

HTML 5

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Module 1: HTML Basics

- Introduction
- Tags
- Page Structure
- Head & Body Section
- Quiz!

Introduction

- HTML is short for Hyper Text Markup Language.
 - Hypertext is a text that provides link to other text.
 - A markup language is a computer language that uses tags to define elements within a document.

Tags

- HTML is written in the forms of “tags” that are surrounded by angle brackets.
- HTML tags are keywords
- HTML tags generally comes in pairs like `<html>` and `</html>`
- The first tag is known as start tag or the opening tag, while the second tag is known as end tag or closing tag.

Page structure

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta charset="UTF-8">
```

```
    <title>First demo HTML</title>
```

```
  </head>
```

```
  <body>
```

```
    <h1>This is my first HTML page!!</h1>
```

```
  </body>
```

```
</html>
```

Page structure

- All normal web pages consist of a head and a body.
 - Head
 - The head is used for text and tags that do not show directly on the page.
 - Body
 - The body is used for text and tags that are shown directly on the page.
- Finally, all web pages have an `<html>` tag at the beginning and the end, telling the browser where the document starts and where it stops.

Head & body section

Type the following code in notepad

```
<html>  
    <head>  
        <title>First Page</title>  
    </head>  
    <body>  
        My First Web Page  
    </body>  
</html>
```

Save this file with extension .html like
“First.html”

Quiz

- HTML is short for ?
 - Answer: Hyper Text Markup Language
- WYSIWYG stands for ?
 - Answer: What You See Is What You Get
- All HTML tags are enclosed in what ?
 - Answer: < and >
- Tags and text that do not show directly on the page are placed where ?
 - Answer: Head
- The <title> tag belongs where in your HTML
 - Answer: Head
- Which program do you need to write HTML?
 - Answer: Any text editor

Quiz

- All normal web pages consist of what two parts ?
 - Answer: Head and body
- What tag tells the browser where the page starts and stops ?
 - Answer: `<html>`
- Which of the following will NOT be found in the `<head>` section ? `<script>`, `<table>`, `<title>`
 - Answer: Table
- Which section is used for text and tags that are shown directly on your web page ?
 - Answer: Body

Module 2: HTML text

- Base font
- Font
- Text Links
- Text Format
- Text Size
- Text Layout
- Quiz!

Font

- The `` tag will change the font.

```
– <html>
  <head>
    <title>My Page</title>
  </head>

  <body>
    Hello! This is my page.<br><br>
    <font color="red" face="arial" size="2">
      This local text looks different.
    </font><br><br>
    This text looks like the first line.
  </body>
</html>
```

Text links

- The tags used to produce links are the `<a>` and ``.

