Quick Tips

JavaScript shorthand coding tips and tricks

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']
```