

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

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`)

6 Browser & BOM

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

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:** _____