1. **HTML elements:**
   ❖ It is all about the opening tag and the closing tag

Example tags: <h1>...</h1> to <h6>...</h6>

<p>...</p>

   ❖ Some tags doesn't have closing tag (eg: <br>)

Nested HTML elements

   ❖ It means that the elements can contain other elements

Example:

<html>

<head>Nested elements</head>

<body>

<h1>My skills</h1>

C

Python

Full stack

</body>

</html>

Explanation:

Under the body tag the tags like <h1>..</h1>, <ul>.. are nested meanwhile under the <ul> tag the <li>.. tag is nested.

   ❖ Never forget to close the tag if we forget to close the tag the unexpected errors and results may occur
   ❖ The tag does't have closing tag it is known as the empty tag for example, <br>, <img>
   ❖ HTML is non case sensitive we can use both uppercase and lowercase

EXAMPLE CODE

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Elements</title>
</head>
<body>
    <!-- Basic tags -->
    <h1>Welcome to technical class-1</h1>
    <p>This class contains the basics of HTML</p>
```

```
    <!-- Nested elements -->
    <h3>My skills</h3>
    <ul>
        <li>C</li>
        <li>Python</li>
        <li>Java</li>
        <li>Full stack</li>
    </ul>
    <!-- empty tags like <br>,<img> -->
    <p>The above skills are trained and certified </p> <br>
    <p>It have more scope in future</p>
    <img
src="https://th.bing.com/th/id/OIP.OBnsCIcYMo7riNYuutRMaQHaEK?w=276&h=180&c=7&
r=0&o=7&dpr=1.5&pid=1.7&rm=3">

</body>
</html>
```

2. HTML attributes

❖ Attributes are providing additional information about the elements

❖ It is always specified in the starting tag

❖ It always comes in the combination of name value pairs like name:"value"

1.<a href=""> - <a > tag is used for the hyperlink and href is the attrubute that contains the link for moving into that website while touch the link

2.<img src=""> - <img> tag is used for the image and ths src is the attribute which contains the image address

Two ways to specify URL in src attributes

      1.absolute URL : it links to an external image which is hosted in another website and also it includes domain name

      2.Relative URL : it links an image hosted within the website which does not contain any domain name.

3. Height and width attribute – it is an attribute which is used to adjust the height and width of the image within the <img tag>

Example : <img src=" " height="300px" width="300px">

4. alt attribute - this attribute is used to provide alternate text for an image

Example : <img src=" " alt="coffee-image">

5. style attribute - this attribute is used to add style for an element

Example : <h1 style="font-color:green">Subasri</h1>

6. lang attribute – should always include the lang attribute inside the html tag it indicates the language of the webpage

Example : <html lang="en">

7.title attribute- this attribute is used to defining some extra information about an element
Example:
<!DOCTYPE html>
<html>
<body>

<h2 title="web developer">I am the web developer</h2>
<p title=skillset>It needs various skills</p>
</body>
</html>

8. Quote attribute- the quote attribute is not mandatory but it is a suggestion for the easy understanding

Example: <img src=" ">

9.Single or double quotes- we can use both single and double quotes

Example

```html
<!DOCTYPE html>
<!-- lang attribute -->
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Attributes</title>
</head>
<body>
    <!-- href attribute -->
    <a
href="https://www.bing.com/search?q=attributes%20in%20html&qs=n&form=QBRE&sp=-1&ghc=1&lq=0&pq=attributes%20in%20html&sc=12-18&sk=&cvid=CD587132BEFD4CED932D7CCF9362222D">Click me 🖐</a>
    <br>
    <!-- img attribute absolute URL -->
    <img
src="https://th.bing.com/th/id/OIP.ItPElbKTN1rZkFpJlKcNXwHaD4?w=290&h=180&c=7&r=0&o=7&dpr=1.5&pid=1.7&rm=3" style="margin-top: 30px;">
    <br>
    <!-- img attibute relative URL -->
    <img src="./att.webp" style="margin-top: 30px;">
    <br>
    <!-- width and height attribute -->
    <img src="./att.webp" height="300px" width="300px" style="margin-top: 30px;">
```

```html
      <br>
      <!-- alt attribute -->
       <img src="att" alt="attribute-image" style="margin-top: 30px;">
       <br>
       <!-- style attribute -->
        <h2 style="color: purple; padding: 10px;">Hii everyone!!!!</h2>
        <br>
        <!-- title attribute -->
         <h2 title="web developer">areas to develop for the role web
developing are HTML CSS and JS </h2>
        <!-- Quote attribute -->
         <a href="https://www.geeksforgeeks.org/">🤚Touch me</a>
         <br>
         <!-- single quotes -->
          <a href='https://www.geeksforgeeks.org/'>View me🤚</a>
          <br>
          <!-- Double quotes -->
           <a href="https://www.geeksforgeeks.org/">🤚Explore me</a>

