



**HEXWARE**

**HTML**



# Course Objective

- To introduces the web application development using HTML 5, CSS3, JavaScript , XML, Type script and Angular
- To understand tags and API's Available in HTML 5 and new properties available in the CSS.
- To understand the implementation of XML tags.
- To develop UI component using Angular

# Learning material references

- HexaGuru+
  - Course detail
- Books
  - Henry F Korth, Abraham Silberschatz, “Database system concepts”, McGraw-Hill International editions, Computer Science Series...
  - ...
  - ..
- Web
  - URLs..

# Session Objective

- Introduction to HTML
- Basic Tags of HTML
- Elements and Attributes
- Link, List and Table
- Images and forms

# Markup Language

HTML is a markup language for describing web documents (web pages).

- HTML stands for Hyper Text Markup Language
- A **markup** language is a set of markup tags
- HTML documents are described by HTML tags
- Each HTML tag describes different document content

# User Interface

- HTML is used to structure the user interface.
- Presenting information through web browsers.
- Structure your text-based information
- Hyperlinks to reach other such documents.
- To Put images on your docs
- Basic structure for all web applications, like Guestbooks, Online Stores, Forums, Albums, social networking etc ...

- HTML5 is based on various design principles, spelled out in the WHATWG/W3C specification.
- Separation of presentation and content.
- Simplification and avoiding needless complexity.
- Native browser ability instead of complex JavaScript code or plugins
- Powerful yet simple HTML5 APIs





# Browser support for HTML

- Most of the browsers do not have full support for HTML5.
- However all major browsers like Safari, Chrome, Firefox, Opera, Internet Explorer etc continue to add new HTML5 features to their latest versions.
- The following browser versions have good support for most of the features of HTML5

<u>Browser</u>	<u>Version</u>
Chrome	25.0
Firefox	20.0
Opera	12.0
Safari	5.1
IE (least support)	9



# What HTML tags look like

A HTML tag looks like the following:

`<tagname [attributes] > Text that the tag effects </tagname>`

- The opening tag identifies that the text between the tags are affected by this tag.
- The text in between the tags is what is affected.
- The closing tag is used to identify that the effect of the tag is complete.

# HTML Basic structure

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Title of the document</title>
```

```
</head>
```

```
<body>
```

```
<p>Hello HTML5 page <p>
```

```
</body>
```

```
</html>
```

## The <!DOCTYPE> Declaration

- The <!DOCTYPE> declaration helps the browser to display a web page correctly.
- There are many different documents on the web, and a browser can only display an HTML page correctly if it knows the HTML version and type.
- The doctype declaration is not case sensitive. All cases are acceptable

## `<html></html>`

- The `<html></html>` tag is used to identify that the contents of the file is using the HTML language. This tag must be the first and last tags for every HTML file. If the tags are missing the browser will not be able to interpret the other tags within the file.

## `<head></head>`

- The `<head>` tag specifies that the lines within the two tags contain the prologue of the current HTML document. This basically means that the information within the `<head>` and `</head>` tags describes the details associated with the HTML document itself.

## `<title></title>`

- The `<title></title>` tags identifies the title of the web site. The title is displayed in the top left corner of the web browser. Each web page needs a unique title. It allows the users to quickly identify where on the web site they are.

## `<body></body>`

- The `<body> </body>` tags contains the rest of the web sites details. The body tag can contain as much information as needed. There is no limit to the amount of information a single web site can contain.



# HTML Headings

HTML headings are used to separate lines of text on your web page.

There are six different types of HTML heading tags:

`<h1></h1>`

`<h2></h2>`

`<h3></h3>`

`<h4></h4>`

`<h5></h5>`

`<h6></h6>`

Each of the heading tags will modify the contents of the tags. As an example: `<h1>Text Heading</h1>` will display the text "Text Heading" in a large font.

# HTML Text Formatting

HTML has a number of predefined tags that allow you to modify the text format.

Some of these text formatting tags are as follows:

- `<b></b>` Display text in bold
- `<i></i>` Display text in italics
- `<u></u>` Underline text
- `<s></s>` Strike through the text
- `<pre></pre>` Display the text as is.
- `<font></font>` Allows you to identify the font style, size and color

# HTML Lists

HTML offers two different types list tags. The tags differ in the way the lists are displayed the lists.

The `<ol><li></li></ol>` tag displays an ordered list:

- 1) One
- 2) Two
- 3) Three

The `<ul><li></li></ul>` tags display an unordered list like the following:

- \* One
- \* Two
- \* Three

# HTML Lists

You are able to modify HTML lists by using the “type” attribute. The type attribute can be added to the both the `<ol>` and `<ul>` tags:

**`<ol type='1 | a | A | i | I'></ol>`**

1 - Standard numbered list

a - Lowercase letters

A - Uppercase letters

i - Lowercase Roman numerals

I - Uppercase Roman numerals

**`<ul type='disc | square | circle'></ul>`**

disc - A disc or bullet

square - A square

circle - A circle

# HTML Comments

HTML comments are very important to any web site developer. Comments allows the developer of the web site to leave messages/instructions/information. When a web browser finds a comment in a HTML page it simply ignores it.

A HTML comment looks like the following:

