Variable declaration in JS

<script type="text/javascript">

<script>

var i=0;

var i=1.1;

var=”s”;

document.write(“TY”);

document.write(“Value=”+i);

document.write(“Value=”+i);

**Variable in Javascript**

var x =5;  
var y =6;  
var z = x + y;

var pi =3.14;   
var person ="John Doe";  
var answer ='Yes I am!';

var person ="John Doe", carName ="Volvo", price =200;

var x =5+2+3;

**Display the sum of 5 + 10, using two variables x and y.**

Program:

<html>

<body>

<script>

var x = 5;

var y = 10;

var c=x+y;

document.write(“Addition=”+c);

</script>

</body>

</html>

**Use a single var keyword to create three variables with the following values:**  
firstName = "John"   
lastName = "Doe"   
age = 35

Program:

<html>

<body>

<script>

var firstName = "John", lastName = "Doe", age = 35;

document.write (firstName + " " + lastName + " is " + age);

</script>

</body>

</html>

JavaScript Arithmetic Operators

+,-,\*,/,%,++,--

var x = 5 + 5;

var y = "5" + 5;

var z = "Hello" + “ ”+5

Adding a number and a string, returns a string.

10  
55  
Hello 5

JavaScript Comparison Operators

|  |  |
| --- | --- |
| **perator** | **Description** |
| == | equal to |
| === | equal value and equal type |
| != | not equal |
| !== | not equal value or not equal type |
| > | greater than |
| < | less than |
| >= | greater than or equal to |
| <= | less than or equal to |
| ? | ternary operator |

JavaScript Logical Operators

|  |  |
| --- | --- |
| **Operator** | **Description** |
| && | logical and |
| || | logical or |
| ! | logical not |

JavaScript Bitwise Operators

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Operator** | **Description** | **Example** | **Same as** | **Result** | **Decimal** |
| & | AND | 5 &1 | 0101 &0001 | 0001 | 1 |
| | | OR | 5 | 1 | 0101 | 0001 | 0101 | 5 |
| ~ | NOT | ~ 5 | ~0101 | 1010 | 10 |
| ^ | XOR | 5 ^ 1 | 0101 ^ 0001 | 0100 | 4 |
| << | Zero fill left shift | 5 <<1 | 0101 <<1 | 1010 | 10 |
| >> | Signed right shift | 5 >>1 | 0101 >>1 | 0010 | 2 |
| >>> | Zero fill right shift | 5 >>>1 | 0101 >>>1 | 0010 | 2 |

**Display the result of 10 / 5, using two variables x and y.**

<html>

<body>

<script>

var x = 10;

var y = 5;

document.write (x / y);

</script>

</body>

</html>

**Script tag in Html**

**1. in body tag**

**2. in head tag**

**3. in body and head tag**

**Function in JS**

|  |  |
| --- | --- |
|  | function add(a,b) |
|  | { |
|  | return a+b; |
|  | } |
|  |  |
|  | document.write(add(4,3)); |

Add two number using java function

<html>

<head>

<script>

function add(a,b)

{

return a+b;

}

</script>

</head>

<body>

<script>

document.write(add(4,3));

</script>

</body>

</html>

|  |  |
| --- | --- |
|  |  |

**Write a JavaScript program to get the current date.  
Expected Output :   
mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy**

<html>

<body>

<script>

var currentDate = new Date(),

day = currentDate.getDate(),

month = currentDate.getMonth() + 1,

year = currentDate.getFullYear();

document.write("dd/mm/yyyy format=")

document.write(day + "/" + month + "/" + year)

document.write("<br/>")

document.write("mm/dd/yyyy format=")

document.write(month + "/" + day + "/" + year)

document.write("<br/>")

document.write("mm-dd-yyyy format=")

document.write(month + "-" + day + "-" + year)

document.write("<br/>")

document.write("dd-mm-yyyy format=")

document.write(day + "-" + month + "-" + year)

document.write("<br/>")

</script>

</body>

</html>

**Display your name from prompt**

Program:

<html>

<body>

<script>

var firstName = prompt("What's your first name?", "");

document.write("<hr>Your name =");

document.write(firstName);

</script>

</body>

</html>

**Check whether number is odd or even**

<html>

<body>

<script>

var num = prompt("Enter Number", "");

if(num%2==0)

{

document.write("Your number is even=");

document.write(num);

}

else

{

document.write("Your number is odd=");

document.write(num);