```
<a href="http://www.yahoo.com">here</a> to go to yahoo.
```

- You simply:
 - Specify the target in the ``.
 - Then add the text that should work as a link.
 - Finally add an `` tag to indicate where the link ends.

Text format

<code>text</code> <code>text</code>	writes text as bold
<code><i>text</i></code> <code>text</code>	writes text in italics
<code><u>text</u></code>	writes underlined text
<code><sub>text</sub></code>	lowers text and makes it smaller
<code><sup>text</sup></code>	lifts text and makes it smaller
<code><strike>text</strike></code>	strikes a line through the text
<code><pre>text</pre></code>	writes text exactly as it is, including spaces & new line.

Text size

<code><big>text</big></code>	increase the size by one
<code><small>text</small></code>	decrease the size by one
<code><h1>text</h1></code>	writes text in biggest heading
<code><h6>text</h6></code>	writes text in smallest heading
<code>text</code>	writes text in smallest font size. (8 pt)
<code> text </code>	writes text in biggest font size (36 pt)

Text layout

HTML	EXPLANATION
<code><p>text</p></code>	Adds a paragraph break after the text.
<code><p align="left">text</p></code>	Left justify text in paragraph.
<code><p align="center">text</p></code>	Center text in paragraph.
<code><p align="right">text</p></code>	Right justify text in paragraph.
<code>text
</code>	Adds a single line break where the tag is.
<code><nobr>text</nobr></code>	Turns off automatic line breaks - even if text is wider than the window.
<code><center>text</center></code>	Center text.
<code><div align="center">text</div></code>	Center text.
<code><div align="left">text</div></code>	Left justify text.
<code><div align="right">text</div></code>	Right justify text.

Quiz

- **The attribute used to choose the type of font in HTML is ?**
 - Answer: Face
- **<a> and are the tags used for ?**
 - Answer: Adding links to your page
- **The <i> tag makes text... ?**
 - Answer: Italic
- **The <small> and <big> tags are special in what way ?**
 - Answer: They can be repeated
- **The
 tag adds what to your webpage ?**
 - Answer: Line break

Quiz

- What tag adds a paragraph break after the text ?
 - Answer: <P>
- Besides , another way to make text bold is what ?
 - Answer:

Module 3: HTML Lists

- Introduction
- Bulleted Lists
- Numbered Lists
- Quiz!

Introduction

- To create a bulleted list you need to add a `` and a `` tag at the beginning and the end of the list.
- Numbered lists have `` tags instead of `` tags.
- To separate single list items use `` and `` tags.
- There are special settings that you can use to customize the lists on your page.
- On the following two pages you can learn in detail about bulleted and numbered lists.

Bulleted lists

HTML-CODE	EXPLANATION / EXAMPLE
<pre> text text text </pre>	Makes a bulleted list using the default bullet type: <ul style="list-style-type: none">•Text•Text•Text
<pre><ul type="disc"></pre>	Starts a bulleted list using discs as bullets: <ul style="list-style-type: none">•This is one line•This is another line•And this is the final line
<pre><ul type="circle"></pre>	Starts a bulleted list using circles as bullets: <ul style="list-style-type: none">○This is one line○This is another line○And this is the final line
<pre><ul type="square"></pre>	Starts a bulleted list using squares as bullets: <ul style="list-style-type: none">■This is one line■This is another line■And this is the final line

Numbered lists

HTML-CODE	EXPLANATION / EXAMPLE
<pre> text text <ol type="1"></pre>	Makes a numbered list using the default number type: <ol style="list-style-type: none">1. Text2. Text
<pre><ol start="5"></pre>	Starts a numbered list, first # being 5. <ol style="list-style-type: none">5. This is one line6. This is another line7. And this is the final line
<pre><ol type="A"></pre>	Starts a numbered list, using capital letters. <ol style="list-style-type: none">A. This is one lineB. This is another lineC. And this is the final line
<pre><ol type="a"></pre>	Starts a numbered list, using small letters. <ol style="list-style-type: none">a. This is one lineb. This is another linec. And this is the final line

Numbered lists continue...

HTML-CODE	EXPLANATION / EXAMPLE
<code><ol type="I"></code>	Starts a numbered list, using capital roman numbers. I. This is one line II. This is another line III. And this is the final line
<code><ol type="i"></code>	Starts a numbered list, using small roman numbers. i. This is one line ii. This is another line iii. And this is the final line
<code><ol type="I" start="7"></code>	An example of how type and start can be combined. VII. This is one line VIII. This is another line IX. And this is the final line

Editable list

```
<ul type="square" contenteditable="true">  
  <li>Delhi</li>  
  <li>Mumbai</li>  
  <li>Pune</li>  
</ul>
```

```
<ol type="1" contenteditable="true">  
  <li>Delhi</li>  
  <li>Mumbai</li>  
  <li>Pune</li>  
</ol>
```


Quiz

- To separate single list items use ?
 - Answer: `` and ``
- When making bulleted lists you have what options ?
 - Answer: disc, circle, square
- To start a numbered list with regular numerals use ?
 - Answer: `<ol type="1">`
- To create a bulleted list use ?
 - Answer: ``
- To create a numbered list use ?
 - Answer: ``
- To start a list using circles use which of these tags ?
 - Answer: `<ul type="circle">`

Quiz

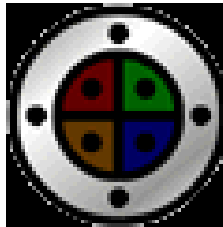
- **To start a list at the count of 3, use which ?**
 - Answer: `<ol start="3">`
- **To create a list using lowercase letters use ?**
 - Answer: `<ol type="a">`
- **One should never combine the "start" and "type" option True or False?**
 - Answer: False
- **`` tags will create what kind of list ?**
 - Answer: Numbered List

Module 4: HTML Images

- Inserting In Html
- Resizing
- Border Around
- Alternative Text
- Spacing Around
- Alignment Of Text
- Wraparound
- Quiz!

Inserting IN HTML

- The tag used to insert an image is called img.
- Below you see an image called "rainbow.gif".



- HTML code used to insert the image on this webpage:

