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Key Terms

Arrays

In programming, arrays are used to store multiple values in a single variable, making it easier to manage and manipulate data.

- Arrays can hold various data types, including numbers, strings, or objects.
- Elements in an array are accessed using numerical indices starting from 0.
- Arrays have built-in properties and methods for tasks like sorting, filtering, and iterating through elements.
- Dynamic arrays can grow or shrink in size during execution, offering flexibility for storing different amounts of data.

CSS

CSS is a styling language used to control the layout and presentation of web pages. It enhances the visual appeal and user experience.

- CSS can be applied to HTML elements using inline styles, internal stylesheets, or external stylesheets.
- Selectors in CSS target specific elements on a web page for styling.
- Cascading in CSS allows styles to be prioritized and overridden, following a specific order of importance.
- CSS frameworks like Bootstrap provide pre-designed CSS components and layouts for faster web development.

Debugging

Debugging involves identifying and fixing errors in code to ensure proper functionality and appearance of a website.

- Use browser developer tools to inspect elements and identify issues.
- Check for syntax errors or missing/incorrect code.
- Utilize console.log() to output information for troubleshooting.
- Validate code using online tools to catch errors.

DOM

The Document Object Model (DOM) represents the structure of an HTML document as a tree of

objects, allowing dynamic access and manipulation of elements.

- DOM is platform-agnostic and can be accessed and modified using JavaScript.
- It enables developers to interact with and update webpage content in real-time.
- DOM manipulation involves selecting elements, changing attributes, and adding or removing elements.
- The DOM hierarchy includes elements, attributes, and text nodes, creating a structured representation of the HTML document.

Events

Events in web development refer to user interactions triggering specific actions on a webpage, such as clicking a button or hovering over an image.

- Common event types include click, hover, submit, keydown, and scroll.
- Event listeners are used to detect and respond to user actions.
- Events can be either standard (built-in) or custom (user-defined).
- The addEventListener method is commonly used to attach event handlers to elements.

Functions

Functions in styling allow for reusable code blocks to perform specific tasks, improving efficiency and readability in coding.

- Functions can take input values, called arguments, to customize their behavior.
- Output of a function can vary based on the input provided when it is called.
- Functions can be nested within each other to create more complex styles.
- Using functions helps in maintaining a DRY (Don't Repeat Yourself) code approach.

HTML

HTML is a markup language used to create the structure of web pages by using a series of elements and tags.

- HTML stands for HyperText Markup Language.
- HTML elements are enclosed in angled brackets (<>).
- Tags in HTML provide instructions on how content should be displayed.
- Attributes can be added to HTML elements to provide additional information.

Methods

In web development, methods refer to the actions or functions used to manipulate and control elements on a webpage, such as changing styles or behavior.

- Methods are essential for dynamically updating the appearance or behavior of elements.
- Common methods include getElementById(), addEventListener(), and querySelector().
- Methods can be applied to individual elements or groups of elements.
- Understanding how to use methods effectively can enhance user interaction and create dynamic web experiences.

Properties

In the context of styling web elements, properties dictate various design aspects such as color, size, and layout to create visually pleasing websites.

- Properties are paired with values to define how elements should look or behave on a webpage.
- Common properties include font-size, color, margin, padding, and border.
- Properties allow for customization and control over the appearance and functionality of elements on a webpage.
- Understanding properties is essential for effectively styling elements and creating visually appealing web designs.

Selectors

Selectors target specific HTML elements for styling. They can be based on element types, classes, IDs, attributes, and relationships.

- Class selectors use a period followed by the class name.
- ID selectors use a hash symbol followed by the ID name.
- Universal selectors target all elements on a page.
- Descendant selectors select nested elements within a specific parent element.

Values

Values in styling refer to the settings or properties applied to elements, such as color, size, position, and font-family.

- Values can be assigned using specific keywords or numerical measurements.
- Common values include hex color codes (#000000), percentage measurements (50%), and named font families (Arial, Helvetica).
- The use of values allows for customization and control over the appearance of elements on a webpage.
- Understanding how to use values effectively is key to creating visually appealing and functional user interfaces.

Variables

Variables allow you to store and reuse values throughout your code, making it easier to update multiple instances at once.

- They enhance code readability and maintainability by providing a centralized place for value changes.
- Variables can be scoped globally or locally within specific blocks of a program.
- They are particularly useful for defining common colors, font sizes, padding values, and more.
- When using variables, changes to a single value update all instances where that variable is referenced.