Accessibility in HTML refers to making web content usable and navigable for all users, including people with disabilities. The goal is to ensure that your website is accessible to users with various impairments, such as visual, auditory, cognitive, or motor disabilities. HTML provides several features and best practices to enhance accessibility.

Here are some key aspects of **accessibility in HTML**:

1. Semantic HTML

Using appropriate HTML tags (e.g., `<header>`, `<nav>`, `<main>`, `<article>`, `<footer>`, etc.) helps screen readers and other assistive technologies understand the structure of your content.

html
Copy code

```
<header>
  <h1>Website Title</h1>
</header>
<nav>
  <ul>
    <li><a href="#home">Home</a></li>
    <li><a href="#about">About</a></li>
  </ul>
</nav>
```

2. Alt Text for Images

The `alt` attribute on `<img>` tags provides descriptive text for images, which is essential for users with visual impairments who rely on screen readers.

html
Copy code

```
<img src="logo.png" alt="Company logo">
```

3. ARIA (Accessible Rich Internet Applications)

ARIA attributes help improve accessibility for dynamic content. For example, `role`, `aria-label`, `aria-labelledby`, and `aria-hidden` provide additional context to screen readers.

html
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```
<button aria-label="Close Menu">X</button>
```

4. Form Labels and Inputs

Properly associating form labels with their inputs ensures that users using assistive technologies can navigate forms effectively.

html
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```
<label for="username">Username</label>
<input type="text" id="username" name="username">
```

5. Keyboard Navigation

Ensure that your website is fully navigable using the keyboard. This means focusing on using HTML elements like `<button>`, `<a>`, and form controls that are natively focusable or making custom components focusable using the `tabindex` attribute.

6. Heading Structure

Using correct heading tags (`<h1>`, `<h2>`, `<h3>`, etc.) helps users understand the page's hierarchy and navigate content using assistive devices.

html
Copy code
```
<h1>Main Title</h1>
<h2>Section Title</h2>
```

7. Color Contrast

Ensure sufficient contrast between text and background colors for readability. This is especially important for users with visual impairments like color blindness. Tools like WCAG (Web Content Accessibility Guidelines) recommend a contrast ratio of at least 4.5:1 for text.

8. Accessible Tables

Tables should be marked up correctly, especially when using for tabular data. Use the `<th>` tag for headers and associate them with their corresponding `<td>` elements using `scope` or `headers`.

html
Copy code
```
<table>
  <tr>
```

```
    <th scope="col">Name</th>
    <th scope="col">Age</th>
  </tr>
  <tr>
    <td>John</td>
    <td>30</td>
  </tr>
</table>
```

9. Video and Audio Content

For multimedia content like videos or audio, include text alternatives such as captions, transcripts, or descriptions to accommodate users with hearing or visual impairments.

html
Copy code

```
<video controls>
  <source src="video.mp4" type="video/mp4">
  <track kind="captions" src="captions_en.vtt" srclang="en"
label="English">
</video>
```

10. Skip Navigation Links

Provide a way for keyboard users to skip repetitive content (like navigation) to access the main content quickly.

html
Copy code

```
<a href="#main-content" class="skip-link">Skip to main content</a>
```

11. Focus Management

Use JavaScript or HTML properties to manage the focus state, ensuring users know where they are on the page. This is particularly important for interactive elements like modals, dropdowns, and forms.

12. Descriptive Links

Ensure that link text is descriptive and makes sense out of context, as many assistive technologies list all links on the page.

html

Copy code

```
<a href="report.pdf">Download the annual report</a>
```

By following these practices and using tools to test for accessibility, you can ensure that your website is inclusive and usable for everyone.

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