HTML Basics | Assignment

Question 1 :
Explain the basic structure of an HTML page. Why is it important to follow this structure?

Answer →
- !DOCTYPE html — Declares the document as an HTML5 document and helps browsers render it correctly.
- html - The root element enclosing all HTML content (except the doctype).
- head - Contains meta-information like page title, character set, and links to stylesheets/scripts; not visible to users.
- title - Shown in the browser tab title bar.
- body - Holds all the content visible to users, including headings, paragraphs, images, links, etc..

Why Following This Structure Is Important

- Browser Compatibility: Ensures all browsers can display the web page as intended by following universal parsing rules.
- Maintainability: Keeping a standardized structure makes it easier for others (and oneself) to read, update, or manage the web page in the future.
- Error Prevention: Reduces rendering and compatibility errors, helping web pages display content correctly across devices.

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Question 2:
You're building a small personal profile page. Which HTML tags will you use to highlight your name as a heading, describe yourself in a paragraph, and emphasize a key skill?

Answer→
For building a small personal profile page and highlighting your name as a heading, describing yourself in a paragraph, and emphasizing a key skill, the following HTML tags can be used:

Use the h1 tag to highlight your name as a main heading, because h1 defines the most important heading on the page.

Use the p tag to describe yourself in a paragraph, as p is used for paragraphs and blocks of text.

Use the em tag to emphasize a key skill, which typically renders the text in italics to show importance or emphasis.

Example→

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Personal Profile</title>
</head>
<body>
    <h1>John Doe</h1>
    <p>Hello, I am a software developer with expertise in
<em>Python programming</em> and web development.</p>
</body>
</html>
```

Question 3:
Look at the code below. Can you find and fix the mistake?
```
<!-- This is an HTML comment
<h1>Welcome to my website</h1>
```

Answer→
 The mistake in your code is that the HTML comment is not correctly closed.
The heading <h1>Welcome to my website</h1> is still inside the comment and will not appear on the webpage because

everything within <!-- and the ending --> is treated as a comment and hidden.

Corrected Code
```
<!-- This is an HTML comment -->
<h1>Welcome to my website</h1>
```
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Question 4:
You're creating a form that asks the user to enter their name, select their country from a list, and click a button to submit. Write the HTML code for this.

Answer→
Here is the HTML code to create a form that asks the user to enter their name, select their country from a list, and click a button to submit:

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

<form>

  <label for="name">Name:</label>
  <input type="text" required>
  <label>Country:</label>
  <select required>
    <option value="">--Please choose an option--</option>
```

```html
      <option >India</option>
      <option >United States</option>
      <option >United Kingdom</option>
      <option >Canada</option>
      <option >Australia</option>
    </select>

  <button type="submit">Submit</button>
</form>
</body>
</html>
```

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Question 5:
Write short HTML code to show your favorite fruits in a bulleted list and your top 3 programming languages in a numbered list.

Answer→

Here is short HTML code to show favorite fruits in a bulleted (unordered) list and top 3 programming languages in a numbered (ordered) list:

```html
<!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>
   <!-- Unordered list for favorite fruits -->
<ul>
 <li>Mango</li>
 <li>Banana</li>
```

```html
  <li>Apple</li>
  <li>Orange</li>
</ul>

<!-- Ordered list for top 3 programming languages -->
<ol>
  <li>Python</li>
  <li>JavaScript</li>
  <li>Java</li>
</ol>

</body>
</html>
```

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Question 6:
Ravi wants to leave a note in his HTML file so that only other developers can see it, not the users on the website. How should he do this? Why are such notes useful?

Answer→

Ravi should leave a note in his HTML file using HTML comments. The syntax to create a comment is:

```html
<!-- This is a comment for developers -->
```

Everything between `<!--` and `-->` is ignored by the browser, so it will not appear on the website to users but will be visible in the source code for other developers.

Why HTML Comments Are Useful

1. They help document the code for clarity, explaining sections or logic to other developers or future self.

2. They allow temporarily hiding or disabling parts of the code without deleting it, useful for debugging or testing.

3. Comments improve collaboration by adding reminders or to-do notes for development tasks.

4. Using comments helps maintain clean, understandable, and manageable HTML files while keeping user-facing content unaffected.

Summary
Using HTML comments to leave notes is a best practice for maintaining understandable and manageable code while keeping the website clean for users.
These notes are crucial for development, debugging, and teamwork without affecting how the website appears on the browser.
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Question 7: Here's a form snippet. Can you spot the error and rewrite the correct version?

```
<form>
<input name="email">
<select>
<option>India</option>
</select>
<button>Send</buton>
</form>
```

Answer→
1. Identify the error

Carefully analyze the provided form snippet for common HTML form mistakes such as:

--> Missing closing tags

--> Incorrect attribute names

--> Misplaced elements

--> Incorrect nesting

--> Improper use of form control types

2. Explain the impact of the error

--> Discuss how the error affects the form functionality or user experience.

--> Explain why it is considered an error in HTML structure or form semantics.

3. Provide the correct code

--> Rewrite the corrected form code snippet with proper syntax and structure.

--> Add brief comments in the code to highlight important corrections.

4. Emphasize best practices

--> Label tags and inputs association

--> Use of required attributes for form validation

--> Accessibility considerations

--> Proper use of form action and method attributes

Here is the corrected version of your form:

```html
<html>
  <head>
    <title>HTML Basics</title>

  </head>
  <body>
  <form>
  <input name="email" type="email">
  <select>
    <option>India</option>
  </select>
  <button type="submit">Send</button>
</form>
</body>
</html>
```

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