

# MODERN HTML ASSIGNMENT SOLUTION

## Q1. List out the features of HTML5.

**Ans:-** Some of the main features of HTML5 are as follows –

### 1. Semantic Elements:

When constructing an HTML script, the term “semantic” refers to the meaning of the text. Semantics, to put it simply, is the use of HTML tags that accurately reflect the content they contain. For instance, using the <div> tag doesn’t suggest the content it will carry, however using the <p> tag suggests it can be used to hold paragraph information.

### 2. Audio and Video Support:

One of the many HTML 5 features is the support for audio and video. It has reduced the hassle of relying upon third-party services such as Adobe Flash player. To embed Audio and Video into your HTML document, you may use the following two tags, <audio> and <video> tags.

### 3. Canvas Elements:

Canvas Elements is a top-notch feature that has made the tedious task of handling graphics easier for developers. With the help of Canvas elements, you can easily draw graphics using JavaScript. It is optimum for creating simple animations and drawing photo compositions.

### 4. Geolocation API:

The Geolocation API is an HTML feature that is used to access the geographical position of a user, however, it is not accessed unless the user approves of it. If you’re wondering where this feature is useful, these come in handy while creating apps like taxi apps, food order tracking apps, fitness tracking apps, and more.

## **6. Responsive Images:**

Earlier to create responsive images on the web, you have to rely upon several lines of CSS and sometimes JavaScript, however, HTML 5 makes the process handy by including srcset attribute to specify multiple versions of an image at different screen resolutions.

## **7. Web Workers:**

When you are performing several demanding tasks at once, the browser gets sluggish and responds slowly. Because of this, web workers were added to HTML 5 to allow scripts to operate in the background without interfering with the UI thread.

## **8. Drag and Drop API**

Drag and drop is among the most unique features of HTML5 that allow you to grab any element in the DOM and drop it to a different location. To create an element able to drag and drop, set the attribute “**draggable**” on the tag and put its value to true.

## **9. Form enhancements:**

HTML 5 introduces new features for your existing forms on HTML to create a more robust user experience. Some of the key enhancements in the new HTML 5 include new input types such as email, URL, and more, placeholder text, required fields feature, validation, and more.

## **10. Web Sockets**

In the previous versions of HTML, when a client sends a request to the backend server, the server then responds afterward. However, in HTML 5 we can establish a bidirectional live communication between the server and the client (a web browser) to reduce the latency in the responses.

## **11. Micro Data**

Micro Data in simpler words is a further deeper level to provide semantics to your webpage. This feature is used to structure data in HTML documents by embedding your own customized elements. There are five global attributes: itemref, itemid, itemscope, itemprop, and itemtype.

## **12. Cross Document Messaging**

In general, web browsers don't let web pages from different domains influence each other, this is done for several security reasons, however, even if the web pages don't

intend to intrigue the privacy or harm the other web page. There are several scenarios, in which you want to access cross-document communication to make your web page more interactive with less effort.

## Q2. What are HTML Entities? List out 5 commonly used HTML entities.

**Ans:-** HTML provides some method to display reserved characters. Reserved characters are those characters that are either reserved for HTML or those which are not present in the basic keyboard. For instance, '<' is reserved in HTML language.

Sometimes this character needs to display on the web page which creates ambiguity in code. Along with these are the characters which are normally not present in basic keyboard ( £, ¥, €, © ), etc. HTML provides some Entity names and Entity numbers to use these symbols. Entity names are case-sensitive. Entity number is easy to learn.

Result	Description	Name	Number
<	less than	&lt;	&#60;
>	greater than	&gt;	&#62;
&	ampersand	&amp;	&#38;
"	double quotation mark	&quot;	&#34;
'	single quotation mark	&apos;	&#39;
¢	cent	&cent;	&#162;
£	pound	&pound;	&#163;
¥	yen	&yen;	&#165;
€	euro	&euro;	&#8364;
©	copyright	&copy;	&#169;

**Q3. Define accessibility in the context of web development? Discuss why it's essential to create accessible websites and how it benefits different user groups.**

**Ans:-** Web accessibility refers to the practice of designing and developing websites that can be accessed and used by individuals with disabilities. It aims to remove barriers and provide equal opportunities for people with diverse abilities to navigate, understand, and interact with web content.

### **Importance of Accessible Websites:**

**Inclusivity:** Accessible websites ensure that everyone, including people with disabilities, can access and use online information and services.

**Legal Compliance:** Many countries have laws requiring websites to be accessible, avoiding legal issues and promoting equal access.

**User Experience:** Accessible design often leads to improved user experiences for everyone, including clear navigation and content structure.

**Business Growth:** Accessible websites reach a wider audience, increasing engagement, loyalty, and potential customer base.

### **Benefits for User Groups:**

**visual Impairments:** Accessibility provides screen reader support and text alternatives, aiding blind and visually impaired users.

**Hearing Impairments:** Captions and transcripts benefit those with hearing impairments by making audio content understandable.

**Motor Disabilities:** Keyboard navigation and easy-to-click elements assist users with motor limitations.

**Cognitive Disabilities:** Accessible design simplifies content and layout, aiding individuals with cognitive challenges.

