- Are the HTML tags and elements the same thing?

HTML tags and elements are related but not exactly the same thing in HTML (Hypertext Markup Language).

- **HTML Tags:** Tags are used to define elements within an HTML document. They are keywords enclosed in angle brackets < > that define how the browser should format and display content. For example, is a tag used to define a paragraph.
- **HTML Elements:** Elements are made up of a start tag, content, and an end tag (if applicable), all of which together represent a particular structure or semantics within a web page. An element starts with a start tag (e.g.,) and ends with an end tag (e.g.,). The content between these tags is what is displayed or processed by the browser.

 is a tag.

** Bhavik Patel ** is an element, where is the opening tag, Bhavik Patel is the content, and is the closing tag.

- What are tags and attributes in HTML?

Tags: Tags are keywords enclosed in angle brackets < > that define the structure and semantics of elements within an HTML document. Some tags are self closing tags.

Examples:
- ** :** Defines a paragraph.
- **<h1> to <h6>:** Define headings of different levels.
- **<img>:** Defines an image.
- **<a>:** Defines a hyperlink.
- ** :** Defines a division or section in the document.

Attributes: Attributes provide additional information about HTML elements and are always included in the opening tag of an element.

Examples:
- Click Here

<a> is the tag defining a hyperlink element.
href, class, and id are attributes of the <a> tag.
- href="https://www.example.com" specifies the destination URL of the link.
- id="example-link" provides a unique identifier example-link for the element.

- What are void elements in HTML? With Example.

Void elements are self-closing, meaning they do not require a closing tag Void elements do not have an end tag because they can't contain any content within them.

Example of void element:

- **<img>**: Used to embed images in a web page.
  - Example: <img src="image.jpg" alt="Description">
- **
**: Inserts a single line break.
  - Example: Bhavik in First line
Bhavik in Second line

- **<input>**: Used for input fields in forms.
    - Example: <input type="text" name="username">
- **<hr>**: Represents a thematic break or horizontal rule.
    - Example: <hr>

What are HTML Entities? With Example

HTML entities are codes used to represent special characters and symbols in HTML, ensuring they display correctly in web browsers. HTML entities allow developers to display characters correctly in web pages without them being misinterpreted by browsers as HTML code. They are particularly useful when dealing with symbols, special characters, or characters from different languages that are not directly supported by standard keyboard input or may conflict with HTML syntax.

Examples include **&lt**; for <, **&amp**-for ©.

What are different types of lists in HTML? With Example

In HTML, there are three main types of lists: **ordered lists**, **unordered lists**, and **definition lists**. Each type is used to structure and present information in a specific format.

1**. Ordered Lists (<ol>):**

- **Definition:** Ordered lists are used to create a list where each item is numbered sequentially.
- **Example**

```
<ol>
  <li>First Bhavik</li>
  <li>Second Bhavik</li>
  <li>Third Bhavik</li>
</ol>
```

- **Output:**
    1. First Bhavik
    2. Second Bhavik
    3. Third Bhavik

2. Unordered Lists (<ul>):

- **Definition:** Unordered lists are used to create a list where each item is bulleted or marked with a special symbol such as circle,disc,square
- **Example:**

```
<ul>
  <li>Red</li>
  <li>Green</li>
  <li>Blue</li>
</ul>
```

- **Output:**
    - Red
    - Green
    - Blue

3. Definition Lists (<dl>):

- **Definition:** Definition lists are used to create a list of terms and their definitions.
- **Example:**

```
<dl>
 <dt>HTML</dt>
 <dd>Hypertext Markup Language</dd>
 <dt>CSS</dt>
 <dd>Cascading Style Sheets</dd>
</dl>
```

- **Output:** HTML:
  Hypertext Markup Language
  CSS:
  Cascading Style Sheets

- What are the various formatting tags in HTML?

