

## Front-End Web Development Live Classes

### Day 02:

#### Introduction of HTML:

##### What is HTML?

- HTML (HyperText Markup Language) is the standard markup language used to create web pages.
- It provides the basic structure of a webpage by using a series of elements and tags.
- HTML elements are represented by tags such as `<p>` for paragraphs, `<h1>` to `<h6>` for headings, and `<a>` for hyperlinks.
- The structure of an HTML document includes `<!DOCTYPE html>`, `<html>`, `<head>`, and `<body>` tags.

##### What is Markup Language?

- A markup language uses a set of symbols or codes to define the structure and formatting of a document.
- It uses tags or brackets to encapsulate text, specifying how it should be displayed or structured.
- The primary purpose is to separate the content of a document from its formatting.
- Examples of markup languages include HTML, XML, and Markdown.
- Markup languages enable interoperability between different systems and applications.

##### What is HyperText?

- HyperText is text displayed on a computer or other electronic device with references (hyperlinks) to other text that the reader can immediately access.
- It allows users to navigate between different documents or parts of the same document by clicking on hyperlinks.
- HyperText is a fundamental concept of the World Wide Web, enabling the interconnected structure of web pages.
- It is typically written in HTML (HyperText Markup Language) and can include links to text, images, videos, and other media.
- HyperText enhances the user experience by providing a non-linear way to access information, making it easier to explore related topics and resources.

##### What is the basic structure of HTML?

#### 1. HTML Element:

- **<html>**: The root element that contains all other elements in the HTML document.
2. **Head Element:**
    - **<head>**: Contains meta-information about the document, such as its title and links to stylesheets and scripts.
  3. **Title Element:**
    - **<title>**: Sets the title of the document, which appears in the browser's title bar or tab.
  4. **Body Element:**
    - **<body>**: Contains the content of the document, such as text, images, and other elements that are displayed on the web page.

```
<html>
  <head>
    <title>First Class</title>
  </head>
  <body>
    <h1 style="color: red;">Hema Coding School</h1>
    <p>
      Welcome to the Hema coding school channel. <a
href="https://www.youtube.com/@HemaCodingSchool">YouTube Link</a>We can able to
      teach Front end web
      development. We can cover in this course HTML, CSS, JavaScript, React, Redux
    </p>
    
  </body>
</html>
```

What is the structure of HTML 5 ?

```
<!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>
  <p>Welcome
  <h2>Hema
```

```
<h4>Coding School</h4>
</h2>
</p>
</body>
</html>
```

## What is DOCTYPE?

- DOCTYPE (Document Type Declaration) is an instruction that tells the web browser about the version of HTML the page is written in.
- It is placed at the very top of an HTML document, before the `<html>` tag.
- The DOCTYPE declaration for HTML5 is `<!DOCTYPE html>`.
- It ensures that the web browser renders the page correctly according to the specified HTML version.
- An incorrect or missing DOCTYPE can cause browsers to render the page in "quirks mode," leading to inconsistent display across different browsers.

### HTML 1.0

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
```

### HTML 2.0

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
```

### HTML 3.2

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
```

### HTML 4.01 Strict

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
```

### HTML 4.01 Transitional

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
```

### HTML 4.01 Frameset

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
"http://www.w3.org/TR/html4/frameset.dtd">
```

### XHTML 1.0 Strict

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

### XHTML 1.0 Transitional

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

XHTML 1.0 Frameset

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```

HTML5

```
<!DOCTYPE html>
```

### what is a meta tag?

- A meta tag is an HTML element that provides metadata about the HTML document.
- It is placed inside the `<head>` section of the HTML document.
- Meta tags do not affect the visual appearance of the web page but are used to provide information to browsers and search engines.
- Common uses of meta tags include setting the character set (`<meta charset="UTF-8">`), providing a description (`<meta name="description" content="This is a description.">`), and setting viewport settings for responsive design (`<meta name="viewport" content="width=device-width, initial-scale=1.0">`).
- Meta tags can also be used for SEO purposes, specifying keywords, author information, and refresh rates for the page.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta name="description" content="A tutorial on how to use meta tags in HTML.">
  <meta name="keywords" content="HTML, meta tags, SEO, web development">
  <meta name="author" content="Jane Smith">
  <meta name="robots" content="index, follow">
  <title>Meta Tags Tutorial</title>
</head>
<body>
  <h1>Welcome to the Meta Tags Tutorial</h1>
  <p>This page provides information about using meta tags in HTML.</p>
</body>
</html>
```