javascript

Copy code

// For loop

for (let i = 0; i < 5; i++) {

console.log("Iteration " + i);

}

// While loop

let count = 0;

while (count < 3) {

console.log("Count: " + count);

count++;

}

// Do-while loop

let num = 5;

do {

console.log(num);

num--;

} while (num > 0);

**Functions and Scope**

Functions are blocks of reusable code.

JavaScript has function scope and block scope (with let and const).

Why Functions?

With functions you can reuse code

You can write code that can be used many times.

You can use the same code with different arguments, to produce different results.

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function greet(name) {

console.log("Hello, " + name + "!");

}

greet("Alice");

// Block scope

if (true) {

let blockVar = "I'm inside a block";

}

console.log(blockVar); // Error: blockVar is not defined

Arrays and Objects

Arrays and objects are fundamental data structures in JavaScript.

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// Arrays

let colors = ["red", "green", "blue"];

console.log(colors[0]); // Accessing array elements

// Objects

let person = {

firstName: "John",

lastName: "Doe",

age: 30

};

console.log(person.firstName); // Accessing object properties

Error Handling (try/catch)

JavaScript allows you to handle exceptions using try/catch blocks:

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try {

// Code that might throw an error

let result = 10 / 0;

console.log(result);

} catch (error) {

console.error("An error occurred: " + error.message);

}

These are the core concepts of JavaScript in web development, and they form the foundation for building dynamic and interactive web applications.

https://refat.notion.site/refat/var-vs-let-vs-const-d84c5e7a8e284fb6a9e4917b708de20f