HTML provides basic formatting tags to style text directly:

- <b> for bold text
- <i> for italic text
- <u> for underlined text
- <s> for strikethrough text
- <sub> for subscript text
- <sup> for superscript text
- <code> for code snippets
- <mark> for highlighted text

- How is Cell Padding different from Cell Spacing? With Example

Cell padding is used to create a border around the content area of a web page, whereas cell spacing is used for positioning elements (such as images or text) within that content area. Both cell padding and cellspacing are used to insert whitespaces in the table cells. The most basic difference between cellpadding and cellspacing is that the cellpadding is used to set the whitespace between cell edge and cell content, whereas cellspacing is used to set the whitespace between two cells. Cell padding can be set through CSS, while cell spacing can only be controlled using HTML5.

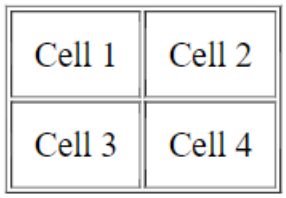
Cell Padding:

- **Definition:** Cell padding specifies the space between the content of a cell and its border.
- **Attribute:** Controlled using the cellpadding attribute within the <table> tag.
- **Example:**

```
<table cellpadding="10" border="1">
 <tr>
  <td>Cell 1</td>
  <td>Cell 2</td>
 </tr>
 <tr>
  <td>Cell 3</td>
```

```
    <td>Cell 4</td>
  </tr>
</table>
```

Output: Adds 10 pixels of space inside each cell, between the content and the cell's borders.

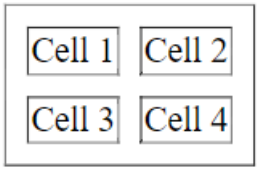


Cell Spacing:

- **Definition:** Cell spacing specifies the space between adjacent cells in the table.
- **Attribute:** Controlled using the cellspacing attribute within the <table> tag.
- **Example:**

```
<table cellspacing="10" border="1">
  <tr>
    <td>Cell 1</td>
    <td>Cell 2</td>
  </tr>
  <tr>
    <td>Cell 3</td>
    <td>Cell 4</td>
  </tr>
</table>
```

Output: Adds 10 pixels of space between adjacent cells in the table, creating visible gaps between cells.



- How can we club two or more rows or columns into a single row or column in an HTML table? With Example.

In HTML tables, you can merge two or more rows or columns into a single row or column using the **rowspan** and **colspan** attributes, respectively. These attributes allow you to span a cell across multiple rows or columns, creating a visually unified cell in the table.

Example of Spanning Rows (rowspan): To merge cells into a single row spanning multiple rows, use the rowspan attribute within the <td> (table data) or <th> (table header) tag.

```
<table border="1">
  <tr>
```

```
  <td>Row 1, Cell 1</td>
  <td rowspan="2">Row 1-2, Cell 2</td>
  <td>Row 1, Cell 3</td>
 </tr>
 <tr>
  <td>Row 2, Cell 1</td>
  <td>Row 2, Cell 3</td>
 </tr>
 <tr>
  <td>Row 3, Cell 1</td>
  <td>Row 3, Cell 2</td>
  <td>Row 3, Cell 3</td>
 </tr>
</table>
```

Output:

Row 1, Cell 1	Row 1-2, Cell 2	Row 1, Cell 3
Row 2, Cell 1		Row 2, Cell 3
Row 3, Cell 1	Row 3, Cell 2	Row 3, Cell 3

Example of Spanning Columns (colspan): Similarly, to merge cells into a single column spanning multiple columns, use the **colspan** attribute within the **<td>** or **<th>** tag.

```
<table border="1">
 <tr>
  <td>Column 1, Row 1</td>
  <td>Column 2, Row 1</td>
  <td colspan="2">Column 3-4, Row 1</td>
 </tr>
 <tr>
  <td colspan="2">Column 1-2, Row 2</td>
  <td>Column 3, Row 2</td>
  <td>Column 4, Row 2</td>
 </tr>
</table>
```

Output:

Column 1, Row 1	Column 2, Row 1	Column 3-4, Row 1	
Column 1-2, Row 2		Column 3, Row 2	Column 4, Row 2

- What is the difference between a block-level element and an inline element?

