1. list out the features of Html5.
   Answer:-
   HTML 5 is a sequel to HTML 4 and has never seen such a big update ever before. Moreover, HTML5 has emphasized its support for responsiveness, graphics, and rendering multimedia elements without having to rely upon any external content player like Adobe Flash Player.
   - Semantic Elements
     A semantic element clearly describes its meaning to both the browser and the developer
     .Examples of non-semantic elements: <div> and <span> - Tells nothing about its content.
     Examples of semantic elements: <form>, <table>, and <article> - Clearly defines its content.
     <article> <aside> <details> <figcaption> <figure> <footer> <header> <main> <mark> <nav> <section> <summary> <time>
   - Audio and Video Support
     To embed Audio and Video into your HTML document, you may use the following two tags, <audio> and <video> tags. These two tags are launched with the release of HTML 5 and support a numerous range of attributes such as height, width, and more that offers developers to leverage the customization of HTML documents.
   - Canvas Elements
     To initialize the Canvas element <canvas> tag is used with only two specific attributes, width and height. Once, the element is initialized, it is then taken care of with the help of JavaScript to draw shapes, lines, images, and more.
   - 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 times such as email, URL, and more, placeholder text, required fields feature, validation, and more.
   - Accessibility improvements
     HTML5 provides better support for accessibility, including the ability to provide alternative text for images and improved support for screen readers.
   - Geolocation API
     HTML5 provides an API for obtaining the user's location, enabling web applications to offer location-based services.
2. What are HTML Entities? List out 5 commonly used HTML entities.
   Answer:-
   HTML entities are special codes that represent reserved characters, symbols, or characters with specific meanings in HTML. They are used to display characters that might otherwise be interpreted as HTML code or cause rendering issues in web browsers. HTML entities are written using an ampersand (&) followed by a specific code or name, and ending with a semicolon (;).
   5 Commonly Used HTML Entities:
   < - Represents the less-than symbol <.
   > - Represents the greater-than symbol >.
   & - Represents the ampersand symbol &.
   " - Represents a double quotation mark "
   © - Represents the copyright symbol ©.

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

Answer:-

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, people can:

perceive, understand, navigate, and interact with the Web, contribute to the Web

It involves making web content inclusive and usable for everyone, regardless of their abilities.

- it's inclusive and gives equal access to all.
- it promotes usability
  Accessible design often leads to improved user experiences for everyone, including clear navigation and content structure.
- it's the right thing to do.
  Accessible websites reach a wider audience, increasing engagement, loyalty, and potential customer base.
- it's the law.
  Many countries have laws requiring websites to be accessible, avoiding legal issues and promoting equal access.

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

4. list any 3 ways which help us in improving the accessibility of HTML

answer:-

a. Semantic HTML

Semantic HTML means using correct HTML elements for their correct purpose as much as possible. Semantic elements are elements with a meaning; if you need a button, use the <button> element (and not a <div> element).

b. Headings Are Important

Headings are defined with the <h1> to <h6> tags:

Search engines use the headings to index the structure and content of your web pages.

Users skim your pages by its headings. It is important to use headings to show the document structure and the relationships between different sections.

c. Alternative Text

The alt attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

The value of the alt attribute should describe the image.If a browser cannot find an image, it will display the value of the alt attribute.

d. Declare the Language

You should always include the lang attribute inside the <html> tag, to declare the language of the Web page. This is meant to assist search engines and browsers.

5. 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.

Answer:-

```
<!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>Highlighting the features of HTML5</h1>
  <header>
    <h2>feature of header</h2>
    <p>The header element represents a group of introductory or navigational aids</p>
  </header>
  <section>
<h3>feature of section</h3>
<p>The section HTML element represents a generic standalone section of a document</p>
<p>A semantic element clearly describes its meaning to both the browser and the developer.
    Examples of non-semantic elements: &lt; DIV &gt; &amp; &lt; Span &gt;- Tells nothing about its content.
    Examples of semantic elements:&lt; form&gt; , &lt;table &gt;, &AMP; &lt; article &gt;   - Clearly defines its content.
</p>
    <article>
      <h3>feature of article</h3>
      <p>The article element specifies independent, self-contained content.</p>
    </article>
  </section>
  <h3>NAV feature</h3>
  <nav>
   <a href="#">HTML</a>
   <a href="#">css</a>
   <a href="#">js</a>
   <a href="#">HTML5</a>
  </nav>
  <section>
    <h3>feature of videos</h3>
   <video src="./sample-5s.mp4" controls width="400" height="200" muted >dummy video</video>
  </section>
  <br>
  <fieldset>
    <legend>email</legend>
```
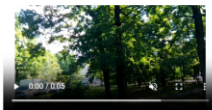
```
  <form action="" method="post">
    <label for="email">email id</label>
    <input type="email" name="email" id="email" placeholder="email id">
    <input type="button" value="submit">
  </form></fieldset>
  <br><br>
  <footer>Anuj Dhabarde &copy; 2024</footer>
</body>
</html>
```
Output:-

6. 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.
    Answer:-

```
<!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,td,th{border:1px solid black;} </style>
</head>
<body>
  <h1>Difference betweeen html and html5</h1>
  <table>
    <thead>
      <tr>
      <th>HTML</th>
      <th>HTML5</th>
      </tr>
      </thead>
      <tbody>
      <tr>
      <td>
        HTML does not provide native audio and video support.
      </td>
      <td>
```

```
        HTML5 provides native audio and video support.
    </td>
    </tr>
    <tr>
    <td>HTML only supports vector graphics if used in conjunction with different
technologies like Flash, VML, or Silverlight.</td>
    <td>
        HTML5 supports SVG (Scalable Vector Graphics), Canvas, and other virtual vector
graphics.
    </td>
    </tr>
    <tr>
    <td>HTML allows inline MathML and SVG in text with restricted use.</td>
    <td>HTML5 allows inline MathML and SVG in text</td>
    </tr>
    <tr>
      <td>
      Less semantic elements, thereby providing less web accessibility
      features.
      </td>
      <td>
      <p>
      It supports more semantic elements, such as &lt;header&gt;,
      &lt;footer&gt;, &lt;nav&gt;, and &lt;article&gt;, thereby
      improving accessibility.
      </p>
      </td>
      </tr>
      </tbody>
  </table>
</body>
</html>
```

Output:-

Difference betweeen html and html5

HTML	HTML5
HTML does not provide native audio and video support.	HTML5 provides native audio and video support.
HTML only supports vector graphics if used in conjunction with different technologies like Flash, VML, or Silverlight.	HTML5 supports SVG (Scalable Vector Graphics), Canvas, and other virtual vector graphics.
HTML allows inline MathML and SVG in text with restricted use.	HTML5 allows inline MathML and SVG in text
Less semantic elements, thereby providing less web accessibility features.	It supports more semantic elements, such as <header>, <footer>, <nav>, and <article>, thereby improving accessibility.