

## HTML Concepts

### Elements

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- <mark>
- <input type="number">
- <input type="search">

### Attributes

- inputmode
- pattern
- disabled
- draggable
- **src** property
- dataset property (using data attributes)

### DOM Structure & Properties

- textContent
- tagName
- classList
- nextElementSibling
- previousElementSibling
- offsetWidth
- activeElement

### DOM Methods

- remove()
- cloneNode()
- insertBefore()
- replaceWith()
- closest()
- contains()
- focus()

### Accessibility & Extras

- Understanding ARIA live regions
- Understanding Markdown
- HTML Drag and Drop API



# **CSS Concepts**

### Layout

- Basic concepts of Flexbox
- flex-direction
- align-items
- Basic concepts of grid layout
- display
- inset
- z-index
- Viewport-percentage lengths

### Styling, Text & Selectors

- font-weight
- text-decoration
- user-select
- setProperty() method
- hsl() function
- HEX to HSL conversion
- :hover pseudo-class
- ::before pseudo-element
- ::after pseudo-element

### Animations & Effects

- Using CSS animations
- animation
- animation-play-state
- Shake animation
- CSS Skeleton Loadings



# JavaScript Concepts (I)

### Language Fundamentals

- JavaScript functions
- Arrow function expressions
- For statement (for)
- Don't repeat yourself (DRY)
- Event bubbling/delegation

### **Objects**

- Object
- Array
- String
- RegExp
- Date.now() method
- JSON.stringify() method
- Working with objects

### Events

- keydown
- Key values for keyboard events
- dblclick
- input
- paste
- mouseenter
- mouseleave
- resize
- scroll
- transitionend
- visibilitychange
- dragstart
- drop



# JavaScript Concepts (II)

### String Methods

- trim()
- replace()
- toLowerCase()
- toLocaleString()
- localeCompare()
- String.fromCharCode()

### Numbers & Math

- Remainder (%) operator
- parseInt() function
- Math.min() method
- Math.floor() method
- ASCII characters

### Async & Timing

- Using promises
- Promise.all() method
- await operator
- clearTimeout() method
- Debounce
- requestAnimationFrame() method

### Array Methods

- push()
- unshift()
- splice()
- slice()
- sort()
- filter()
- find()
- includes()
- some()
- join()
- split()
- Array.from()
- keys()
- How to randomize an array

### DOM & Interaction

- target property
- Clipboard API (getData())
- confirm() method
- location.reload() method

# Identifying Strengths & Weaknesses



Where Do You Stand?

Which HTML, CSS, and JavaScript concepts can you confidently explain and apply?

What's your favorite topic so far, and why?

Do you feel stronger in CSS (design) or JavaScript (logic)?





- 1. Pinpoint areas that still require significant effort
- 2. Plan to practice those areas deliberately
- 3. Repeat until they click



Had an "aha" moment? Share it with the community!



# Improving Your Problem-Solving Skills

The Art of Debugging

What strategies do you employ when code breaks?

- Log extensively (console.log)
- Break down problems into smaller parts
- Check documentation

Think about a challenging bug you recently fixed and the process you followed

### Think Like a Developer:

- Use pseudocode
- Break complex problems into manageable steps
- Visualize steps before writing code
- Pause and return later with fresh eyes if stuck

There's no magic skill — only patience and methodical analysis. Every bug you tackle strengthens your problem-solving muscle.

