

Lesson:

Condition



What we will learn

- if
- if else
- nested if
- if else if ladder

Introduction to conditional statements:

Programming Languages are tools that allow us to write code that instructs the computer to do something. In every programming language, the code needs to make decisions and carry out actions accordingly depending on different inputs.

Human Beings make decisions all the time. For example, every morning, we make a decision between eating or not eating before starting our daily chores. Conditional statements allow us to represent such decision-making in JavaScript, from the choice that must be made.

JavaScript is a programming language that is commonly used to create interactive and dynamic elements on websites. One of the key features of JavaScript is the ability to use conditional statements to control the flow of a program.

Conditions work on boolean values, true or false. It is true if it meets the requirement, false otherwise. That is expressions (conditions) are evaluated to be either true or false.

Conditional statements in JavaScript:

1. if statement:

The most basic form of a conditional statement is the if statement.

The syntax for an if statement is as follows:

```
JavaScript
if (condition) {
    // statements
}
```

The condition is any expression that can be evaluated as true or false. For example, you can use a comparison operator (such as `<`, `>`, `==`) to compare two values, or you can use a logical operator (such as `&&`, `||`) to combine multiple conditions.

Ex:

Divide only, when the divisor is `!= 0`

JavaScript

```
let dividend = 10;
let divisor = 5;

if(divisor != 0){
  let result = dividend/divisor;
  console.log(result)
}
// Output
// 2
```

2. if-else statement:

An if statement can also include an optional else statement, which will execute if the condition is false.

The syntax for an if-else statement is as follows:

JavaScript

```
if (condition) {
  //if statements
} else {
  //else statements
}
```

Ex:

Only age above 18 are eligible for registration.

JavaScript

```
age = 15;

if(age < 18){
  console.log("Sorry, you are not eligible")
}else{
  console.log("Registered Successfully")
}

// Output
// Sorry, you are not eligible
```

Ex:

Allow only admin to fetch user details

JavaScript

```
isAdmin = false;

if(isAdmin){
    console.log("fetch user details")
}else{
    console.log("This operation is only for Admins")
}

// Output
// This operation is only for Admins
```

3. Nested if statement:

We can nest if else statements inside another if else statements.

The syntax for an nested if statement is as follows:

JavaScript

```
if (condition1) {
    if(condition2){
        // we can add as many nested if as we want
    }
}
```

Ex:

Check if the user is logged in and if the logged in user is admin or not.

JavaScript

```
if (isLoggedIn) {
    if (isAdmin) {
        console.log("The logged in user is admin.");
    } else {
        console.log("The logged in user is not an admin");
    }
}
```

4. if else if ladder:

JavaScript also supports the use of else if statement, which allows you to chain multiple conditions together also called if else ladder.

The syntax for an if else if ladder is as follows:

JavaScript

```
if (condition1) {  
    //statement1  
} else if (condition2) {  
    //statement2  
} else {  
    //statement3  
}
```

Note 1: You can chain as many else-if statements as you want.

Note 2: Just like the if statement in the if-else ladder also we can omit the last else block, it is not mandatory to put.

Ex:

Let's write a program to check if the given number is odd or even

JavaScript

```
if (num == 0) {  
    console.log("Zero is neither an odd number nor an even  
number");  
} else if (num % 2 == 0) {  
    console.log("The number given is an even number");  
} else {  
    console.log("The number given is an odd number");  
}
```