```
•
```

- If the image is stored in the same folder as the HTML page, you can leave out and simply insert the image with this code:

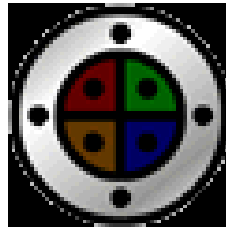
```

```

Resizing

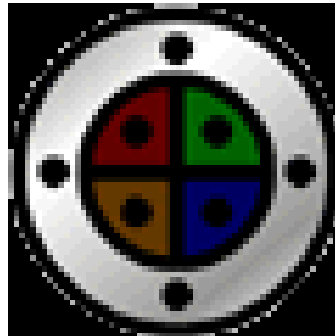
```

```



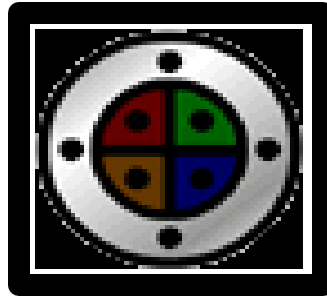
```

```



Border around

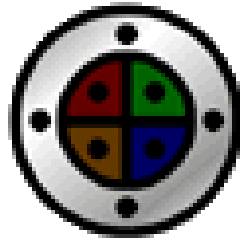
- You can add a border to the image using the border setting shown in the example below:



```
•<img src= C:/html/img/rainbow.gif border="5">
```

Alternative text

- You can add an alternative text to an image using the alt setting shown in the example below:



```

```

Image caption

Consider the following mark-up for an image:

```

```

```
<p>Image of Mars. </p>
```

There unfortunately isn't any easy or semantic way to associate the caption, wrapped in a paragraph tag, with the image element itself.

HTML5 rectifies this, with the introduction of the `<figure>` element. When combined with the `<figcaption>` element, we can now semantically associate captions with their image counterparts.

```
<figure>
```

```
  
```

```
  <figcaption>
```

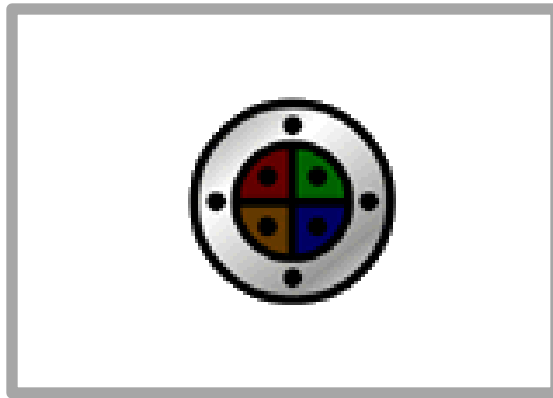
```
    <p>This is an image of something interesting. </p>
```

```
  </figcaption>
```

```
</figure>
```


SPACING AROUND

- You can easily add space over and under your images with the Vspace attribute.
- In a similar way you can add space to the left and right of the image using the Hspace attribute.





```

```

Wrap text around

- Images can be aligned horizontally. For this, add align="left" or align="right" to the tag.
- Consider these examples to see how it works:

HTML-CODE	EXAMPLE
<pre> bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla</pre>	 bla bla bla bla bla blabla bla
<pre> bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla</pre>	bla bla bla bla bla blabla 

Quiz

- Gif and jpg are the two main types of what ?
 - Answer: images
- Banners, buttons, dividers, clipart and other simple images usually work best as ?
 - Answer: gif
- Which format usually works best for photos ?
 - Answer: JPG
- To change the size of an image in HTML use what ?
 - Answer: height and width
- Which tag is used to insert images into your web page ?
 - Answer: img

Quiz

- Why should you add alternative text to your images ?
 - answer: So the users can get an idea of what the image is before it loads
- Adding a border to your image helps the visitor to recognize it as what ?
 - answer: A Link
- Using Hspace will add what to your image ?
 - answer: Space to the left and right

Module 5: HTML Links

- Introduction
- How To Make A Link
- Colors On Text Links
- Link Targets
- No Underline
- Advanced Text Links
- Image Links
- Image mapping
- Link Within A Page
- Links In Framesets
- Link To New Window
- Link To Email
- Quiz!

Introduction

- Links are the most fundamental part of the world wide web.
It is the links that tie it all together.
- There are three different kinds of links you can have on your website:
 - Links to anchors on the current page (Internal).
 - Links to other pages within the current site (Local)
 - Links to pages outside the current site (Global).

How to make a link

- The tags used to produce links are the `<a>` and ``
- The example below shows how to make the word here work as a link to yahoo.

Click `here` to go to yahoo.

- You simply:
 - Specify the target in the ``.
 - Then add the text that should work as a link.
 - Finally add an `` tag to indicate where the link ends.

Colors on text links

- There are a few settings that can be useful for controlling the colors of text links.
- This page will teach you how to:
 - Define colors for all links on the page.
 - Define colors for individual links on the page.

Define colors for all links on the page

- The general color of text links is specified in the `<body>` tag, like in the example below:

