

Understanding JavaScript Syntax

Comments

In JavaScript, you can use single-line comments starting with `//` or multi-line comments enclosed between `/*` and `*/`.

Example:

```
// This is a single-line comment
/*
    This is a multi-line comment
    It can span across multiple lines
*/
```

Statements

JavaScript code is composed of statements, which are instructions that the browser can execute.

Example:

```
let x = 5; // This is a statement assigning a value to a
           variable
console.log(x); // This is a statement invoking the
               console.log() function
```

Expressions

Expressions are combinations of values, variables, and operators that evaluate to a single value.

Example:

```
let y = 2 * (3 + 4); // This is an expression evaluating
                    to 14
```

Case Sensitivity

JavaScript is case-sensitive, meaning uppercase and lowercase letters are treated as different.

Semicolons

In JavaScript, semicolons (;) are used to terminate statements. While they are often optional, it's considered good practice to include them.

Whitespace

JavaScript ignores spaces, tabs, and newline characters, except to separate tokens.

Indentation

Although not required, proper indentation improves code readability and maintainability.

Conclusion

Understanding JavaScript syntax is crucial for writing clean, efficient, and maintainable code. It forms the foundation for learning and mastering the language.