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HTML5, the fifth revision of the Hypertext Markup Language, is a core technology markup language used for structuring and presenting content on the World Wide Web.

It brings several new features, enhancements, and improvements over its predecessors.

Here’s an overview of HTML5 and some of its key features:

1. Semantic Elements

- Introduction of semantic elements like <article>, <section>, <header>, <footer>, <nav>, <aside>, and <figure> helps define the structure and meaning of content more clearly.

2. Multimedia Support

- Native support for audio and video elements (`<audio>` and `<video>`), eliminating the need for third-party plugins like Flash.
- `<canvas>` element for drawing graphics and animations directly in the browser.

3. Form Enhancements

- New input types such as `date`, `email`, `url`, and `number` for better user input validation.
- Support for placeholder text, autofocus, and required attributes.
- `<datalist>` element for providing a predefined list of options for input elements.

4. Improved Accessibility

- Introduction of landmark roles and ARIA (Accessible Rich Internet Applications) attributes to enhance web accessibility.
- Semantic elements contribute to better document structure and improved screen reader support.

5. Local Storage

- The `localStorage` and `sessionStorage` APIs provide a way to store data on the client-side, persisting even after the browser is closed.

6. Offline Web Applications

- The Application Cache (AppCache) feature allows web applications to work offline by

caching resources.

7. GeoLocation API

- The Geolocation API enables browsers to provide location information to web applications.

8. Web Workers

- Web Workers allow for parallel execution of scripts, improving performance by handling tasks in the background without affecting the user interface.

9. WebSockets

- WebSockets provide a full-duplex communication channel over a single, long-lived connection, enabling real-time communication between clients and servers.

10. CSS3 Integration

- Integration with CSS3 for styling and layout, allowing more sophisticated and responsive designs.

11. Drag and Drop

- Native support for drag-and-drop functionality, making it easier to implement intuitive user interfaces.

12. New Parsing Rules

- HTML5 introduces a more flexible parsing algorithm that allows browsers to handle markup errors more gracefully.

13. Cross-document Messaging

- The postMessage API enables secure communication between Window objects, even if they are on different domains.

14. Responsive Design

- HTML5 supports responsive design practices, making it easier to create websites that adapt to different screen sizes and devices.

15. Compatibility

- HTML5 is designed to be backward compatible with older browsers, ensuring that content will still be rendered even in browsers that do not support HTML5 features.

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