```
<body link="#C0C0C0" vlink="#808080">
```

- link - standard link - to a page the visitor hasn't been to yet. (standard color is blue - #0000FF).
- vlink - visited link - to a page the visitor has been to before. (standard color is purple - #800080).

Define colors for individual links on the page

- The first technique would look like this:

```
Click <a href="http://www.yahoo.com"><font color="FF00CC"> Click</font></a> Yahoo.
```

- The second technique would look like this:

```
•Click <a href="http://www.yahoo.com" style="color: rgb(0,255,0)"> here</a> to go to yahoo.
```

Link targets

- By default, links will open in the current window or frame.
- You need to add a target if you want the link to open in another window or frame than the link itself is placed in.
- This example will open yahoo in a new window:

```
•<a href="http://www.yahoo.com" target="_blank">
```

– Predefined targets are:

- `_blank` loads the page into a new browser window.
- `_self` loads in the same frame as it was clicked.
- `_parent` loads the page into the frame that is superior to the frame the hyperlink is in.
- `_top` cancels all frames, and loads in full browser window.

Hyperlink with No underline

- ```
<html>
 <head>
 <title>This is my page</title>
 <style type="text/css">
 <!-- A{text-decoration:none} -->
 </style>
 </head>

 <body>
 Welcome to my world!

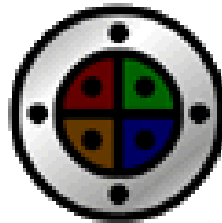
 This Link To Yahoo has
 no underline
 </body>

</html>
```

# Advanced text links

- ```
<html>
  <head>
    <title>This is my page</title>
    <style type="text/css">
      <!--
        A:link {text-decoration: none}
        A:visited {text-decoration: none}
        A:active {text-decoration: none}
        A:hover {text-decoration: underline}
      -->
    </style>
  </head>
  <body>
    Welcome to my world!<br>
    <a href="http://www.yahoo.com">This Link To Yahoo has
    no underline</a>
  </body>
</html>
```

Image links



```
<a href="myfile.htm"></a>
```

Image mapping

- It is possible to make one image link to several pages, depending on where the image is clicked.
- This technique is called image-mapping.

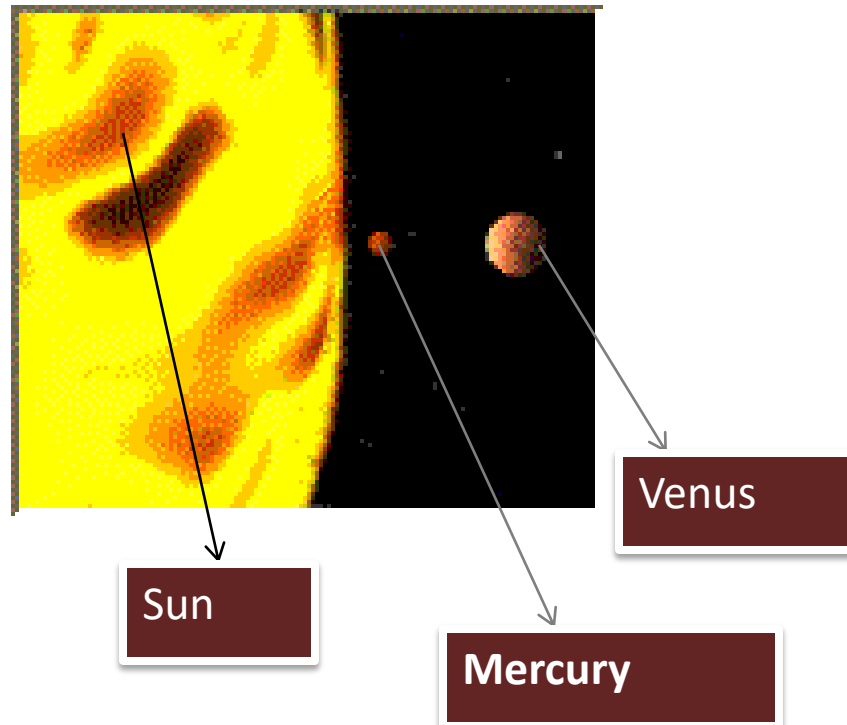


Image mapping

