

Week 2 – Master Conditions, Loops & Functions

Day 1: Conditional Statements (if/else, switch)

Concepts:

- Flow of decision making in programs
- `if`, `if-else`, `if-else-if ladder` with real examples
- `switch` statement – use cases, fall-through, break
- Nested conditions (when & when not to use)
- Edge cases: multiple conditions, type coercion in comparisons

Day 2: Loops (Iteration Basics)

Concepts:

- Why loops are needed
- `for`, `while`, `do-while` – syntax + use cases
- Dry runs: how loop variables change per iteration
- Difference between `while` and `do-while`
- Break & continue

Day 3: Loops Advanced + `for..of` / `for..in`

Concepts:

- Nested loops (loop inside loop → pattern foundation)
- Iterating arrays with `for` & `for-of`

- Iterating objects with `for-in`
- When to use → `for`, `for-of`, `for-in`

Day 4: Functions (Core Foundations)

Concepts:

- Function declaration, parameters, arguments
- `return` vs no return

Day 5 (Friday): THEORY TEST PLAN

Type: Short Answers

Topics: all topics covered in the week

Day 6 (Saturday): CODING EXAM

Format: 10 Coding Questions (Mixed Easy + Medium)