Block elements always start from a new line. Inline elements never start from a new line. Block elements cover space from left to right as far as it can go. Inline elements only cover the space as bounded by the tags in the HTML element.

Block-level elements: These typically start on a new line and take up the full width available, by default. They respect the width, height, margin, padding, and border properties. Examples include , <p>, <h1>-<h6>, <form>, etc.

Inline elements: These do not start on a new line and only take up as much width as necessary. They generally ignore width, height, margin-top, margin-bottom, and will only respect padding, margin-left, margin-right, and border if explicitly set. Examples include , <a>, , , <img>, etc.

- How to create a Hyperlink in HTML? With Example.

The <a> element is used to create a hyperlink. It requires an href attribute that specifies the URL of the destination page or resource. Hyperlink is used to move one page to another page.

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Example Hyperlink</title>
</head>
<body>

   <h1>Example Hyperlink</h1>
   <p>This link redirect you in Google <a href="https://www.example.com">Click here</a>.</p>

</body>
</html>
```

Output:

- What is the use of an iframe tag? With Example.

An `<iframe>` (short for inline frame) tag in HTML is used to embed another document within the current HTML document. This allows you to display content from another source, such as a different website or a different part of the same website, directly within your webpage.

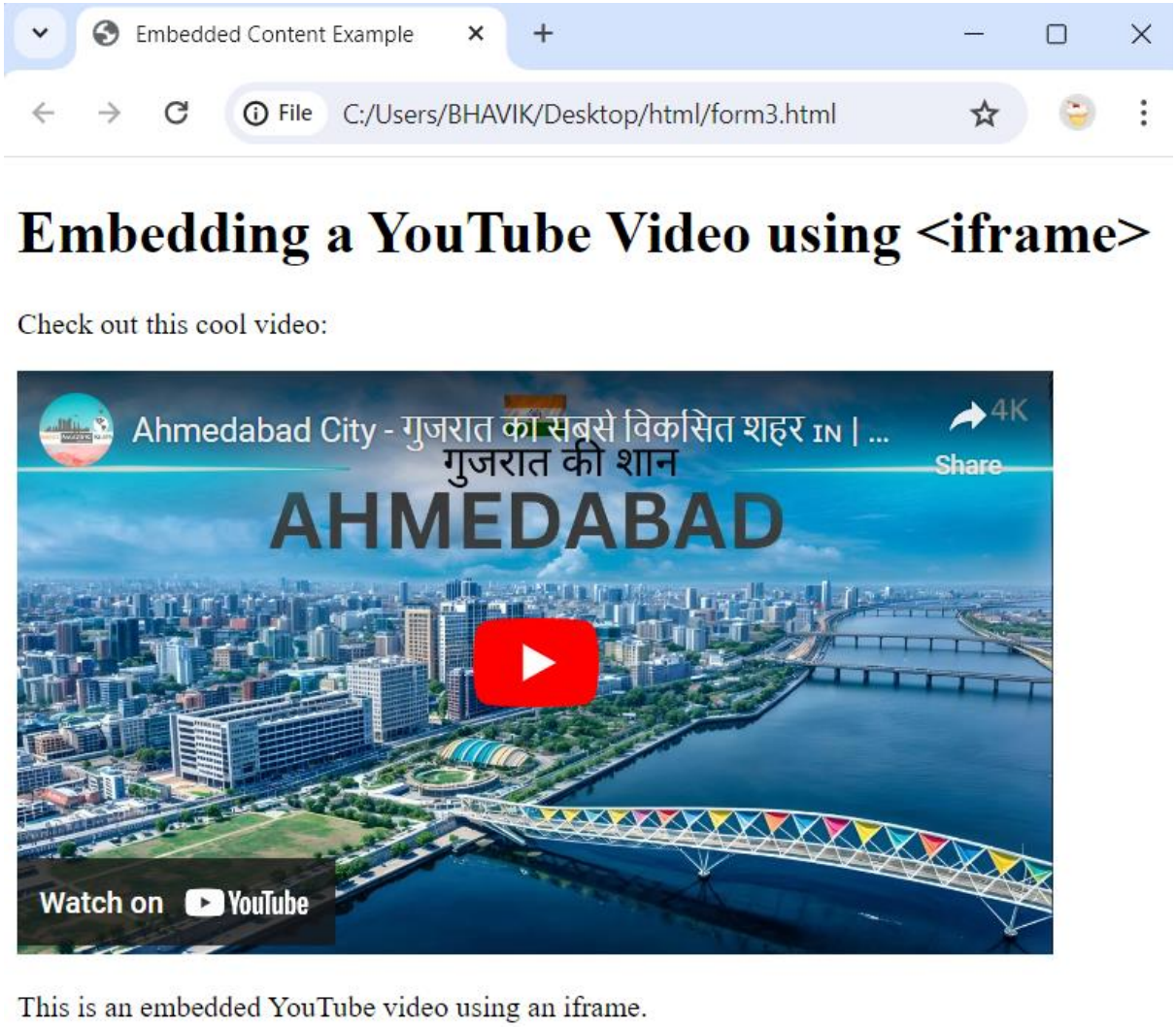
Usage Scenarios:

- **Embedded Videos**: Like the YouTube example, you can embed videos from various sources (YouTube, Vimeo, etc.).
- **Maps**: Embed interactive maps from Google Maps or other mapping services.
- **External Content**: Show content from another webpage within your own.
- **Secure Document Viewing**: Display PDFs or documents securely.

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Embedded Content Example</title>
</head>
<body>
   <h1>Embedding a YouTube Video using &lt;iframe&gt;</h1>
   <p>Check out this cool video:</p>
   <iframe width="560" height="315" src="https://www.youtube.com/embed/vcXQ43k-
JBg?si=cwWsDnIy_r95lnOc" frameborder="0" allowfullscreen></iframe>
   <p>This is an embedded YouTube video using an iframe.</p>
</body>
</html>
```

