

# JavaScript

## *Conditional Statements*

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**truthy &  
falsy**



truthy /expressions that  
evaluate to true/

if (true)  
if ({})  
if ([])  
if (42)  
if ("0")  
if ("false")  
if (new Date())  
if (-42)  
if (12n)  
if (3.14)  
if (-3.14)  
if (Infinity)  
if (-Infinity)

[resource](#)

# falsy

falsy /expressions that  
evaluate to false/

**false** /The keyword false/

**0** /The number zero/

**-0** /The number negative zero/

**0n** /BigInt, when used as a boolean, follows the same rule as a Number. 0n is *falsy*./

**""** /Empty string value/

**null** /the absence of any value/

**undefined** /the primitive value/

**NaN** /not a number/

resource



# **comparison and logical operators**

# Comparison operators

Operator	Description	Comparing	Returns
==	equal to	x == 8	false
		x == 5	true
		x == "5"	true
===	equal value and equal type	x === 5	true
		x === "5"	false
!=	not equal	x != 8	true
!==	not equal value or not equal type	x !== 5	false
		x !== "5"	true
		x !== 8	true
>	greater than	x > 8	false
<	less than	x < 8	true
>=	greater than or equal to	x >= 8	false
<=	less than or equal to	x <= 8	true



# Logical operators

Operator	Description	Example
&&	and	(x < 10 && y > 1) is true
	or	(x == 5    y == 5) is false
!	not	!(x == y) is true



# Ternary operator

## *Syntax*

```
variablename = (condition) ? value1:value2
```

## *Example*

```
var voteable = (age < 18) ? "Too young":"Old enough";
```

## *Result*

```
17// Too young  
25// Old enough
```

# Comparing different types

```
2 < 12 //true  
2 < "12" //true  
2 < "John" //false  
2 > "John" //false  
2 == "John" //false  
"2" < "12" //false  
"2" > "12" //true  
"2" == "12"//false
```



if/else if/else





# if/else if/else

## Syntax

```
if (condition1) {  
    //  
} else if (condition2) {  
    //  
} else {  
    //  
}
```

# if/else if/else

## Example

```
var greeting;  
  
if (time < 10) {  
    greeting = "Good morning";  
} else if (time < 20) {  
    greeting = "Good day";  
} else {  
    greeting = "Good evening";  
}  
  
alert( greeting );
```



switch



## Syntax

```
switch(expression) {  
    case x:  
        // code block  
        break;  
    case y:  
        // code block  
        break;  
    default:  
        // code block  
}
```

## Example

*The `getDay()` method returns the weekday as a number between 0 and 6.*

*(Sunday=0, Monday=1, Tuesday=2 ..)*

```
switch (new Date().getDay()) {  
    case 0:  
        day = "Sunday";  
        break;  
    case 1:  
        day = "Monday";  
        break;  
    case 2:  
        day = "Tuesday";  
        break;  
    case 3:  
        day = "Wednesday";  
        break;  
    case 4:  
        day = "Thursday";  
        break;  
    case 5:  
        day = "Friday";  
        break;  
    case 6:  
        day = "Saturday";  
}
```



## Example 2

### Switching Details

If multiple cases matches a case value, the **first** case is selected.

If no matching cases are found, the program continues to the **default** label.

If no default label is found, the program continues to the statement(s) **after the switch**.

```
switch (new Date().getDay()) {  
    case 6:  
        text = "Today is Saturday";  
        break;  
    case 0:  
        text = "Today is Sunday";  
        break;  
    default:  
        text = "Looking forward to the  
Weekend";  
}
```



## Example 3

### Strict Comparison

Switch cases use **strict** comparison (===).

The values must be of the same type to match.

A strict comparison can only be true if the operands are of the same type.

In this example there will be no match for x:

[more info](#)

```
var x = "0";  
switch (x) {  
  case 0:  
    text = "Off";  
    break;  
  case 1:  
    text = "On";  
    break;  
  default:  
    text = "No value found";  
}
```



# string properties and methods



# String properties and methods



## Properties

**length** returns the number of characters in a string

## some JS String Methods

**indexOf()** method returns the position of the first occurrence of a specified value in a string. Returns -1 if the value to search for never occurs.

**replace()** method searches a string for a specified value, or a *regular expression*, and returns a new string where the specified values are replaced

**slice()** Extracts a part of a string and returns a new string

**split()** Splits a string into an array of substrings

[more info](#)

## some JS String Methods

**substr()** Extracts the characters from a string, beginning at a specified start position, and through the specified number of character

**trim()** Removes whitespace from both ends of a string

**toLowerCase()** Converts a string to lowercase letters

**toUpperCase()** Converts a string to uppercase letters



# Questions?



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