

```
<h1> This is an example of a  
<p> web page. </p>  
</div>  
</body>  
</html>
```

Q-7 Discuss the importance of accessibility in web development. Explain ARIA roles and attributes, and provide an example of making a webpage more accessible.

Ans- Importance of Accessibility in Web Development.

1. Inclusivity: - Accessibility ensures that everyone, regardless of their abilities or disabilities can access and interact with web content. It promotes inclusivity and equal access to information and services.
2. Legal Compliance: In many regions, there are legal requirements, such as the Americans with Disabilities Act (ADA) in the United States, that mandate web accessibility. Non-compliance can result in legal issues and penalties.

- 3) Enhances User Experience : Accessibility improvements often lead to better user experiences for all users. Features like clear navigation, well-structured content, and alternative text for images benefit everyone.
- 4) Expanded Audience : By making your website accessible, you can reach a broader audience, potentially increase traffic and user engagement.

ARIA (Accessible Rich Internet Applications) Roles and Attributes.

• ARIA roles and attributes are a set of HTML attributes used to enhance the accessibility of web content, particularly dynamic and interactive elements found in web applications. They provide additional information to assistive technologies (such as screen readers) to improve content understanding and navigation.

For example :-

```
<!DOCTYPE html>
<html>
<head>
<style>
```

```
  .gallery {
    display: flex;
```

• gallery img {

max-width: 100%;
height: auto;
}

```
</style>
<head>
<body>
<div class="gallery" role="list">
<figure role="listitem">

<figcaption>Beautiful Landscape</figcaption>
</figure>
<figure role="listitem">

<figcaption>stunning sunset</figcaption>
</figure>
</div>
```

```
<div class="gallery">
<div role="list">
<div role="listitem">

<div>Beautiful landscape</div>
</div>
```

<div style = "display:flex">

<div>stunning sunset</div>
</div>
</div>
</div>
</body>
</html>

Q-8 What is the purpose of the '`<!DOCTYPE>`' declaration in HTML, and how does it affect the rendering of a webpage in different browsers?

Ans - The '`<!DOCTYPE>`' declaration specifies which version of HTML (or XHTML) a web page is using. It acts as a document-type definition and informs the web browser and validators about the rules and standard to apply when parsing the HTML document.

- Ensures Compatibility : It helps ensure that a webpage is rendered consistently and correctly across different browsers. Browsers use the '`<!DOCTYPE>`' declaration to determine how to interpret and display the HTML content.
- Validates HTML : It allows validation tools and services to check the HTML document for compliance with the specified Standard. This helps in identifying and fixing errors or issues in the markup.

• Triggers Quirks and Standard mode:- The `<!DOCTYPE>` declaration can influence whether a browser renders a page in "quirks mode" or "standards mode." In standard mode, the browser attempts to render the page in accordance with modern web standards while quirks mode may trigger older, non-standard rendering behaviors.

Different '`<!DOCTYPE>`' declarations correspond to different HTML versions, such as HTML5, HTML4.01, XHTML 1.0, etc. The choice of '`<!DOCTYPE>`' declaration can impact how browsers interpret and render the page.