

# 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 substring (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()

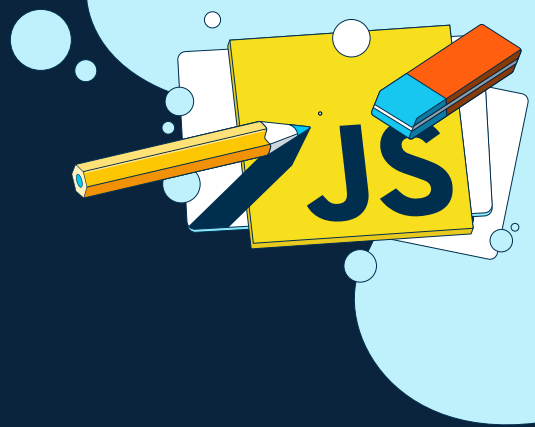
Executes a provided function once for each array element. Example:

```
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;  
  });
```



### 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.