

# Arrays in JavaScript

```
const fruits = ['🍏', '🍌', '🍇', '🍑', '🍓', '🍏'];

// converts the array to a string
fruits.toString(); // 🍏,🍌,🍇,🍑,🍓,🍏

// adds element at the end of the array
fruits.push('🥥'); // ['🍏', '🍌', '🍇', '🍑', '🍓', '🍏', '🥥']

// removes the last element of the array
fruits.pop(); // '🥥'

// checks if the array contains an element
fruits.includes('🍌'); // true

// returns the index of the element
fruits.indexOf('🍏'); // 3

// join the elements of the array with the given separator
fruits.join('+'); // 🍏+🍌+🍇+🍑+🍓+🍏

// return a portion of the array
fruits.slice(1, 3); // ['🍌', '🍇']

// add elements to the array
fruits.splice(1, 0, '🥑'); // ['🍏', '🥑', '🍌', '🍇', '🍑', '🍓', '🍏']
```



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# Objects in JavaScript

```
index.js

const person = {
  name: 'John',
  age: 30,
  gender: 'male',
};

const jobObject = {
  job: 'developer',
  salary: 1000,
};

// get all object keys
Object.keys(person); // ['name', 'age', 'gender']
// get all object values
Object.values(person); // ['John', 30, 'male']
// get all object entries
Object.entries(person); // [ [ 'name', 'John' ], [ 'age', 30 ], [ 'gender', 'male' ] ]

// assign object to another object
Object.assign(person, jobObject);
// { name: 'John', age: 30, gender: 'male', job: 'developer', salary: 1000 }
```





# Scope in JavaScript



```
/* global scope */
const PIE = 3.14;

function foo() {
  console.log(PIE); // 3.14

  /* function scope */
  const age = 32;
  console.log(age); // 32
}

/* block scope */
if (true) {
  const fullName = 'John Doe';
  console.log(fullName); // John Doe
}

console.log(PIE); // 3.14
console.log(age); // ReferenceError: age is not defined
console.log(fullName); // ReferenceError: fullName is not defined
```





# Date in JavaScript



index.js

```
const date = new Date(); // 2023-01-22T09:44:48.175Z
date.getDate(); // month's date: 22
date.getMonth(); // Month with 0 index: 0
date.getFullYear(); // Year: 2023
date.getHours(); // Hours: 9
date.getMinutes(); // Minutes: 44
date.getSeconds(); // Seconds: 48
date.getMilliseconds(); // Millisecond: 175
date.getTime(); // Time: 1648101488175
date.setDate(23); // Set date: 23
date.setMonth(3); // Set month: 3
date.setFullYear(2024); // Set year: 2024
date.setHours(10); // Set hours: 10
date.setMinutes(45); // Set minutes: 45
date.setSeconds(49); // Set seconds: 49
date.setMilliseconds(176); // Set Milliseconds: 176
date.setTime(1648101488176); // Set time: 1648101488176
```

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# Events in JavaScript

```
index.html

<!-- when use clicks -->
<input type="text" onclick="" />
<!-- when user double clicks -->
<input type="text" ondblclick="">
<!-- when user moves the mouse over an element, it's called mouse down-->
<input type="text" onmousedown="">
<!-- when an element loses focus -->
<input type="text" onblur="">
<!-- when an element gets focus -->
<input type="text" onfocus="">
<!-- when a user moves the mouse over an element -->
<input type="text" onmouseover="">
<!-- when a user moves the mouse out of an element -->
<input type="text" onmouseout="">
<!-- when there is a change -->
<input type="text" onchange="">
<!-- when a user presses a key -->
<input type="text" onkeydown="">
<!-- when a user releases a key -->
<input type="text" onkeyup="">
<!-- when a user presses a key -->
<input type="text" onkeypress="">
<!-- when a user submits a form -->
<form onsubmit=""></form>
<!-- when a user resets a form -->
<form onreset=""></form>
<!-- when a user selects a text -->
<input type="text" onselect="">
```



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# Async/Await JavaScript

```
// Used async to make the function act asynchronous
async function getWeatherData() {
  try {

    // Used await to make the code wait until promise returns a result
    const res = await fetch('https://jsonplaceholder.typicode.com/posts')
    const data = await res.json()

    return data
  } catch (err) {
    console.log(err)
  }
}
```



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# Error handling in JS

```
index.js

/* error handling in JavaScript */
function foo() {
  // try catch block
  try {
    // ...
  } catch (e) {
    // catch error
    // ...
  }
}

// executes when when a JavaScript Promise that
// has no rejection handler is rejected
window.addEventListener('unhandledrejection', function () {});
```



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