js for loops explained

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In JavaScript, there are several ways to write a `for` loop. The most common ways are:

1. The `for` loop with three expressions:

```css
cssCopy code
for (let i = 0; i < 10; i++) {
  // code to be executed
}
```

In this type of `for` loop, the first expression initializes the loop variable, the second expression specifies the condition for continuing the loop, and the third expression updates the loop variable after each iteration.

1. The `for...in` loop:

```typescript
typescriptCopy code
const object = {a: 1, b: 2, c: 3};

for (const property in object) {
  console.log(`${property}: ${object[property]}`);
}
```

In this type of `for` loop, you iterate over the properties of an object. The loop variable (`property` in this case) is assigned the name of each property of the object.

1. The `for...of` loop:

```c
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const array = ['a', 'b', 'c'];
```

```
for (const element of array) {
  console.log(element);
}
```

In this type of `for` loop, you iterate over the elements of an iterable object (such as an array). The loop variable (`element` in this case) is assigned the value of each element of the iterable.

The main difference between these types of `for` loops is what they iterate over. The `for` loop with three expressions iterates over a range of numbers, the `for...in` loop iterates over the properties of an object, and the `for...of` loop iterates over the elements of an iterable object. Each type of loop is useful in different situations, depending on what you need to iterate over.