```
<!-- This is a comment -->
```

# HTML Links <a> Tag

A web page can be linked to another web page in the current site or linked to another web site. The <a></a> tag will help to create the links. It is also known as anchor tag/hyperlink.

The <a></a> tags have the following structure:

```
<a href="page_to_link_to">Text identifying the link</a>
```

The most important attribute associated with the <a></a> tags is the 'href' attribute.

This attribute is what allows you to create the link. The text between the links is what is displayed on the web page. A link is normally displayed underlined.

# HTML - Other Uses of the <a> Tag

Like HTTP Protocol <a></a> tags also support a number of other protocols:

**mailto** – allows you to send an email from your web site.

```
<a href='mailto:email@address'>Send me an email</a>
```

**ftp** – allows you to connect directly to an FTP server so that you can copy files to and from the two machine.

```
<a href='ftp://ftp_server'>Connect to my FTP server</a>
```



# HTML - Images

- To put an image onto the web site <img> tag can be used.
- This tag is one of the few HTML tags that do not have a partner tag.
- The <img> tag has the attribute 'src'.
- The 'src' attribute identifies the location of the image you want to display on your web site.

The <img> tag has the following structure:

```

```

# HTML Tables

HTML tables are exactly like all other tables. They are made up from columns and rows.

	col1	col2	col3	col4
row1				
row2				
row2				

Each area within the table is know as a cell.

HTML specifies three tags that are associated with tables. These are as follows:

**<table></table>** - This is the outer most tags. The **<table></table>** tags contain all the information associated with the table including all the rows and columns.

# HTML Tables

`<tr></tr>` - This tags is used to create a table row.

`<td></td>` - Finally the `<td></td>` identify a table column. The 'td' in the tag stands for 'table data'.

# HTML - <table></table> attributes

The <table></table> tags have a number of attributes that are critical to understand.

**border** – This attribute indicates the thickness of the border to be displayed around the table. If this attribute is not set or is set to '0' then no border is displayed.

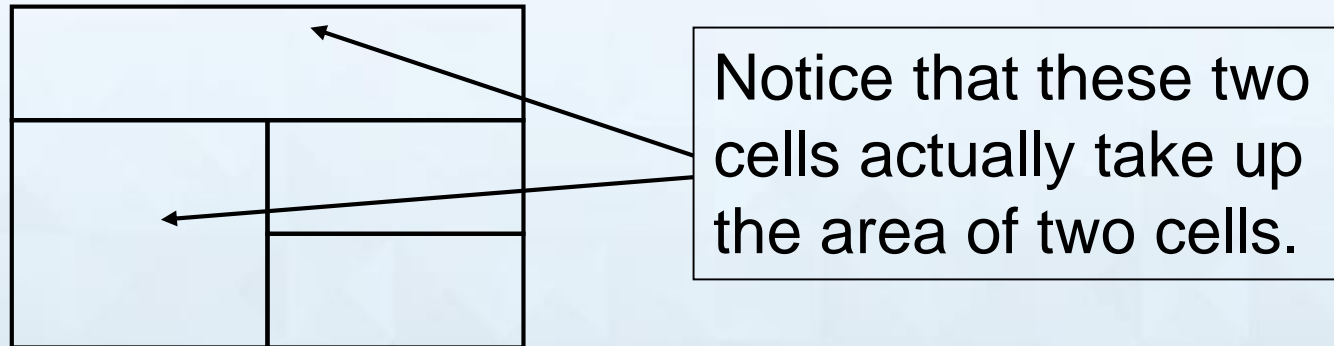
**width** – Identifies the amount of space that the table will take up. This can be represented as a percentage of the browser page or in number of pixels.

