

What is JavaScript?

Used to program the behavior of web pages

JavaScript was invented by Brendan Eich in 1995.

JavaScript code is inserted between `<script>` and `</script>` tags.

Javascript was developed by Netscape

JavaScript vs VBScript (Microsoft)

Javascript supports all browser, vbscript supports IE

Originally Sun Microsystem and now Oracle

Basic Structure

```
<!DOCTYPE html>
<head>
  <title>Document</title>
</head>
<script>
  let a=10; // line break also works
  let b=20;
  let c = a + b;
  document.write(c);
</script>
<body>
</body>
</html>
```

External Script

```
<script src="myScript.js"></script>is
```

Variables

let

const (constant, can't be changed)

Var –

var is function scoped and let is block scoped. Variable declared by let cannot be redeclared

Variables are case-sensitive, try camelCase, titlecase, with dash

Data Types (Primitive/Value type)

1. `let n=2;`
2. `let s = "Hello World";` //double or single quote
3. `let flag = true;` //true or false - boolean
4. `let name;` //undefined
5. `let cost=null;`

Type conversion

```
<script>
```

```
let value = true;  
alert(typeof value); // Boolean  
value = String(value);
```

```
let numStr="34";  
num = Number(numStr); // becomes a number 123
```

```
alert(Boolean(num))
```

```
/* Values that are intuitively "empty", like 0, an empty string, null,  
   undefined, and NaN, become false. Other values become true.*/
```

```
</script>
```

Console for errors

`inspect`

Comments // and /*

```
<script>  
  let name='John';  
  let age=20  
  /*  document.write(name)  
      console.log(name)  
      alert(name) */  
  d.innerHTML = `I am ${name}. I am ${age} years old.`  
</script>
```


JavaScript Output

`document.write()`

`window.alert()`

`console.log()`

`innerHTML`

alert, prompt and confirm

```
<script>  
  alert("Hello World");  
  let name = prompt("Enter your Name:");  
  alert(` Hello ${name} `);  
  let result = confirm("Can we proceed to next step?")  
  alert(result);  
</script>
```

Printing using backtick

```
let n=2;  
let s = `Price of an apple is ${n}`;  
document.write(s)
```

.....

Also called template literals....try multiline

Math Operators

Addition + (also concatenates string)

Subtraction -

Multiplication *

Division /

Remainder %

Exponentiation **

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