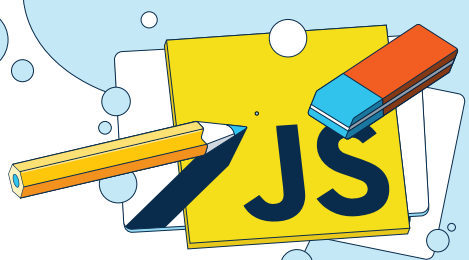
TOWER



JAVASCRIPT CHEAT SHEET

presented by Tower - the best Git client for Mac and Windows

1. Variables

var

Declares a variable globally or locally within a function.

let

Declares a block-scoped variable.

const

Declares a block-scoped constant (read-only) variable.

2. Loops

For Loop

This loop will execute 5 times:

```
for (let i = 0; i < 5; i++) {
    console.log(i);
}
```

While Loop

This loop will execute 5 times:

```
let i = 0;
while (i < 5) {
    console.log(i);
    i++;
}
```

3. Conditional Statements

If statement

```
if (age >= 18) {
  console.log("You are eligible to vote!");
} else {
  console.log("You are not eligible to vote yet.");
}
```

Switch statement

```
let age = 20;

switch (true) {
  case age >= 18:
    console.log("You are eligible to vote!");
    break;
  default:
    console.log("You are not eligible to vote yet.");
    break;
}
```

4. String methods

length

Returns the length of a string.

toUpperCase()

Converts a string to uppercase.

toLowerCase()

Converts a string to lowercase.

charAt(index)

Returns the character at a specified index.

includes("Hello")

Checks if a string contains a specific sub-string (in this example, “Hello”).

split(",")

Splits a string into an array of substrings based on a separator (in this example, a comma).

trim()

Removes whitespace from both ends of a string.

concat(string1, string2)

Joins two or more strings.

5. Array methods

length

Returns the number of elements in an array.

push("Joe")

Adds one or more elements to the end of an array.

pop()

Removes the last element from an array.

shift()

Removes the first element from an array.

unshift()

Adds one or more elements to the beginning of an array.

indexOf()

Returns the first index at which a specified element is found.

forEach()

Executes a provided function once for each array element. Example:

```
numbers.forEach((number) => {
  console.log(number);
});
```

map()

Creates a new array by performing a function on each array element. Example:

```
const doubledNumbers = numbers.
map((number) => {
  return number * 2;
});
```

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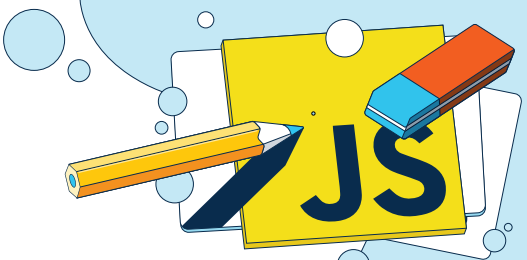

filter()

Creates a new array with all elements that pass a test provided by a function. Example:

```
const evenNumbers = numbers.
filter((number) => {
  return number % 2 === 0;
});
```

reduce()

Applies a function against an accumulator and each element in the array (from left to right) to reduce it to a single value. Example:

```
const sum = numbers.reduce((accu-
mulator, number) =>
  return accumulator + number;
}, 0);
```

find()

Returns the first element in the array that satisfies a provided testing function.

```
const foundNumber = numbers.
find((number) => {
  return number > 3;
});
```

6. Async/await to fetch JSON data from an API

```
async function fetchData() {
  try {
    const response = await
    fetch('https://api.example.com/
    data');
    if (!response.ok) {
      throw new Error('Request failed
      with status: ' + response.status);
    }
    const data = await response.json();
    console.log(data);
  } catch (error) {
    console.error('Error:', error.message);
  }
}
fetchData();
```

7. Math

Math.random()

Returns a random number between 0 and 1.

Math.round(x)

Rounds a number to the nearest integer.

Math.floor(x)

Rounds a number down to the nearest integer.

Math.ceil(x)

Rounds a number up to the nearest integer.

Math.max(1, 3, 2)

Returns the largest of zero or more numbers.

Math.min(1, 3, 2)

Returns the smallest of zero or more numbers.

8. Events

```
button.addEventListener('click', function() {
  console.log("Button clicked!");
});
```

Mouse Events

click

Occurs when the mouse is clicked on an element.

mouseover

Occurs when the mouse pointer enters an element.

mouseout

Occurs when the mouse pointer leaves an element.

mousemove

Occurs when the mouse pointer moves over an element.

Keyboard Events

keydown

Occurs when a key is pressed down.

keyup

Occurs when a key is released.

keypress

Occurs when a key is pressed down and released.

Form Events

submit

Occurs when a form is submitted.

input

Occurs when the value of an input field changes.

change

Occurs when the value of a form element changes.

Window Events

load

Occurs when the page finishes loading.

resize

Occurs when the browser window is resized.

scroll

Occurs when the user scrolls the page.