

Professional JavaScript Developer Checklist (2026)

Student Name: _____ Instructor Name: _____

(Industry / Software House Standard)

1 JS Fundamentals

- [] What is JavaScript & how it works with HTML/CSS
 - [] Adding JS via <script> (inline, internal, external)
 - [] Console methods (console.log, console.error, etc.)
 - [] Variables: var, let, const
 - [] Data types: string, number, boolean, undefined, null, symbol, object
 - [] Type conversion (implicit/explicit)
 - [] Operators: arithmetic, comparison, logical, assignment, ternary
 - [] Template literals (`\${}`)
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2 Control Structures

- [] if / else / else if
 - [] switch statements
 - [] for loop, while loop, do-while loop
 - [] for...of, for...in
 - [] break & continue statements
 - [] try/catch/finally
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3 Functions & Scope

- [] Function declarations & expressions
- [] Arrow functions
- [] Parameters & default parameters
- [] Rest parameters ...args
- [] Return statements
- [] Function scope & block scope
- [] Hoisting
- [] Closures (functions remembering outer variables)

4 Objects & Arrays

- [] Object literals & properties
 - [] Accessing properties (dot vs bracket)
 - [] Object methods & `this` keyword
 - [] Array creation & indexing
 - [] Array methods: `push`, `pop`, `shift`, `unshift`
 - [] Iteration: `forEach`, `map`, `filter`, `reduce`, `find`, `some`, `every`
 - [] Destructuring objects & arrays
 - [] Spread & rest operators
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5 DOM Manipulation

- [] Selecting elements (`getElementById`, `querySelector`, etc.)
 - [] Changing content (`innerHTML`, `textContent`)
 - [] Changing styles (`style.property`)
 - [] Adding/removing classes (`classList.add/remove/toggle`)
 - [] Creating & appending elements (`createElement`, `appendChild`)
 - [] Event handling (`addEventListener`)
 - [] Event delegation & bubbling
 - [] Preventing default behavior (`event.preventDefault`)
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6 Browser & BOM

- [] `window` object
 - [] `document` object
 - [] Alert, confirm, prompt
 - [] Timers: `setTimeout`, `setInterval`
 - [] Clearing timers: `clearTimeout`, `clearInterval`
 - [] Location, history, navigator objects
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7 ES6+ Features

- [] `let` & `const`
- [] Arrow functions
- [] Template literals

- [] Destructuring
 - [] Spread & Rest operators
 - [] Default parameters
 - [] Modules (export / import)
 - [] Classes & constructor functions
 - [] Inheritance with `extends` and `super`
 - [] `Symbol` & `Map` & `Set`
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8 Async JavaScript

- [] Callbacks
 - [] Promises (`.then()`, `.catch()`)
 - [] Async / Await
 - [] Fetch API
 - [] Handling errors with try/catch
 - [] Event loop & call stack basics
 - [] Microtasks & macrotasks
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9 JSON & Storage

- [] `JSON.parse` & `JSON.stringify`
 - [] `LocalStorage` (`setItem`, `getItem`, `removeItem`)
 - [] `SessionStorage`
 - [] Cookies basics
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10 Advanced Concepts

- [] Scope chain & lexical scope
 - [] Prototype & prototype chain
 - [] `this` keyword in different contexts
 - [] `call`, `apply`, `bind`
 - [] IIFE (Immediately Invoked Function Expression)
 - [] Memory leaks awareness
 - [] Modules & modular code
 - [] Error handling & debugging
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11 JS Best Practices

- [] Avoid global variables
 - [] DRY principle (Don't Repeat Yourself)
 - [] Use strict mode ('use strict')
 - [] Commenting and clean code
 - [] Naming conventions
 - [] Performance awareness (avoid heavy DOM operations)
 - [] Event delegation instead of multiple listeners
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12 Project Completion Check

Students must complete at least 2:

- [] Interactive To-Do List App (DOM + Events)
 - [] Calculator (Functions + DOM + Event Handling)
 - [] API-based Weather App (Async + Fetch + JSON)
 - [] Dashboard with dynamic tables and charts
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Course Completion Statement

By completing this checklist, the student demonstrates the ability to write modular, clean, and efficient JavaScript code, handle asynchronous operations, manipulate the DOM, and implement modern JS features for real-world projects.

Student Signature: _____ Date: _____