Output:



- What is the use of a span tag? Explain with example?

  The tag in HTML is used to group inline-elements in a document. It does not add any extra meaning to the content but is used to apply styles or manipulate elements with JavaScript.

  Example:

  I am Bhavik Patel.

  Output:

  I am Bhavik Patel.

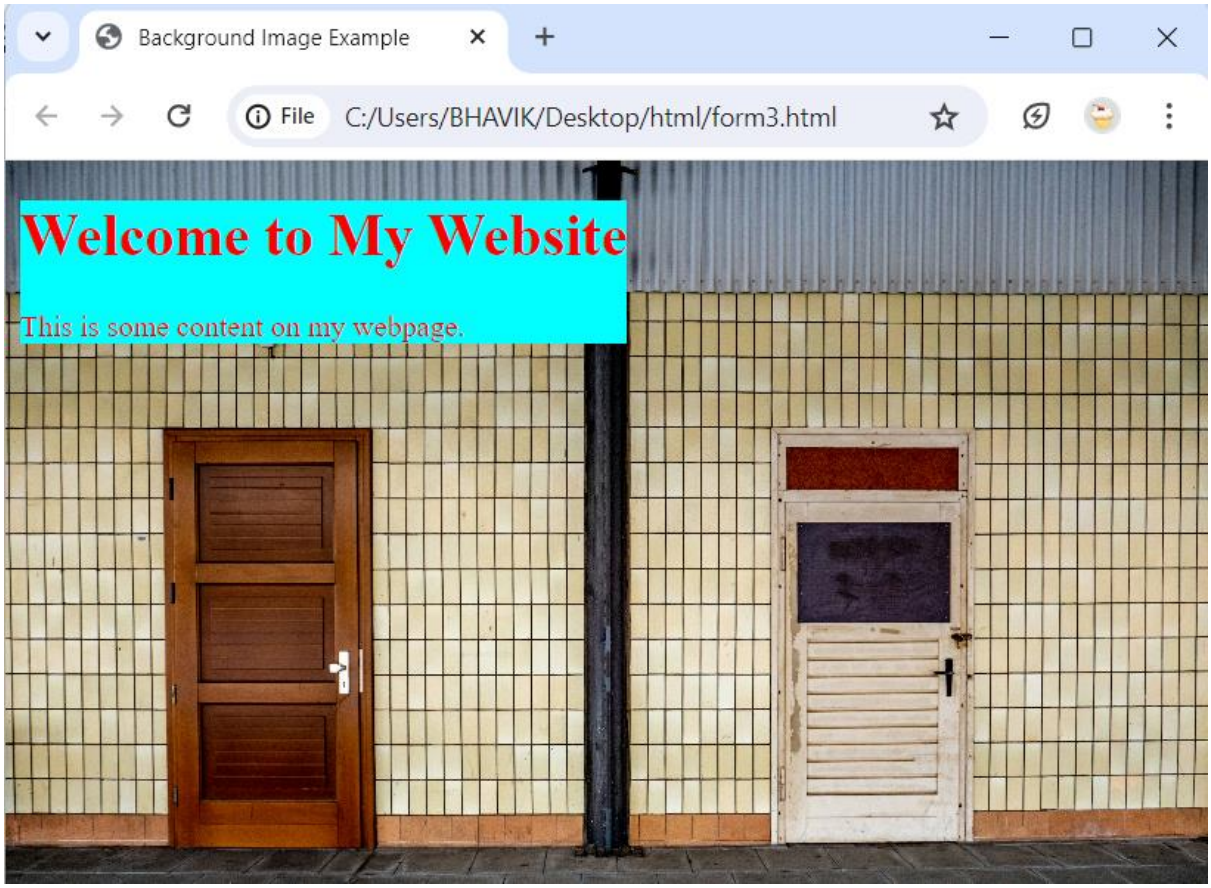
- How to insert a picture into a background image of a web page? With Example.

To insert a picture into the background of a web page, you can use CSS (background-image property) to set the background and then position another image or content on top of it using HTML.

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Background Image Example</title>
  </head>
<body style="background-image: url('../html/mini project/images/door.jpg'); background-size: cover; ">
        <div style="color: red;background-color: aqua;width: fit-content;">
  <h1>Welcome to My Website</h1>
  <p>This is some content on my webpage.</p>
  </div>
  </body>
  </html>
```

Output:



- What are the different tags to separate sections of text?

  In HTML, there are several tags available to separate sections of text, each with its own semantic meaning and intended use. Here are some of the commonly used tags to separate sections of text:

  Division Tag:

- Used as a generic container for grouping and styling sections of content.
- Does not add any semantic meaning by itself.
- Typically styled with CSS to control layout and appearance.

  Section <section> Tag:

- Defines a section in a document.
- Used to group related content together, such as chapters, headers, footers, etc.
- Helps with structural organization.

  We can also use paragraph <p> tag , heading <h1> to <h6> tag

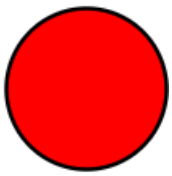
- What is SVG?

SVG stands for Scalable Vector Graphics. It is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation. The SVG file format is a popular tool for displaying two-dimensional graphics, charts, and illustrations on websites. Plus, as a vector file, it can be scaled up or down without losing any of its resolution.

Example:

