ECMAScript 2021

Key	Value
Name	ECMAScript 2021
Short name	ES2021
Was finalized in	June 2021

Feature list

#	Name	Desc
1	Logical Assignment Operators	??= , ||= , &&=
2	Numeric separator	1_500_000
3	String.prototype.replaceAll()	replace all matches with new value
4	Promise.any	resolve the value of **the first fulfilled promise**
5	WeakRefs and Finalizers	read more

1. Logical Assignment Operators

#	Name	Desc
1	Logical OR assignment ||=	x ||= y means only assigns x = y if x is **falsy**.
2	Logical AND assignment &&=	x &&= y means only assigns x = y if x is **truthy**.
3	Logical Nullish assignment ??=	x??= y means only assigns x = y if x is **nullish**

```
//"Or Or Equals"
x ||= y;
x || (x = y);

// "And And Equals"
x &&= y;
x && (x = y);

// "QQ Equals"
x ??= y;
x ?? (x = y);
```

Logical OR assignment examples

```javascript
const a = { duration: 50, title: '' };

a.duration ||= 10;
console.log(a.duration);
// expected output: 50

a.title ||= 'title is empty.';
console.log(a.title);
// expected output: "title is empty"
```

> Tham khảo: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Logical_OR_assignment

Logical AND assignment examples

```javascript
let a = 1;
let b = 0;

a &&= 2;
console.log(a);
// expected output: 2

b &&= 2;
console.log(b);
// expected output: 0
```

> Tham khảo: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Logical_AND_assignment

Logical Nullish assignment examples

```javascript
const a = { duration: 50 };

a.duration ??= 10;
console.log(a.duration);
// expected output: 50

a.speed ??= 25;
console.log(a.speed);
// expected output: 25
```

> Tham khảo: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Nullish_coalescing_operator

2. Numeric separator

```javascript
// before
const count = 1000000;

// ES2021 – more readable
const count = 1_000_000;

// don't overuse it =)))
1_00; // 100
10_0; // 100
1_5_0; // 150;
```

3. String.prototype.replaceAll()

```javascript
// Before: need to use regex with global flag
const queryString = 'q=query+string+parameters';
const withSpaces = queryString.replace(/\+/g, ' ');
// 'q=query string parameters'

// ES2021
const queryString = 'q=query+string+parameters';
// const withSpaces = queryString.split('+').join(' ');
queryString.replaceAll('+', ' ');
// 'q=query string parameters'
```

Comparison between String.prototype.replace() and String.prototype.replaceAll()

searchValue is	replace()	replaceAll()
a string	replace first match	replace all matches
a non-global regex	replace first match	throw error
a global regex	same	same

Tham khảo: https://github.com/tc39/proposal-string-replaceall

4. Promise.any

```javascript
Promise.any([
  fetch('https://v8.dev/').then(() => 'home'),
  fetch('https://v8.dev/blog').then(() => 'blog'),
  fetch('https://v8.dev/docs').then(() => 'docs')
]).then((first) => {
  // Any of the promises was fulfilled.
  console.log(first);
  // → 'home'
}).catch((error) => {
  // All of the promises were rejected.
  console.log(error);
});
```

- **Promise.race** = wait for the first item either fulfilled or rejected.
- **Promise.any** = wait for the first fulfilled item

Tham khảo

- https://h3manth.com/ES2021/
- https://blog.logrocket.com/new-es2021-features-you-may-have-missed/
- https://dev.to/alarid/new-es2021-javascript-features-now-available-48m9

Khoá học Javascript cho người mới bắt đầu 2021🎉

- Tác giả: **Hậu Nguyễn** - Founder Easy Frontend
- Khoá học chỉ được published trên Udemy, không thông qua trung gian.
- Khoá học không bán dạng videos upload trên Google Drive hay bất cứ hình thức nào tương tự.
- Khoá học có nhóm discord để hỗ trợ trong quá trình học tập.

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