

## How to Use Comments in JavaScript 📌

Comments are **ignored by the browser** and are only for **human readability**. They help:

- ✓ Explain what the code does
  - ✓ Debug by "commenting out" code
  - ✓ Make the code easier to understand for others
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### 1▢ Single-Line Comments (//)

Use `//` to comment out **a single line**.

*Example:*

```
// This is a single-line comment
var animals = []; // Declare an empty array

// Loop through an array
for (var i = 0; i < animals.length; i++) {
  if (animals[i] === "bat") {
    animals[i] = "cat"; // Replacing "bat" with "cat"
  }
}
```

💡 **Anything after `//` on that line is ignored by the browser.**

✓ **Best Practice:** Leave a space after `//` for readability.

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### 2▢ Multi-Line Comments (/\* ... \*/)

Use `/* ... */` for **longer comments** that span multiple lines.

*Example:*

```
/*
This loop checks each element in the array.
If an element is "bat", it is changed to "cat".
*/
for (var i = 0; i < animals.length; i++) {
  if (animals[i] === "bat") {
    animals[i] = "cat";
  }
}
```

💡 **Everything between `/*` and `*/` is ignored by the browser.**

💡 **Same format as CSS comments.**

✓ **Best Practice:** Use multi-line comments for explaining complex logic.

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### 3▢ Commenting Out Code for Debugging

If you're testing or debugging, you can **disable a part of your code** using comments.

*Example:*

```
var x = 10;
var y = 20;
```

// console.log(x + y); // Temporarily commented out

✓ **This helps you check issues without deleting code.**

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#### 4☐ **When to Use Comments?**

- ✓ **For complex logic** (explain why, not how).
  - ✓ **For functions and loops** (briefly state their purpose).
  - ✓ **For code that might be changed later** (note why it's written that way).
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#### 🔗 **Summary**

Type	Syntax	Use Case
<b>Single-Line</b>	// This is a comment	Short comments or notes on a line
<b>Multi-Line</b>	/* This is a multi-line comment */	Explaining blocks of code
<b>Commenting Out Code</b>	// console.log("test");	Debugging or disabling code