HTML and CSS Notes

Basic Concepts

HTML:

1. **Headings** (`<h1>`, `<h2>`, etc.)

   - ***Definition:*** HTML heading tags define the structure of headings in a document, ranging from `<h1>` (most important) to `<h6>` (least important). They help organize content hierarchically for better readability and accessibility.

   - Example:

   ```html
   <h1>Main Heading</h1>

   <h2>Subheading</h2>

   <h3>Minor Heading</h3>
   ```

   - [Learn more about headings]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/Heading_Elements)

2. **Hyperlink** (`<a>`):

   - ***Definition:*** The `<a>` tag is used to create hyperlinks, enabling users to navigate to other pages, sections of the same page, or external resources.

   - ***Example:***

   ```html
   <a href="https://example.com">Visit Example</a>

   <a href="#section">Go to Section</a>
   ```

   - [Learn more about hyperlinks]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/a)

3. **Images** (`<img>`):

   - **Definition:** Embeds images into a webpage using the `src` attribute for the image URL and the `alt` attribute for accessibility.

   - Example:

   ```html

   <img src="image.jpg" alt="A beautiful scenery">

   ```

   - [Learn more about images]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/img)

4. **Favicons** (`<link>`):

   - *Definition*: Favicons are small icons representing a website, appearing in browser tabs, bookmarks, and address bars.

   - Example:

   ```html

   <link rel="icon" href="favicon.ico" type="image/x-icon">

   ```

   - [Learn more about favicons]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/link)

5. **Containers** (`<span>` and `<div>`):

   - *Definition:* `<span>` is an inline container for text or elements, while `<div>` is a block-level container for grouping content. Both are styled with CSS.

   - Example:

   ```html

   <span style="color: red;">Inline text</span>

```html
<div style="background: lightblue;">Block content</div>
```

- [Learn more about span and div]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element)

6. **Buttons** (`<button>`):

   - ***Definition***: Creates clickable buttons for user interaction, which can trigger events or submit forms.

   - Example:

```html
<button onclick="alert('Button clicked!')">Click Me</button>
```

   - [Learn more about buttons]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/button)

7. **Forms:**

   - ***Definition:*** Used to collect user input through various elements like text fields, checkboxes, and buttons, submitting data to a server.

   - Example:

```html
<form action="submit.php" method="POST">
    <label for="name">Name:</label>
    <input type="text" id="name" name="name">
    <button type="submit">Submit</button>
</form>
```

   - [Learn more about forms]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element/form)

8. **Header and Footer** (`<header>` and `<footer>`):

   - ***Definition***: Define semantic sections for the top and bottom of a webpage, typically containing navigation links, logos, and copyright information.

   - Example:

   ```html
   <header>

   <h1>Website Header</h1>

   </header>

   <footer>

   <p>&copy; 2024 My Website</p>

   </footer>
   ```

   - [Learn more about header and footer]

(https://developer.mozilla.org/en-US/docs/Web/HTML/Element)

CSS

1. **Colors:**

   - **Definition:** Used to define the color of text, backgrounds, borders, and other elements using names, HEX, RGB, or HSL values.

   - Example:

   ```css
   h1 {

   color: blue;

   }

   body {
   ```

```
    background-color: #f0f0f0;

  }
  ```

  - [Learn more about colors]

(https://developer.mozilla.org/en-US/docs/Web/CSS/color)

2. **<u>Fonts:</u>**

   - ***Definition:*** Control typography, including the font family, size, weight, and style.

   - Example:

   ```css
   p {

     font-family: Arial, sans-serif;

     font-size: 16px;

     font-weight: bold;

   }
   ```

   - [Learn more about fonts]

(https://developer.mozilla.org/en-US/docs/Web/CSS/font)

3. **<u>Borders:</u>**

   - ***Definition:*** Add outlines around elements, with customizable width, style, and color.

   - Example:

   ```css
   div {

     border: 2px solid black;

     border-radius: 10px;

   }
```

```
```

  - [Learn more about borders]
(https://developer.mozilla.org/en-US/docs/Web/CSS/border)

4. **<u>Margin:</u>**

   - ***Definition:*** Creates space outside an element's border, separating it from other elements.

   - Example:

   ```css
   div {
     margin: 20px;
   }
   ```

   - [Learn more about margin]
(https://developer.mozilla.org/en-US/docs/Web/CSS/margin)

5. **<u>Display:</u>**

   - ***Definition:*** Determines how an element is rendered, such as `block`, `inline`, or `flex`.

   - Example:

   ```css
   span {
     display: block;
   }
   ```

   - [Learn more about display]
(https://developer.mozilla.org/en-US/docs/Web/CSS/display)

6. Height and Width

   - *Definition*: Set the dimensions of an element in pixels, percentages, or other units.

   - Example:

   ```css
   div {
     width: 100px;
     height: 50px;
   }
   ```

   - [Learn more about height and width]
(https://developer.mozilla.org/en-US/docs/Web/CSS/height)

7. **Positions:**

   - *Definition:* Specifies the positioning method for elements, such as `static`, `relative`, `absolute`, or `fixed`.

   - Example:

   ```css
   div {
     position: absolute;
     top: 50px;
     left: 50px;
   }
   ```

   - [Learn more about positions]
(https://developer.mozilla.org/en-US/docs/Web/CSS/position)

8. **Background Images**

  - *Definition:* Sets an image as the background of an element, which can be repeated or positioned.

  - Example:

```css
body {
  background-image: url('background.jpg');
  background-size: cover;
}
```

  - [Learn more about background images]

(https://developer.mozilla.org/en-US/docs/Web/CSS/background-image)

9. **Flexbox**

  - *Definition*: A CSS layout model allowing elements to align and distribute space efficiently within a container.

  - Example:

```css
.container {
  display: flex;
  justify-content: center;
  align-items: center;
}
```

  - [Learn more about flexbox]

(https://developer.mozilla.org/en-US/docs/Web/CSS/flex)