed greater than 5, the program will output "The number is greater than 5."



Nested if-else

Suppose you go to a mall where there are various items available, including T-shirts, jeans, and other products. You specifically want to buy a T-shirt. Let's say you find a T-shirt section with sizes available in S, M, and L.

Since you prefer a medium (M) size, you have a condition that the T-shirt you buy must be in size M. If you find a T-shirt in size M that meets your preference, you will buy it.

So we Can write this in Programming language.



```
if(conditionOne: That it must be T-shirt) {  
  
    if(conditionTwo: the size must be M) {  
        StatementSecond(s);  
    }  
}
```



In java programming, if there is an if statement written inside another if block, then it is called a nested if statement.

Syntax:

```
if(condition 1) {  
    statement 1; //executes when condition 1 is true  
    if(condition 2) {  
        statement 2; //executes when condition 2 is true  
    }  
else{  
    statement 2; //executes when condition 2 is false  
}  
}
```