```
<svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="black" stroke-width="2" fill="red" />
</svg>
```

Output:



- What are logical and physical tags in HTML?

In the context of HTML, the terms "logical tags" and "physical tags" were historically used to distinguish between elements based on their intended structural or presentational roles. However, these terms have become less relevant with the evolution of HTML and best practices. Here's an overview of what they used to represent:

Logical Tags:

- **Definition**: Logical tags refer to HTML elements that describe the structure and meaning of content, rather than its presentation.
- **Examples**: Tags like <h1> to <h6> (for headings), <p> (for paragraphs), <ul>, <ol>, <li> (for lists), <table>, <tr>, <td> (for tables), <section>, <article>, <header>, <footer>, etc.
- **Usage**: These tags focus on organizing content semantically, making it easier for browsers, search engines, and assistive technologies to interpret and present content correctly.

Physical Tags:

- **Definition**: Physical tags historically referred to HTML elements that conveyed specific presentational or stylistic meanings to web browsers.
- **Examples**: Tags like <b> (bold), <i> (italic), <u> (underline), <font> (for specifying font face, size, and color), and attributes like align, bgcolor, etc.
- **Usage**: They were used to directly control how content appeared visually on the screen, emphasizing style over semantic meaning.

Practical:

```
<!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>
    <center>
        <table border="1" cellspacing="0" style="width: 80%;">
            <tr>
                <th rowspan="2"><a href="">Home</a></th>
                <th rowspan="2"><a href="">about</a></th>
                <th rowspan="2"><a href="">contact</a></th>
                <th rowspan="2"><a href="">Help</a></th>
                <th rowspan="2"><a href="">Store</a></th>
                <th style="background-color:red;"><a href="">Download</a></th>
            </tr>
            <tr>
                <th style="background-color:red;">app</th>
            </tr>
            <tr>
                <td colspan="6">
                    <img src="./mini project/images/door.jpg" style="height: 250px;width:100%;">
                </td>
            </tr>
            <tr>
                <td colspan="6" bgcolor="pink">
                    <center>contact-us-page</center>
                </td>
            </tr>
            <tr>
                <td colspan="6">
                    <img src="./mini project/images/contact us.jpg" style="height: 250px;width:100%;">
                </td>
            </tr>
            <tr>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b>First Name</b>
                    <input type="text" placeholder="Enter your name">
                </td>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b>Last Name</b>
                    <input type="text" placeholder="Enter your name">
```

```
                </td>
            </tr>
            <tr>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b>Email Id</b>
                    <input type="email" placeholder="Enter your email id">
                </td>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b>Phone No</b>
                    <input type="text" placeholder="Enter your phone no.">
                </td>
            </tr>
            <tr>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b>City</b>
                    <select>
                        <option value="">AHMEDABAD</option>
                        <option value="">SURAT</option>
                        <option value="">RAJKOT</option>
                        <option value="">JAMNAGAR</option>
                    </select>
                </td>
                <td colspan="3" style="text-align: center;background-color: skyblue;">
                    <b style="margin-right: 5px;">Gender</b>
                    MALE<input type="radio" name="abc">
                    FEMALE<input type="radio" name="abc">
                    OTHER<input type="radio" name="abc">
                </td>
            </tr>
            <tr>
                <td colspan="3">
                    <iframe
                        src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3672.7211352020163!
2d72.606427775516372!3d22.99727987919153!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x395e85c2fc
005927%3A0x918e69150ca1c935!2sTOPS%20Technologies%20-
%20Best%20IT%20Training%20Institute%20in%20Ahmedabad!5e0!3m2!1sen!2sin!4v1718259201260!5m2!1sen!2sin"
                        height="350" style="width: 100%;" allowfullscreen="" loading="lazy"
                        referrerpolicy="no-referrer-when-downgrade"></iframe>
                </td>
                <td colspan="3">
                    <iframe src="https://www.youtube.com/embed/vcXQ43k-JBg?si=cwWsDnIy_r95lnOc"
frameborder="0"
                        title="YouTube video player"
                        allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope;
picture-in-picture; web-share"
                        referrerpolicy="strict-origin-when-cross-origin" allowfullscreen
                        style="border: 2px solid white;height: 350px;width: 100%;">
                    </iframe>
```

```
                </td>
            </tr>
        </table>
    </center>
</body>

</html>
```

Output: here I minimize size of window for taking ss in one page.