



NextGen

Web



Session: 2

Introduction to HTML



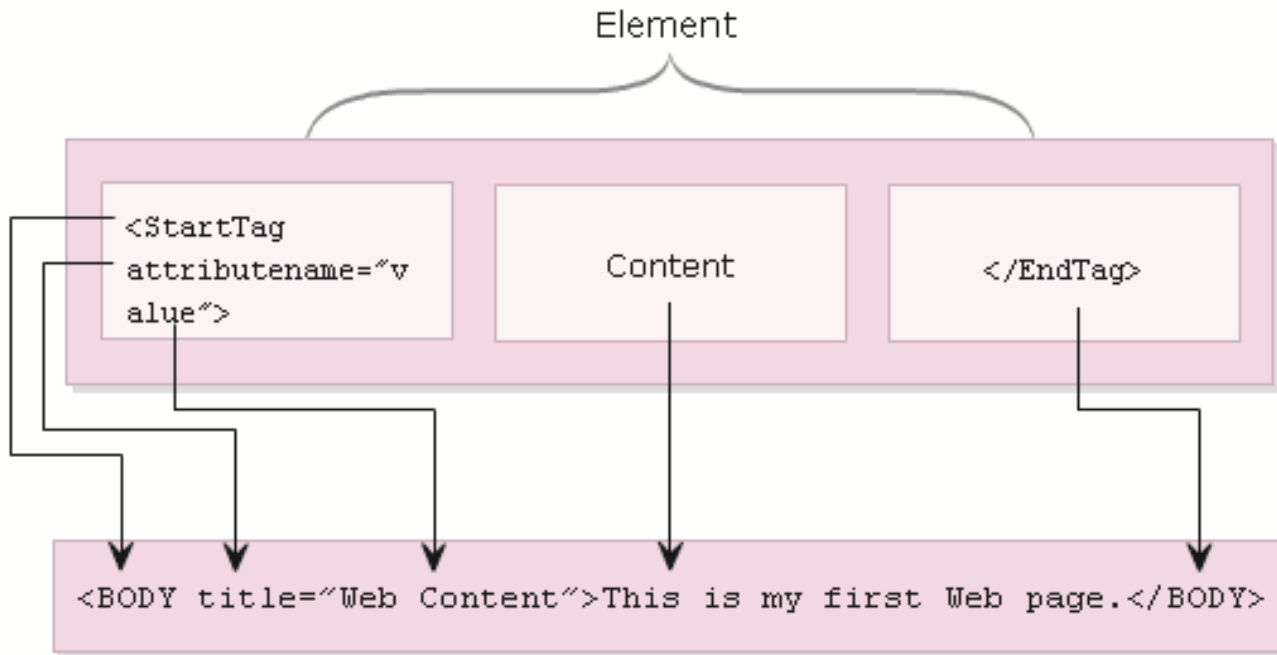
Objective

- Explain the elements constituting an HTML tag
- Describe DOCTYPE declarations
- Explain the basic tags in HTML
- List the different data types, attributes, and entities of HTML5
- Describe container and standalone tags
- Explain the role of HTML5 in Mobile devices

An HTML document is made up of different elements which specify its content and format.

- Each element consists of tag, attributes, and content. Tags denote the start and end of an HTML element.
- A start tag includes an opening angular bracket (<) followed by the element name, zero or more attributes, and a closing angular bracket (>).
- Attributes are name/value pairs that describe the element and content format.
- An end tag is written exactly as the start tag, but the forward slash (/) precedes the element name.

- Following figure shows an element in HTML tag.



- Informs the browser the HTML version number of your document.
- It is the first declaration in the HTML5 document before any other HTML code is written.
- Allows a browser to be more precise in the way it interprets and renders your pages.
- The new HTML5 DOCTYPE is as follows:
<!DOCTYPE html>



Basic Tags

1-6

- HTML is both a structural and presentational markup language.
- Structural markup specifies the structure of the content, while the presentational markup specifies the format.
- An HTML page is saved with the **.html** extension.
- The basic structure of an HTML document mainly consists of seven basic elements. These are as follows:

➤ HTML element

- is the root element that marks the beginning of an HTML document.
- contains the start and end tag : `<HTML>` and `</HTML>` respectively.
- is the largest container element as it contains various other elements.



➤ HEAD element

- provides information about the Web page such as keywords and language used.
- keywords are used by the search engines to identify the Web page with respect to the search criteria.

➤ TITLE element

- specifies the title of web page under the <TITLE> and </TITLE> tags.
- The title is displayed on the Title bar of the Web browser. The TITLE element is included within the HEAD element.



➤ META element

- used for displaying information about the data.
- used for specifying the charset or character encoding has been simplified: **<meta charset="utf-8" />**
UTF-8 is the most commonly used character coding that supports many alphabets.
- has several attributes for declaring the general information about the page. This information is not displayed in the browser.
- provides search engines, browsers, and web services with the information that is required to preview or acquire a summary of the relevant data of your document.

➤ LINK element

- is used to define the association between a document and an external resource.
- is used to link stylesheets. Its **type** attribute is used to specify the type of link such as 'text/css'.

