

Web Cartography

JavaScript Intro





Goals

Learn the basics of **JavaScript**.



JavaScript

Created to “*make webpages alive*”

Weakly typed

Object-based

Executes both in **browser**/on server



Why

User interactions

Web page interactions

Over-the-network communication

Maps

</> How

```
<head>
```

```
<script src="js/main.js"></script>
```

```
<script src="https://x.yz/js/main.js"></script>
```

```
</head>
```

</> Hello, world!

```
<head>
```

```
  <script>
```

```
    "use strict";
```

```
    alert("Hello, world!");
```

```
  </script>
```

```
</head>
```



Variables

```
let name = "John";
```

```
let surname = "Galt";
```

```
let age = 28;
```

```
let hobbies = ["music", "theatre"];
```

```
let married = false;
```

```
const GENDER = "male";
```



Data types

Numbers

```
let msg = 5; msg = 'hello';
```

Strings

```
let note = `${msg} world`;
```

Booleans

```
let bigger = 1 < 10;
```

Objects

```
let name = null;
```

Symbols

null

```
typeof msg === "string";
```

undefined

Operators

*	<code>let votes = 15 * 18;</code>
/	<code>let even = votes % 2 === 0;</code>
-	<code>let hello = "hello";</code>
+	<code>let world = "world";</code>
%	<code>let msg = hello + " beautiful " + world;</code>

</> Cond. operators

```
if      let year = 2017;  
?      let birthYear = 1989;  
      if (year - birthYear >= 18) {  
        console.log("You're over 18");  
      } else {  
        console.log("Poor kid");  
      }
```

Loops

for

```
const LETTERS = ['A', 'B', 'C', 'D'];
```

while

```
for (let i = 0; i < LETTERS.length; i += 1) {
```

```
  console.log(i, ':', LETTERS[i]);
```

```
}
```

```
let i = 0;
```

```
while (i < LETTERS.length) {
```

```
  console.log(i, ':', LETTERS[i]);
```

```
  i += 1;
```

```
}
```

Switch

```
const x = parseInt(Math.random() * 10);
switch(x) {
  case x < 5:
    console.log("What a small number!");
    break;
  case x >= 5 and x <= 9:
    console.log("Not bad.");
    break;
  default:
    console.log("Bingo!");
}
```

</> Functions

DRY

```
function welcome() {  
    alert("Hello world!");  
}
```

```
welcome();
```

Functions

DRY

```
function welcome(name) {  
    alert(`Hello ${name}!`);  
}
```

```
welcome("Jane");
```

```
welcome("John");
```

</> Functions

```
function isEven(x) {  
    return x % 2 === 0;  
}
```

```
isEven(5);  
isEven(50);
```

```
function add(x, y) {  
    return x + y;  
}  
add(5, 10);
```



Tips

Do not use **diacritics**, **spaces** or **capital letters** in filenames and file paths.

Use **English**.

Indent your code.

Use **syntax highlighting**.



Tasks

Create a HTML `<form>` that can be used to scale given area/length.

No JavaScript required (yet).

Make sure only positive values can be inserted.



Tips

JavaScript Intro at <https://javascript.info>



Feel free to ask

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