}

</script>

</body>

</html>

Display Number from 1 to 5 using for loop

<html>

<body>

<script>

var i=1;

for (i=1;i<=5;i++)

{

document.write("The number is " + i);

document.write("<br />");

}

</script>

</body>

</html>

Number Square

1 1

2 4

3 9

4 16

5 25

**Factorial of a number**

<html>

<body>

<script>

var i,fact=1;

var num = prompt("Enter Number", "");

for(i=1;i<=num;i++)

{

fact=fact\*i;

}

document.write("Factorial of a Number="+fact);

</script>

</body>

</html>

**Print Number Pattern**

**1)**

**1 1 1**

**2 2 2**

**3 3 3**

2)

1 2 3

1 2 3

1 2 3

3)

|  |  |  |
| --- | --- | --- |
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

1 2 3

4 5 6

7 8 9

4)

\*

\* \*

\* \* \*

5)

\* \* \*

\* \*

\*

6)

1 3 5

7 9 11

13 15 17

7 )

Print number pattern

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

<body>

<script>

var i,j;

for(i=1; i <= 5; i++)

{

for(j=1; j<=i; j++)

{

document.write(j);

document.write(" ");

}

document.write("<br />");

}

</script>

</body>

</html>

**Switch**

<html>

<head>

<script type="text/javascript">

var n=prompt("Enter a number between 1 and 7");

switch (n)

{

case 1:

document.write("Sunday");

break;

case 2:

document.write("Monday");

break;

case 3:

document.write("Tuesday");

break;

case 4:

document.write("Wednesday");

break;

case 5:

document.write("Thursday");

break;

case 6:

document.write("Friday");

break;

case 7:

document.write("Saturday");

break;

default:

document.write("Invalid Weekday");

break

}

</script>

</head>

</html>

What is an Event ?

JavaScript's interaction with HTML is handled through events that occur when the user or the browser manipulates a page.

When the page loads, it is called an event.

When the user clicks a button, that click too is an event.

Other examples include events like pressing any key, closing a window, resizing a window, etc.

Developers can use these events to execute JavaScript coded responses, which cause buttons to close windows, messages to be displayed to users, data to be validated, and virtually any other type of response imaginable.

## Onclick Event Type

This is the most frequently used event type which occurs when a user clicks the left button of his mouse. You can put your validation, warning etc., against this event type.

**Display message on screen**

<html>

<head>

<script>

function hello()

{

alert("Hello World!");

}

</script>

</head>

<body>

<button onclick="hello()">Click Me</button></br></br>

</body>

</html>

**Display name after click on button**

<html>

<body>

<script>

function msg(name) {

alert("Hello " + name + ", hope you like JavaScript functions!");

}

</script>

<form>

First name:

<input type="input" name="n">

<input type="button" onclick="msg(form.n.value);" value="Display Message">

</form>

</body>

</html>

**String operation in JS**

**var str=”IT”**

**document.write(“String=”+str);**

**IT**

**\“IT”**

**document.write(“ \”str\””);**

\’

\”

\\

It’s OK

str.charAt(2);

str[2];

The only difference between accessing the character from a string using the charAt() and square bracket ([]) is that if no character is found, [] returns [undefined](https://www.tutorialrepublic.com/javascript-tutorial/javascript-data-types.php#undefined), whereas the charAt() method returns an empty string.

1. Finding length

str.length

2. Uppercase

str.toUpperCase()

3. Lowercase

str.toLowerCase()

## 4. JavaScript String slice(beginIndex, endIndex) Method

var s1="IT Department";

var s2=s1.slice(2,5);

5.

## JavaScript String trim() Method

The JavaScript String trim() method removes leading and trailing whitespaces from the string.

var s1="     IT Department    ";

var s2=s1.trim();

6.

### JavaScript String split() Method

var str="WT DBMS SEPM ";

document.write(str.split(" "));

IT, Department, TY, IT

7. Concatenation

S3=s2+s1;

s3=s2.concat(s1);

8. Reverse

document.write("my example text".split("").reverse().join(""));

9. Compare

if(s1==s2)

10. Palindrome

S1=Nitin

11. Substring

document.writeln(str.substring(4,5));

9. Copy

S2=s1

10.

Replace

S1=str.replace(“IT”,”Comp”);

11. Finding Index

str=”GHRCEM IT Department IT IT ”;

Pos=str.indexOf(IT);

Pos=str.lastIndexOf(IT);

It returns -1 if text not found

The search() method searches a string for a specified value and returns the position of the match.

var pos = str.search("IT");