</html>
```

3. HTML headings

❖ HTML heading tags contains 6 headings from <h1>...</h1> to <h6>...</h6>
❖ <h1>...</h1> defines the most important heading
❖ <h6>...</h6> defines the least important heading
   Example:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Headings</title>
</head>
<body>
    <h1 style="text-align: center; color: crimson;">HTML headings</h1>
    <!-- heading 1 -->
     <h1 style="color: cadetblue; font-family: Verdana, Geneva, Tahoma, sans-
serif;">Good morning!!!</h1>
      <!-- heading 2 -->
       <h2 style="color: palevioletred; font-family: Verdana, Geneva, Tahoma,
sans-serif;">Good morning!!!</h2>
        <!-- heading 3 -->
```

```html
            <h3 style="color: green; font-family: Verdana, Geneva, Tahoma, sans-
serif;">Good morning!!!</h3>
            <!-- heading 4 -->
            <h4 style="color: chocolate; font-family: Verdana, Geneva, Tahoma,
sans-serif;">Good morning!!!</h4>
            <!-- heading 5 -->
            <h5 style="color: olivedrab; font-family: Verdana, Geneva,
Tahoma, sans-serif;">Good morning!!!</h5>
            <!-- heading 6 -->
            <h6 style="color:yellowgreen; font-family: Verdana, Geneva,
Tahoma, sans-serif;">Good morning!!!</h6>
</body>
</html>
```

4. HTML paragraphs

❖ It always starts on a new space and browser automatically add some white
   space before and after a paragraph
❖ If we add extra space in the HTML code the browser automatically remove the
   space
❖ **HTML horizontal rule-** the <hr> tag defines a thematic break in an HTML page
   and also it is used for seperate content
❖ **HTML line break-** the <br> tag is used for the line break if we want to break the
   line without starting a new paragraph we can use <br> tag
❖ **Preformatted text-** the <pre>,,</pre> tag is used to dispaly the lines as it is the
   HTML code it is mostly used to write the poems
   Example

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Paragraphs</title>
</head>
<body>
    <!-- basic paragraph tag -->
    <h4><strong> Basic paragraph tag</strong></h4>
    <p>
        Jhonny jhonny yes papa
        Eating sugar no papa
        telling lies no papa
        open your mouth haha!!!
    </p>
    <br>
    <!-- horizontal rule -->
    <h4><strong> horizontal rule</strong></h4>
    <hr>
```

```
        <h1>Poem</h1>
        <p>
            Jhonny jhonny yes papa
            Eating sugar no papa
            telling lies no papa
            open your mouth haha!!!
        </p>
        <br>
        <!-- HTML line break -->
        <h4> <strong> line break</strong></h4>
        <p>
            Jhonny jhonny yes papa <br>
            Eating sugar no papa <br>
            telling lies no papa <br>
            open your mouth haha!!! <br>
        </p>
        <br>
        <!-- Preformatted text -->
        <h4><strong> preformatted text</strong></h4>
        <pre>
        Jhonny  jhonny   yes   papa
        Eating   sugar   no    papa
        telling  lies    no    papa
        open    your    mouth   haha!!!

        </pre>
</body>
</html>
```

5. HTML styles

♦ There are 3 main ways to apply the styles in HTML. They are as follows:
1. Inline CSS –The styles included within the tag
> **2.Internal CSS-** in this styles are included within the <style> tag under the <head> tag
>> **3. External CSS –** this have seperate .css file which is linked with the HTML file

Basic CSS style properties

1. **Color-** used to change the font color
2. **Background-color-** used to change the background color of the webpage
3. **Font-size-** used to adjust the size of the font or text
4. **Font-family-** we can choose any font families for our website by using this
5. **Text-allign-** allignment of the text (i,e) left, right, center
6. **Margin-** space outside the text

7. **Padding-** space ariund the text
8. **Border-** border around the elements

Example: Inline CSS

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Email Template Example</title>
    <meta charset="UTF-8">
  </head>
  <body style="margin: 0; padding: 0; background-color: #f4f4f4; font-family:
Arial, sans-serif;">

    <!-- Outer Container -->
    <table width="100%" cellpadding="0" cellspacing="0" border="0"
style="background-color: #f4f4f4; padding: 20px;">
      <tr>
        <td align="center">

          <!-- Email Body -->
          <table width="600" cellpadding="0" cellspacing="0" border="0"
style="background-color: #ffffff; border: 1px solid #dddddd;">

            <!-- Header -->
            <tr>
              <td style="background-color: #4cb96b; padding: 20px; text-align:
center;">
                <h1 style="color: white; margin: 0; font-size:
24px;">GeeksforGeeks</h1>
              </td>
            </tr>

            <!-- Content -->
            <tr>
              <td style="padding: 20px; color: #333333; font-size: 16px;">
                <p style="margin-top: 0;">Hi there,</p>
                <p>This is a sample HTML email template with <strong>inline
CSS</strong>. Inline styles help ensure that your content looks consistent
across different platforms, especially in email clients like Gmail, Outlook,
etc.</p>
                <p style="margin-bottom: 0;">Thank you for reading!</p>
              </td>
            </tr>

            <!-- Button -->
            <tr>
```

```html
            <td align="center" style="padding: 20px;">
                <a href="https://www.geeksforgeeks.org/"
                    style="background-color: #4cb96b; color: white; padding:
10px 20px; text-decoration: none; display: inline-block; border-radius: 5px;">
                    Visit GeeksforGeeks
                </a>
            </td>
        </tr>

        <!-- Footer -->
        <tr>
            <td style="background-color: #eeeeee; padding: 10px; text-align:
center; color: #777777; font-size: 12px;">
                &copy; 2025 GeeksforGeeks. All rights reserved.
            </td>
        </tr>

    </table>
    </td>
    </tr>
    </table>

</body>
</html>
```