<link type="text/css" rel="stylesheet" href="css.css">

- The type attribute is not included in HTML5, however.
- The reason is that CSS has been declared as the default and standard style for HTML5. So, the new link is as follows:

<link rel="stylesheet" href="css.css">



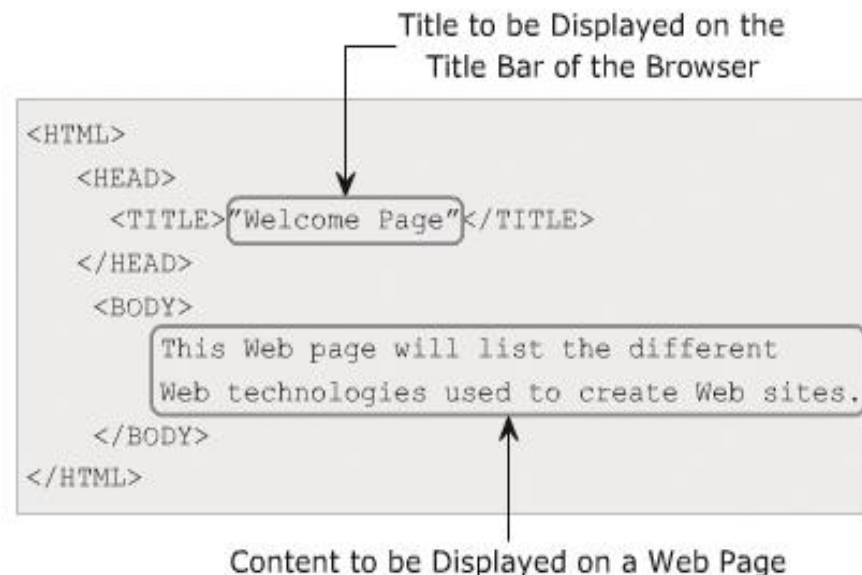
➤ SCRIPT element

- With HTML5, JavaScript is now the standard and default scripting language.
- The **type** attribute can be removed from the script tags.

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8" >
    <title> HTML Webinar </title>
    <link rel="stylesheet" href="first.css">
    <script src="first.js"> </script>
  </head>
</html>
```

➤ BODY element

- enables to add content on the Web page
- content can include text, hyperlinks, and images. It can be displayed by using various formatting options such as alignment, color, and background.





Data Types

- specify the type of value assigned to the attributes and the type of content that is to be displayed on the Web page.
- help in identifying the type of formatting such as color and length of data.

Data Type	Description
Text Strings	textual content, which is readable by the user.
Uniform Resource Identifiers (URIs)	the location of Web pages or network files.
Colors	the color to be applied to the content on the Web page.
Lengths	the spacing among HTML elements. Length values can be in Pixels, Length, or Multi Length. Pixels: the smallest dot on the screen.
Content Types	the type of content to be displayed on a Web page. Content types include 'text/html' for displaying text, 'image/gif' for displaying image, 'video/mpg' for displaying a video file.

- HTML attributes provide some meaning and context to the elements.
- Following table describes some of attributes used:

Attribute	Description
class	Specifies class names
contextmenu	Specifies the context menu for an element.
dir	Specifies the direction of the text present for the content.
draggable	Specifies the draggable function of an element.
dropzone	Specifies whether the data when dragged is copied, moved, or linked, when dropped.
style	Specifies the inline CSS style for an element.
title	Specifies additional information about the element.

HTML Entities

- Entities are special characters that are reserved in HTML.
- These entities can be displayed by using the following syntax:
&entity_name; or **&#entity_number;**
- Following table shows some of the commonly used HTML entities.

Output	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
€	euro	€	€
©	copyright	©	©



Container and Standalone Tags

- There are two types of HTML elements namely, container and standalone elements.
- A **container** element includes the start tag, contents, sub-elements, and end tag.
- All the basic HTML elements are container elements.
- A **standalone** element consists of the start tag and attributes followed by the end tag as `</>` without any content.



HTML5 and Mobile Devices

- HTML5 helps to create better and richer mobile applications by using APIs that support advanced Web application features for mobile browsers.
- New age smart phones with Apple iOS and Google Android support HTML5 compliant browsers.
- HTML5 tries to integrate all the features to deploy mobile apps that would be compatible in all the platforms.
- HTML5 provides features such as drag-and-drop functionality, video embedding in an application, and even offline capabilities.
- As HTML5 is compatible with most mobile operating systems, up to 30% of the cost for development for different operating systems is saved.



Benefits of HTML5 for Mobile Development

HTML5 has included APIs, hence additional plug-ins, third-party programs are not required.

Mobile development is easier as knowledge of only HTML5, CSS, and JavaScript is majorly required.

There is a rising growth of HTML5 for mobile applications due to its enhanced compatibility.

The HTML5 based mobile applications can run on browsers of Android, iOS, Blackberry, Windows Phone, and other mobile operating systems.

The development cost for creating applications in HTML5 is low.

Applications based on location and maps will have greater support in HTML5.

- An element organizes the content in a Web page hierarchically, which forms the basic HTML structure.
- The DOCTYPE tells the browser the type of your document.
- A data type specifies the type of value assigned to the attributes and the type of content that is to be displayed on the Web page.
- Entities are special characters that are reserved in HTML.
- A container element includes the start tag, contents, sub-elements, and the end tag.
- A standalone element consists of the start tag and attributes followed by the end tag as `</>` without any content.
- HTML5 provides features such as drag-and-drop functionality, video embedding in an application, and even offline capabilities for mobile devices.