Getting started with HTML and Emmet

Q1. Write a simple program in HTML that displays the heading "I am happy to Learn Web Development" on the web browser.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Assignment1</title>
</head>
<body>
  <h1>I am happy to Learn Web Development</h1>
</body>
</html>
```

Q2. Write a simple program in HTML, the webpage must contain the heading "Comments" and below the heading add some information about comments.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>question2</title>
</head>
<body>
  <h1>Comments</h1>
  <p>Comments are developer friendly,they are used to understand code better
later on.They are not displayed on the webpage,but they can be visible if anyone
views the page source. Writing commets make code easier to understand and is
useful while debugging.</p>

  <!-- This is a comment  -->
```

```
<p>  Shortcut to comment a line is <strong> ctrl+/ </strong>.</p>


<p>Comments are of 3 types</p>
<ol>
  <li>Single-line comment</li>
  <!-- This is a single line comment  -->
  <li>inline comments <!--where we can comment anywherein between the tag -->
,only the comments inside the comment tag gets commented.  </li>
  <li>Multi-line comments </li>
  <!-- Where we can write any
  number of lines-->
</ul>
</body>
</html>
```

Q3. Write a short note on tags, elements, and attributes along with relevant examples.

Tags:
HTML tag tells the browser how to format and display the content on the web page.It is used to mark the start or end of an element. They are not displayed on a web page.The content inside it is displayed. Some of the tags doesn't have a closing tag these are called self closing tags,for example: image tag *<img>* , line break *
* , *<input>*

Example:
Header tag <mark><h1></mark> Heading goes here <mark></h1></mark>
<h1> - opening tag
</h1> -closing tag

Element:
Each element has an opening tag <> , closing tag </> and content in between them.They are the building blocks of a web page.
Example:
<mark><p> This is a paragraph content <p></mark>   - This is an paragraph element

Attributes:
Attributes allow you to customize a tag and are defined within the opening tag. They give additional information about the HTML element, we can add multiple attributes in a single element. Some of the tags have default attributes(like anchor *<a>* tag has href as an attribute) and some are global attributes that can be used anywhere(like title tag <title>).

Example:
Class, title,href, src etc.,
<p Class="paragraph" > </p>

Q4. List out any 3 tags we learned in this module and give a brief explanation about the tags.

i.Anchor tag:
It is used to create hyperlink to another webpage. The URL of the hyperlink is given in the *href* attribute.

Example:

```
<a href="https://www.google.com"> Google Link</a>
```


ii.List tag:
 tag defines ordered list of items,default order is 1,2,3..If we want to change the order we need to add type attribute to a,A,i,I.
 tag defines unordered list,it does not have any order by default bullet points.
 is used to create list items in an ordered and unordered list.
Example: ordered list has 3 items

```
<ol>
    <li>item1</li>
    <li>item2</li>
    <li>item3</li>
 </ol>
```


iii.Table tags:
Table tag is used to create a table inorder to represent tabular data on the web page. Table tag has many components
<table> the table starts and ends with this tag.Add border in the start tag to get the border of the table
<thead> used to define a row in a table that represents the head of a table.
<th> used to define header cells.
<tbody> body part of a table.
<tr> used to create a row of cells in a table.
<td> is used to create a cell to contain table data.
<tfoot> is used to sum all the rows at the end of the table.

```html
<table border="2">
  <thead>
    <tr>
      <th> Item</th>
      <th>Amount</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Vegetables</td>
      <td>100</td>
    </tr>
  </tbody>
  <tbody>
    <tr>
      <td>Milk</td>
      <td>50</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <td>Total</td>
      <td>150</td>
    </tr>
  </tfoot>
</table>
```

Item	Amount
Vegetables	100
Milk	50
Total	150

Q5. What is emmet? List some of the advantages emmet offers?
Emmet is a set of plug-ins for text editors that allow us to type shortcuts that can be expanded into full piece of code. It is a built-in feature of VS Code.
It helps in high speed coding and editing.
Auto completion leads to fewer missing tags.
Increase productivity.

Q6. Using emmet create another web page similar to questions 1 and 2.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Question6</title>
</head>
<body>
  <!-- h1{I want to become a Full stack web developer} -->
  <h1>I want to become a Full stack web developer</h1>
  <!-- h2{HTML} -->
  <h2>HTML</h2>
  <!-- p{HTML stands for Hyper Text Markup Language. It is used to create the
structure of web pages. Hypertext defines the link between the web poages and
markup language defines the text document within the tag that defines the
structure of web page.}  -->
  <p>HTML stands for Hyper Text Markup Language. It is used to  create the
structure of web pages. Hypertext defines the link between the web pages and
markup language defines the text document within the tag that defines the
structure of web page.</p>
</body>
</html>
```

Q7. Explain in brief about the nesting operators in emmet.
Nesting operators in emmet are used to place elements inside or near the context element.
Child: Places inside the other element uses ">" operator for this
Sibling: Places on the same level uses "+" operator
Multiplication: multiples the element given number of times "*" operator
Grouping: Groups subtress in complex abbreviations uses "()"
Item Number: Items can be numbered by using "$" symbol
ID and class Attributes: use "#" for ID and "." for class
Adding text: Add content in the "{}"

Q8. Build a simple webpage using any 2 emmet abbreviations and above the elements mention the emmet abbreviation using HTML comments

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Emmet Abbreviation</title>
</head>
<body>
 <!-- div>ol>li*3{item$}  Here inside div order list with 3 items using '>'
operator to nest elements inside each other.-->
 <div>
  <ol>
    <li>item1</li>
    <li>item2</li>
    <li>item3</li>
  </ol>
 </div>

 <!-- table>(tr>th{header$}*2)+((tr>td{data$}*2))*2 -->
 <!-- This is table with 3 rows(including header) and two coloums later added
table border to it-->
 <table border="2">
  <tr>
    <th>header1</th>
    <th>header2</th>
  </tr>
  <tr>
    <td>data1</td>
    <td>data2</td>
  </tr>
  <tr>
    <td>data1</td>
    <td>data2</td>
  </tr>
 </table>
```

```
<!-- div.box+p{paragraph} -->
<!--div and p are sibilings(uses '+' operator) and div has a class 'box' -->
<div class="box"></div>
<p>paragraph and div are on same level</p>


</body>
</html>
```

Q9. What are self-closing tags? Write a brief note on meta tags?

Self-closing tag:

Self-closing tags don't have an end tag.They are also known as empty tags or singletons tags.

Examples:

<img> used to define an image.

 used to create a line break.

<input> used to create an input field.

<hr> used to create a horizontal line.

Meta tag:

<meta> used to give metadata to the webpage.

Meta tags is data about data, they provide information of the web page.They are part of head section,they don't appear in web page but only in page's source code and can be used to scan the web page to know about it.It specifies page description,copyright,language,author of the document etc.,

Q10. What are global attributes? List any global attributes.

Global attributes can be used in all the HTML elements.These are common for all HTML elements.

Examples:

<title> It is used to provide the title,name,or some extra information about the element.It is visible when we hover over it.

<class> specifies the class to which an element belongs, and can be used in CSS styling.

<id> defines a unique id for an element.

<style> can be used as an inline CSS style for an element.

<lang> It is used to specify the language of the element content

<draggable> It is used to specify whether an element is draggable or not..