

Quick Tips

JavaScript shorthand coding tips and tricks

The logo consists of a solid yellow square with the letters 'JS' in a bold, black, sans-serif font centered within it.

JS

Repeat a string multiple times

```
//Longhand
let str = '';
for(let i = 0; i < 5; i ++) {
    str += 'Hello ';
}
console.log(str); // Hello Hello Hello Hello Hello

// Shorthand
const str = 'Hello '.repeat(5);
```

Find number of parameters accepted by a function

```
function func(param1, param2, param3) {  
  // code  
}  
console.log(func.length); // 3  
  
// function with Rest parameter  
function func(param1, param2, ...params) {  
  // code  
}  
console.log(func.length); // 2
```

Merging of arrays

```
const arr1 = [20, 30];
```

```
const arr2 = arr1.concat([60, 80]); // [20, 30, 60, 80]  
// OR
```

```
const arr2 = [...arr1, 60, 80]; // [20, 30, 60, 80]
```

Find max and min number in an array

```
const arr = [2, 8, 15, 4];  
Math.max(...arr); // 15  
Math.min(...arr); // 2
```

Exponent Power

```
//Longhand  
const power = Math.pow(4, 3); // 64  
  
// Shorthand  
const power = 4**3; // 64
```

Remove duplicates from Array

```
const arr = [10, 5, 20, 10, 6, 5, 8, 5, 20];  
const uniqueArr = [...new Set(arr)]  
console.log(uniqueArr); // [10, 5, 20, 6, 8]
```

Convert string to number

```
const quantity = +'53'; // 53  
const price = +'92.65'; // 92.65  
const id = +'42AE'; // NaN
```


Remove falsey values from Array

```
const arr = [12, null, 0, 'xyz', -25, NaN, '', undefined, false];  
  
const filterArray = arr.filter(Boolean);  
// filterArray = [12, "xyz", -25, 0.5]
```

Assigning values to multiple variables

//Longhand

```
let a, b, c;
```

```
a = 5;
```

```
b = 8;
```

```
c = 12;
```

//Shorthand

```
let [a, b, c] = [5, 8, 12];
```

Swap two variables

```
let x = 'Hello', y = 55;
```

```
//Longhand
```

```
const temp = x;
```

```
x = y;
```

```
y = temp;
```

```
//Shorthand
```

```
[x, y] = [y, x];
```

Object Property Assignment

If the variable name and object key name are same, then we can just mention the variable in object literal.

```
const product = 'Laptop';  
const price = 40000;  
  
//Longhand  
const obj = { product: product, price: price };  
  
//Shorthand  
const obj = { product, price };
```

Assigning object property value to variable

```
const obj = {  
  product: 'mobile',  
  color: 'black',  
  price: 25000  
};  
  
// Longhand  
const product = obj.product;  
const color = obj.color;  
  
// Shorthand  
const { product, price } = obj;
```

Multiple condition checking

```
//Longhand
if (
  value === 1 ||
  value === "one" ||
  value === 2 ||
  value === "two"
) {
  // Execute some code
}

// Shorthand 2
if ([1, 'one', 2, 'two'].includes(value)) {
  // Execute some code
}
```

Check if a key exists in an object

```
const product = {  
  name: 'Mobile',  
  price: 40000  
}  
  
// method: 1  
console.log('name' in product); // true  
console.log('detail' in product); // false  
  
// method: 2  
console.log(Reflect.has(product, 'name')); // true  
console.log(Reflect.has(product, 'detail')); // false
```


Double bitwise NOT operator (~~)

```
//Longhand  
const floor = Math.floor(6.8); // 6  
  
// Shorthand  
const floor = ~~6.8; // 6
```

Note: This approach only works for 32 bit integers, i.e $(2^{31})-1 = 2147483647$. So for any number higher than that, use `Math.floor()`.

AND(&&) Short circuit evaluation

```
//Longhand
if (isLoggedIn) {
    goToHomepage();
}

//Shorthand
isLoggedIn && goToHomepage();
```

This is widely used in React.Js to conditionally render any element.

```
<div> { this.state.isLoading && <Loading /> } </div>
```

Removing multiple properties from an object

```
const obj = { x: 45, y: 72, z: 68, p: 98 };
```

```
// Longhand
```

```
delete obj.x;
```

```
delete obj.p;
```

```
console.log(obj); // { y: 72, z: 68 }
```

```
// Shorthand
```

```
const { x, p, ...newObj } = obj;
```

```
console.log(newObj); // { y: 72, z: 68 }
```

Assigning default value to function parameter

```
function getAreaOfCircle(radius, pie = 3.14) {  
    return pie * radius * radius;  
}  
  
getAreaOfCircle(5); // pie will be 3.14  
getAreaOfCircle(5, 3.14159); // pie will be 3.14159
```

Assigning default value

The OR(||) short circuit operator evaluates an expression from left to right until it finds a truthy value else it returns the last operand value.

```
// Longhand
let data = [];
if (usersList !== null && usersList !== undefined) {
    data = usersList;
}

// Shorthand
const data = usersList || [];
```

The “for” loop alternatives

```
// for of loop
for (const val of arr) {
  console.log('value:' + val);
}

// for in loop
for (const index in arr) {
  console.log('value:' + arr[index]);
}

// forEach method
arr.forEach((val, index) => {
  console.log('value:' + val);
})
```

Convert string to array

```
// way 1
const str = 'x,y,z';
console.log(str.split(',')); // ['x', 'y', 'z']

// way 2
const str = 'html';
console.log([...str]); // ['h', 't', 'm', 'l']

// way 3
const str = 'html';
console.log(Array.from(str)); // ['h', 't', 'm', 'l']

// way 4
const str = 'html';
console.log(Object.assign([], str));
// ['h', 't', 'm', 'l']
```