**Elderly Users:** Accessible websites accommodate age-related limitations, ensuring usability for elderly users.

**Mobile Users:** Accessible design improves mobile experiences through simplified and responsive layouts.

**Q4. List any 3 ways which help us in improving the accessibility of HTML.**

**Ans:- 1.Include succinct, descriptive image alt text:**

Alt text is often forgotten when images are added to web pages. After all, most people only use alt text when searching for images in a search engine or conducting a reverse image search.

But for people using screen readers, alt text is all they have to rely on to learn about a displayed image. Users can get confused if an image's alt text isn't changed or isn't necessarily representative of what the image depicts. This is especially harmful if the image is critical to understanding the webpage.

**Make video content accessible:** While people with hearing impairment can typically use the internet with few difficulties, website owners should make considerations for the roadblocks those users do encounter. For example, if a website provides sound cues without companion visual cues, users with hearing impairment won't be able to interact with the site.

**Decide on accessible color choices:** Typically, color choices for websites involve whatever is trendiest in UX. This usually means a whole lot of unoffensive, definitely original blue. But color is an important consideration in web accessibility. In particular, designers may want to consider the needs of users with color blindness.

**Q5. Create a web page that highlights the features of HTML5. Use appropriate semantic tags to structure the content and showcase at least three key features of HTML5 with explanations.**

**Ans:-** <!DOCTYPE html>

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

```
    <meta name="viewport" content="width=device-  
width, initial-scale=1.0">
```

```
    <title>Document</title>
```

```
</head>
```

```
<body>
```

```
    <h1>Features of HTML5</h1>
```

```
    <div>
```

```
        <h2>Features 1: Video Playback</h2>
```

```
        <video controls src="excel.com.mp4"></video>
```

```
    </div>
```

```
    <div>
```

```
        <h2>Features 2: form validation</h2>
```

```
        <label for="">Email</label>
```

```
        <input type="email" name="" id=""><br>
```

```
        <button>Submit</button>
```

</div>

<div>

<h2>Features 3: Semantic Tags</h2>

<p>

HTML5 introduced semantic tags like  
<code>&lt;header&gt;</code>,&br/>

<code>&lt;nav&gt;</code>,&br/><code>&lt;main&gt;</code>, and more, which  
improve page structure and accessibility.

</p>

<footer>

<p>Created by Your Name &copy; 2023</p>

</footer>

</div>

</body>

</html>



## Output:

### Features of HTML5

#### Features 1: Video Playback



#### Features 2: form validation

Email

#### Features 3: Semantic Tags

HTML5 introduced semantic tags like `<header>`, `<nav>`, `<main>`, and more, which improve page structure and accessibility.

Created by Your Name © 2023

**Q6. Create a simple web page which has a table. The table must have 2 columns HTML and HTML5. The table should include a minimum of three rows describing the differences between HTML and HTML5.**

**Ans:-** `<!DOCTYPE html>`

`<html lang="en">`

`<head>`

`<meta charset="UTF-8">`

`<meta name="viewport" content="width=device-width, initial-scale=1.0">`

`<title>Document</title>`

`<style>`

`table, tr, th, td {`

```
        border: 1px black solid;
    }
</style>
</head>
<body>
    <h1>HTML VS HTML5</h1>
    <table>
        <tr>
            <th>HTML</th>
            <th>HTML5</th>
        </tr>
        <tr>
            <td>It didn't support audio and video without
the use of flash player support.</td>
            <td>It supports audio and video controls with
the use of <audio> and <video> tags</td>
        </tr>
        <tr>
```

`<td>It uses cookies to store temporary data.</td>`

`<td>It uses SQL databases and application cache to store offline data.</td>`

`</tr>`

`<tr>`

`<td>Does not allow JavaScript to run in the browser.</td>`

`<td>Allows JavaScript to run in the background. This is possible due to JS Web worker API in HTML5.</td>`

`</tr>`

`<tr>`

`<td>It does not allow drag and drop effects.</td>`

`<td>It allows drag and drop effects.</td>`

`</tr>`

`<tr>`

`<td>Not possible to draw shapes like circle, rectangle, triangle etc.</td>`

<td>HTML5 allows to draw shapes like circle, rectangle, triangle etc.</td>

</tr>

<tr>

<td>It can not handle inaccurate syntax.</td>

<td>t is capable of handling inaccurate syntax</td>

</tr>

<tr>

<td>Being an older version , it is not fast , flexible , and efficient as compared to HTML5.</td>

<td>It is efficient, flexible and more fast in comparison to HTML</td>

</tr>

</table>

</body>

</html>

Output:

HTML VS HTML5	
HTML	HTML5
It didn't support audio and video without the use of flash player support.	It supports audio and video controls with the use of
It uses cookies to store temporary data.	It uses SQL databases and application cache to store offline data.
Does not allow JavaScript to run in the browser.	Allows JavaScript to run in the background. This is possible due to JS Web worker API in HTML5.
It does not allow drag and drop effects.	It allows drag and drop effects.
Not possible to draw shapes like circle, rectangle, triangle etc.	HTML5 allows to draw shapes like circle, rectangle, triangle etc.
It can not handle inaccurate syntax.	It is capable of handling inaccurate syntax
Being an older version , it is not fast , flexible , and efficient as compared to HTML5.	It is efficient, flexible and more fast in comparison to HTML

Completed