```
<table border='1' width='500'> rows and columns here </table>
```

The above statement will create a table that is 500 pixels in width. The table will also be displayed with a fine line around the edges of each cell.

# HTML - `<td></td>` attributes

The `<td>` tag has two very special attributes that are very handy when creating tables. Lets say that we want to create a table that looks something like this:



# HTML - `<td></td>` attributes

To create this effect we use the '**colspan**' and '**rowspan**' attributes associated with the `<td>` tag.

The attributes are used as follows:

```
<td colspan='number_of_columns_to_span'> cell data </td>
```

OR

```
<td rowspan='number_of_rows_to_span'> cell data </td>
```

# HTML Special Character

- HTML characters entities have special meaning to an Internet browser. As an example the ‘<’ and ‘>’ characters are represented as ‘&lt;’ and ‘&gt;’ respectively.
- If we did not use the character entity the browser would assume that the ‘<’ and ‘>’ characters are part of a HTML tag.
- The ‘&nbsp;’ special character represents a non-breaking space.



# HTML Forms

# HTML Forms

HTML forms are used to pass data to a server.

- An HTML form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

The `<form>` tag is used to create an HTML form

```
<form>
```

```
.
```

```
input elements
```

```
.
```

```
</form>
```

# HTML Forms

The `<form>` tag is used to create an HTML form for user input.

The `<form>` element can contain one or more of the following form elements:

- `<input>`
- `<textarea>`
- `<button>`
- `<select>`
- `<option>`
- `<optgroup>`
- `<fieldset>`
- `<label>`

# HTML Forms - Attributes

Attribute	Value	Description
accept-charset	character_set	Specifies the character encodings that are to be used for the form submission
action	URL	Specifies where to send the form-data when a form is submitted
autocomplete	on off	Specifies whether a form should have autocomplete on or off
enctype	application/x-www-form-urlencoded multipart/form-data text/plain	Specifies how the form-data should be encoded when submitting it to the server (only for method="post")
method	get post	Specifies the HTTP method to use when sending form-data
name	text	Specifies the name of a form
novalidate	novalidate	Specifies that the form should not be validated when submitted
target	_blank _self _parent _top	Specifies where to display the response that is received after submitting

## The Input Element

- The most important form element is the `<input>` element.
- The `<input>` element is used to select user information.
- An `<input>` element can vary in many ways, depending on the type attribute. An `<input>` element can be of type text field, checkbox, password, radio button, submit button, and more.

# HTML Forms - The Input Element

## Text Fields

`<input type="text">` defines a one-line input field that a user can enter text into.

Ex:

```
<form>
```

```
First name:< input type="text" name="firstname"><br>
```

```
Last name:< input type="text" name="lastname">
```

```
< /form>
```

# HTML Forms - The Input Element

## Password Field

`<input type="password">` defines a password field. The characters in a password field are masked (shown as asterisks or circles).

```
<form>
```

```
Password: <input type="password" name="pwd">
```

```
</form>
```



# HTML Forms - The Input Element

## Radio Buttons

`<input type="radio">` defines a radio button. Radio buttons let a user select **ONLY ONE** of a limited number of choices:

```
<form>
```

```
<input type="radio" name="sex" value="male">Male<br>
```

```
<input type="radio" name="sex" value="female">Female
```

```
</form>
```

# HTML Forms - The Input Element

## Checkboxes

`<input type="checkbox">` defines a checkbox. Checkboxes let a user select ZERO or MORE options of a limited number of choices.

