



Introduction to JavaScript

- What is JavaScript?
- Setting up a development environment.
- Your first JavaScript program.



Variables and Data Types

• Variables and data types. Variable declaration (var, let, const). Type coercion and type conversion.





Operators and Expressions

• Arithmetic, comparison, and logical operators. Expressions and evaluation. String concatenation and template literals.





Control Flow

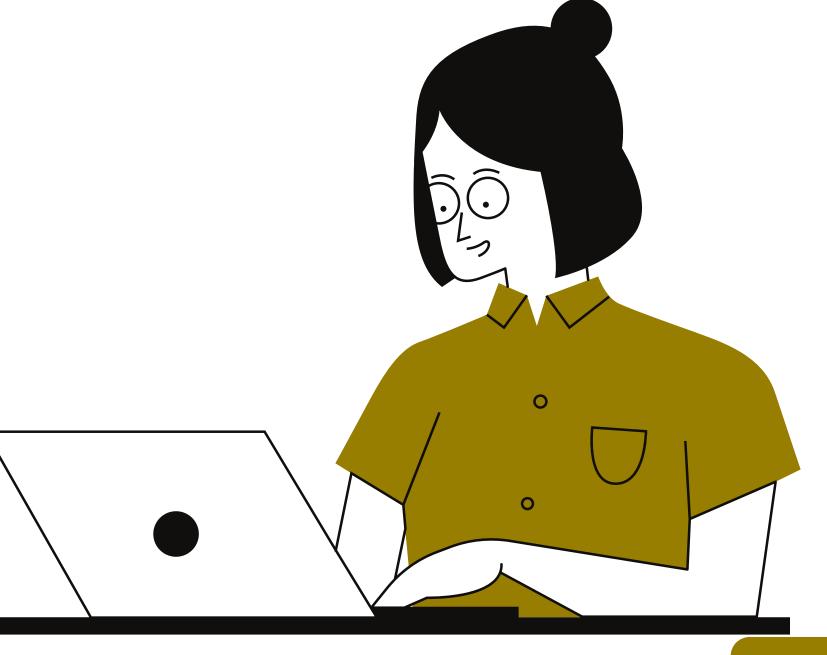
• Conditional statements (if, else if, else). Switch statements. Loops (for, whi





Functions

• Declaring and calling functions. Function parameters and return values. Arrow functions.





Scope and Closures

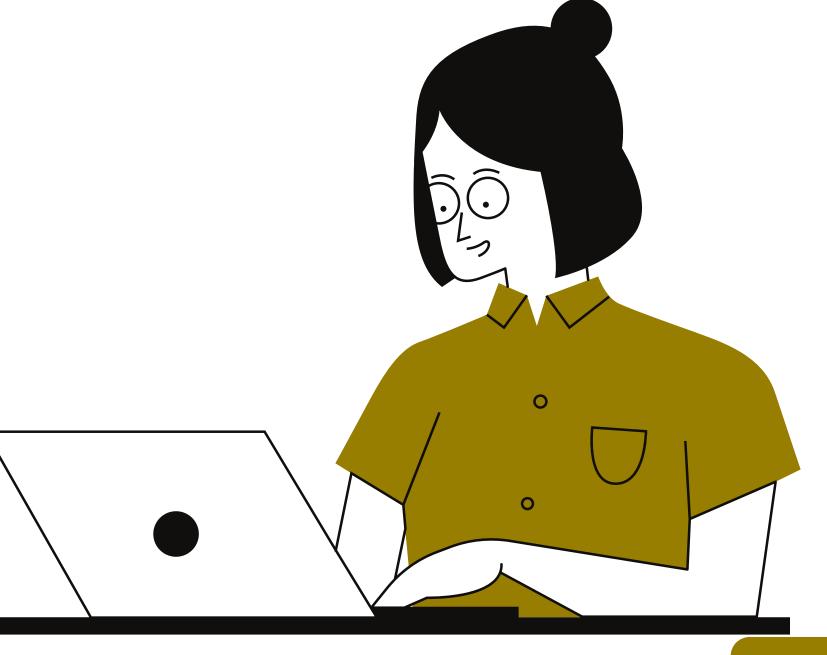
• Variable scope (local and global). Lexical scope and closures. Practical applications of closures.





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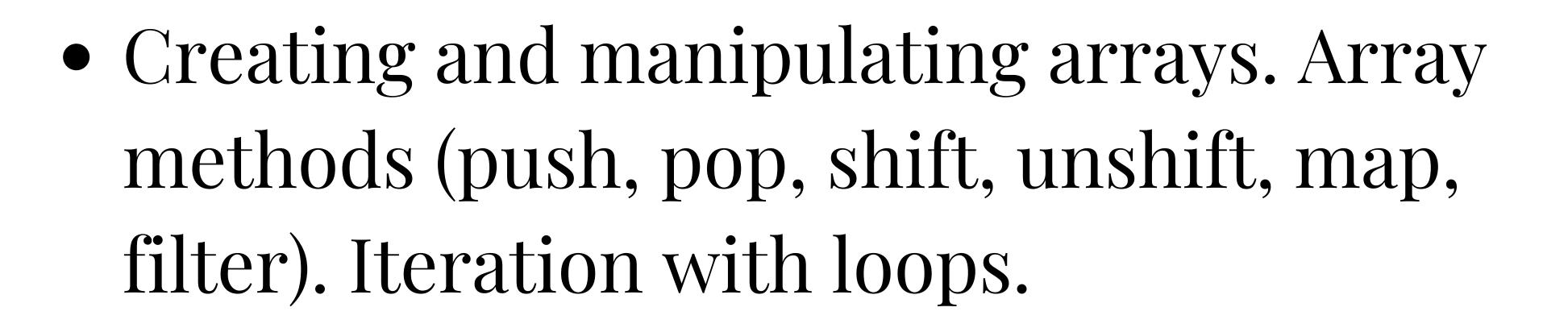




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Objects and ISON

• Creating and working with objects. Object properties and methods. Working with JSON data.

Arrays





Error Handling

• Handling exceptions with try and catch. Throwing custom errors. Error objects.



Asynchronous JavaScript

• Introduction to asynchronous programming. Callback functions. Promises for handling asynchronous

tasks.





Introduction to the DOM

• Understanding the Document Object Model (DOM). Selecting and manipulating DOM

elements.





Event Handling

etc.).

• Adding event listeners. Event object and event propagation. Handling common events (click, keypress,





Modifying the DOM

• Changing element attributes and content. Creating and removing elements. Working with forms.







Form Handling and Validation

• Handling form submissions. Form validation using JavaScript. Form

elements and data processing.





Local Storage and Cookies

• Making HTTP requests with the Fetch API. Handling data from API responses. Introduction to RESTful API concepts.



ES6+ Features

• Arrow functions and template literals. Destructuring and spread/rest operators. Classes and modules.





ES6+ Features

Arrow functions and template literals.
Destructuring and spread/rest operators.
Classes and modules.





Advanced Topics

 Introduction to Node.js and npm.
Exploring front-end libraries and fromously Build tools like Webpee

frameworks. Build tools like Webpack.







Project Development

 Apply your knowledge by working on a JavaScript project. Troubleshooting, debugging, and project presentation.









Additional Topics and Advanced Projects

• Cover more advanced JavaScript topics such as closures, promises, async/await, and advanced API usage. Work on advanced projects that apply your JavaScript skills to real-world scenarios.







