

- a) What is the difference between a block-level and an inline-level element in HTML?
- b) Write an HTML code snippet that creates a form with a mandatory text input field and a submit button.
- c) Explain how `<canvas>` element works and provide a simple example of its usage.
- d) What is the `<iframe>` element? How it is different from `<embed>` and `<object>`?

Here are the responses to the questions in the image:

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### a) Difference between block-level and inline-level elements in HTML:

- **Block-level elements:**
    - Always start on a new line and take up the full width available.
    - Examples: `<div>`, `<p>`, `<h1>`, `<section>`, etc.
    - Used for structuring content (e.g., paragraphs, sections).
  - **Inline-level elements:**
    - Do not start on a new line and only take up as much width as necessary.
    - Examples: `<span>`, `<a>`, `<strong>`, `<em>`, etc.
    - Used for formatting text or content within a block.
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### b) HTML code snippet for a form with a mandatory text input field and a submit button:

```
<form action="/submit" method="post">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name" required>
  <button type="submit">Submit</button>
</form>
```

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### c) How `<canvas>` works and example:

- The `<canvas>` element is used to draw graphics (like charts, shapes, and animations) using JavaScript.

- It provides a 2D drawing context where developers can render visual content dynamically.

**Example:**

```
<canvas id="myCanvas" width="200" height="100" style="border:1px solid black;"></canvas>
<script>
  const canvas = document.getElementById('myCanvas');
  const ctx = canvas.getContext('2d');
  ctx.fillStyle = 'blue';
  ctx.fillRect(50, 20, 100, 50); // Draws a blue rectangle
</script>
```

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**d) What is the `<iframe>` element? Differences from `<embed>` and `<object>`:**

- **`<iframe>`:**
  - Embeds another HTML document within the current page.
  - Commonly used to embed external web pages, videos (e.g., YouTube), or ads.
- **Differences:**
  - **`<iframe>`:** Specifically for embedding HTML documents.
  - **`<embed>`:** Used for embedding external content like audio, video, or plugins (e.g., Flash).
  - **`<object>`:** A general-purpose container for embedding external resources like PDFs, Flash, or images.

**Example of `<iframe>`:**

```
<iframe src="https://www.example.com" width="600" height="400"
style="border:none;"></iframe>
```

- a) Distinguish between "padding" and "margin" area of CSS box model.
- b) What are the differences between GET and POST methods in form submitting? Give the case where we can use GET and where we can use POST methods.
- c) What does HTML stand for? Write the image tag required to link from the page *links.html* to the image *contact.jpg* when the files are organized as follows:
  - i. both in the same folder
  - ii. the *contact.jpg* is located in a subfolder called "*images*"
  - iii. the *links.html* page is located in a subfolder called "*otherfiles*"
- d) Write the differences between "id" and "class" attribute of an HTML element.

Here are the answers to the questions in the image:

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#### a) Distinction between "padding" and "margin" in the CSS box model:

- **Padding:**
    - Space between the content of an element and its border.
    - Affects the inner spacing of the element.
  - **Margin:**
    - Space outside the border, separating the element from other elements.
    - Affects the outer spacing of the element.
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#### b) Differences between GET and POST methods in form submission:

- **GET:**
  - Sends data as URL parameters (query string).
  - Data is visible in the URL and has a size limit.
  - Suitable for retrieving data (e.g., search queries).

Example:

```
<form action="/search" method="get">  
  <input type="text" name="query">  
  <button type="submit">Search</button>  
</form>
```

- **POST:**

- Sends data in the request body, not visible in the URL.
- Suitable for submitting sensitive or large data (e.g., login forms).

Example:

```
<form action="/submit" method="post">  
  <input type="text" name="username">  
  <button type="submit">Submit</button>  
</form>
```

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### c) What HTML stands for and image linking:

- **HTML:** HyperText Markup Language.

Image tags for linking **contact.jpg** from **links.html**:

i) **Both in the same folder:**

```

```

ii) **contact.jpg** in a subfolder named "images":

```

```

iii) **links.html** in "otherfiles":

```

```

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### d) Differences between **id** and **class** attributes:

- **id:**

- Uniquely identifies a single element on the page.
- Used for JavaScript and CSS targeting specific elements.

Example:

```
<div id="header">Header</div>
```

- **class:**

- Can be assigned to multiple elements.
- Used to group elements for styling or behavior.

Example:

```
<div class="content">Content 1</div>
```

```
<div class="content">Content 2</div>
```