```
<form>
```

```
<input type="checkbox" name="vehicle" value="Bike">I have a bike<br>
```

```
<input type="checkbox" name="vehicle" value="Car">I have a car
```

```
</form>
```

# HTML Forms - The Input Element

## Submit Button

`<input type="submit">` defines a submit button.

A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. The file defined in the action attribute usually does something with the received input:

```
<form name="input" action="demo_form_action.asp" method="get">
```

```
Username: <input type="text" name="user">
```

```
<input type="submit" value="Submit">
```

```
</form>
```

# HTML Forms - <textarea>

- The <textarea> tag defines a multi-line text input control.
- A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).
- The size of a text area can be specified by the cols and rows attributes, or even better; through CSS' height and width properties.

```
<textarea rows="4" cols="50">
```

At w3schools.com you will learn how to make a website. We offer free tutorials in all web development technologies.

```
</textarea>
```

# HTML Forms - <label>

- The <label> tag defines a label for an <input> element.
- The <label> element does not render as anything special for the user. However, it provides a usability improvement for mouse users, because if the user clicks on the text within the <label> element, it toggles the control.
- The for attribute of the <label> tag should be equal to the id attribute of the related element to bind them together.

```
<form action="demo_form.asp">  
  <label for="male">Male</label>  
  <input type="radio" name="sex" id="male" value="male"><br>  
  </label>  
</form>
```

# HTML Forms - <fieldset>

- The <fieldset> tag is used to group related elements in a form.
- The <fieldset> tag draws a box around the related elements.
- The <legend> tag defines a caption for the <fieldset> element.

```
<form>
```

```
  <fieldset>
```

```
    <legend>Personalia:</legend>
```

```
    Name: <input type="text"><br>
```

```
    Email: <input type="text"><br>
```

```
    Date of birth: <input type="text">
```

```
  </fieldset>
```

```
</form>
```

# HTML Forms - <select>

- The <select> element is used to create a drop-down list.
- The <option> tags inside the <select> element define the available options in the list.

```
<select>
```

```
<option value="volvo">Volvo</option>
```

```
<option value="saab">Saab</option>
```

```
<option value="mercedes">Mercedes</option>
```

```
<option value="audi">Audi</option>
```

```
</select>
```

# HTML Forms - <optgroup>

- The <optgroup> is used to group related options in a drop-down list.
- If you have a long list of options, groups of related options are easier to handle for a user.

```
<select>
  <optgroup label="Swedish Cars">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
  </optgroup>
  <optgroup label="German Cars">
    <option value="mercedes">Mercedes</option>
    <option value="audi">Audi</option>
  </optgroup>
</select>
```



# HTML Forms - <button>

- The <button> tag defines a clickable button.
- Inside a <button> element you can put content, like text or images. This is the difference between this element and buttons created with the <input> element.

```
<button type="button">Click Me!</button>
```

# HTML Forms - <datalist>

- The <datalist> tag specifies a list of pre-defined options for an <input> element.
- The <datalist> tag is used to provide an "autocomplete" feature on <input> elements. Users will see a drop-down list of pre-defined options as they input data.
- Use the <input> element's list attribute to bind it together with a <datalist> element.

# HTML Forms - <datalist>

Ex:

```
<input list="browsers">
```

```
<datalist id="browsers">
```

```
  <option value="Internet Explorer">
```

```
  <option value="Firefox">
```

```
  <option value="Chrome">
```

```
  <option value="Opera">
```

```
  <option value="Safari">
```

```
</datalist>
```

# Forms API in HTML5

- New Input types like search box, color & date chooser etc
- New attributes like Autocomplete, autofocus, spellcheck etc
- Support for Forms Validation

# Forms Input types

Type	Purpose
tel	Telephone number
email	Email address text field
url	Web location URL
search	Term to supply to a search engine
range	Numeric selector within a range of values
number	A field containing a numeric value only
color	Color selector
date	Date picker
progress	Progress bar

# Form Input Types

- input type=tel
  - The input element with a type attribute whose value is "tel" represents a one-line plain-text edit control for entering a telephone number.
  - Syntax
    - `<input type="tel" name="some-name"/>`
  - Ex
    - `<input type="tel" id="phone" pattern="([0-9]{3}) [0-9]{3}-[0-9]{4}>`

# Form Input Types

- input type=email
  - The input element with a type attribute whose value is "email" represents a control for editing a list of e-mail addresses given in the element's value.
  - Ex  
`input type="email" pattern="^[^ @]*@[^ @]*" value="">`

# Form Input Types

- input type=url
  - The input element with a type attribute whose value is "url" represents a control for editing an absolute URL given in the element's value.
  - Ex  
`<input type="url" value="">`



# Form Input Types

- input type=search
  - The input element with a type attribute whose value is "search" represents a one-line plain-text edit control for entering one or more search terms.
  - Ex  
`<input type="search">`
  -

# Form Input Types

- input type=range
  - The input element with a type attribute whose value is "range" represents an imprecise control for setting the element's value to a string representing a number.
  - Ex  
`<input id="slider1" type="range" min="100" max="500" step="10" />`

# Form Input Types

- input type=number
  - The input element with a type attribute whose value is "number" represents a precise control for setting the element's value to a string representing a number.
  - Ex  
`<input id="user_lic" type="number" min="5" max="30" step="5" value="5"/>`

# Form Input Types

- input type=week
  - The input element with a type attribute whose value is "week" represents a control for setting the element's value to a string representing a week.
  - Ex  
`<input name="w" type="week">`

# Form Input Types

- Input Type = month
  - The input element with a type attribute whose value is “month” allows the user to select a month and year..
  - Ex  
`<input type="month" name="bdaymonth">`

# Form Input Types

- input type=datetime
  - The input element with a type attribute whose value is "datetime" represents a control for setting the element's value to a string representing a global date and time (with timezone information).
  - Ex

```
<input type="datetime" name="dt">
```

```
<input type="datetime-local" name="dtl" step="7200">
```

# Form Input Types

- input type=date
  - The input element with a type attribute whose value is "date" represents a control for setting the element's value to a string representing a date.

– Ex

```
<input type="date" value="2011-06-01"/>
```

```
<input type="date" name="d" min="2011-08-01" max="2011-08-15">
```

# Form Input Types

- Input Type = color
  - The color type is used for input fields that should contain a color.
  - Ex  
`<input type="color" name="favcolor">`



# Model websites



The image shows a screenshot of the Amazon India homepage. At the top, there's a navigation bar with the Amazon.in logo, a search bar, and links for 'KALANK', 'Join Prime for ₹129/month', and user account options. Below the navigation bar, there's a large promotional banner for the LG W Series smartphone, featuring the text 'TWO IS OUT. THREE IS IN.' and '3+32 GB | Starting ₹8,999'. A blue cloud-shaped callout bubble is overlaid on the right side of the banner, containing the text 'Develop a shopping cart website based on the model website'. Below the banner, there are four white boxes with promotional offers: 'Under ₹400 | Free delivery' with images of men's and women's fashion; 'Get 20% Cashback\* on Pr...' with an image of a shopping basket; 'Recharges, bills & food' with icons for mobile recharges and bills; and 'Sign in for your best experience' with a 'Sign in securely' button.

amazon.in  
Try Prime

Deliver to  
Chennai 600001

Shop by  
Category

Your Amazon.in Today's Deals Amazon Pay Sell Customer Service

KALANK

Join Prime for ₹129/month  
\*Redirects to PrimeVideo.com

Hello, Sign in  
Account & Lists

Returns & Orders

Try Prime

Cart

TWO IS OUT.  
THREE IS IN.

3+32 GB | Starting ₹8,999

Next sale on 10<sup>th</sup> July

Triple AI Camera | 4000 mAh Battery

YES BANK

10% Instant Discount\* on  
YES BANK Credit Card EMI

\*T&C apply

LG W Series

Develop a shopping cart website based on the model website

Under ₹400 | Free delivery

Men's fashion

Women's fashion

Get 20% Cashback\* on Pr...

Recharges, bills & food

Mobile recharges

Bills

Sign in for your best experience

Sign in securely



*Innovative Services*

*Passionate Employees*

*Delighted Customers*

*Thank you*

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