```

```

```
<map id="planetmap" name="planetmap">
```

```
<area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.html">
```

```
<area shape="circle" coords="90,58,3" alt="Mercury"  
href="mercury.html">
```

```
<area shape="circle" coords="124,58,8" alt="Venus"  
href="venus.html">
```

```
</map>
```

```
</img>
```


Link within a page

- Linking to anchors is very similar to normal links. Normal links always point to the top of a page. Anchors point to a place within a page.
- A # in front of a link location specifies that the link is pointing to an anchor on a page. (Anchor meaning a specific place in the middle of your page).
- To link to an anchor you need to:

- **Create a link pointing to the anchor**

```
<a name="chapter4"></a>
```

- **Create the anchor itself.**

```
Click <a href="#chapter4">here</a> to read chapter 4.
```

Link to new window

- If you want your link to open a page in a new window use the target="_blank" in the <a href> tag.
- Targeting the link to "_blank" simply opens a new browser window that will load the linked page.
- Traditional way

```
•<a href="http://www.yahoo.com">Go to Yahoo</a>
```

- add a target="_blank",

```
<a href="http://www.yahoo.com" target="_blank"> Yahoo</a>
```

LINK TO EMAIL

- Having a link that allows visitors to send email from your website can be a great addition to your site, making it easy for your visitors to send questions or comments.

```
•<a href="mailto:youremailaddress">Email Me</a>
```

With Subject :

```
<a href="mailto:email@echoecho.com?subject=SweetWords">  
Send Email</a>
```

- With Body :

```
<a href="mailto:email@echoecho.com?body=Please send me a copy of your new  
program!">Send Email</a>
```

Quiz

- Is it possible to link within the current page Yes or No?
 - Answer: Yes
- What tag tells where a link starts ?
 - Answer: <a>
- What does vlink mean ?
 - Answer: visited link
- When images are used as links they get a blue border.
 - Answer: Unless border is set to zero.
- Image-links can show a text label if you add which property?
 - Answer: alt

QUIZ

- Defining clickable sub-areas on an image is called?
 - Answer: `imagemapping`
- Which property will open a page in a new window?
 - Answer: `target="_blank"`
- To set the font for a single link, where do you add the `` tags ?
 - Answer: Inside the `<a>` and `` tags
- How do you add a link which will allow the visitor to send an email from your page ?
 - Answer: Add ``

Module 6: HTML Backgrounds

- Introduction
- Background Color
- Background Image
- Fixed Image
- Quiz!

Introduction

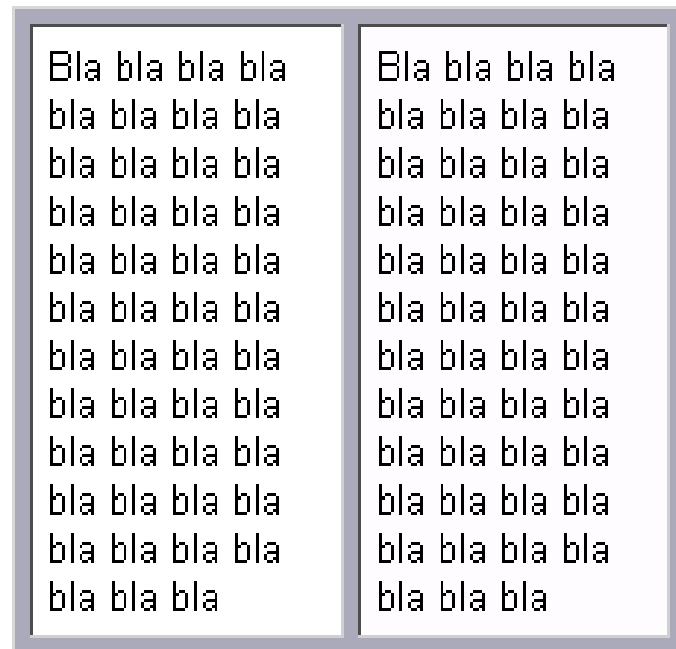
- When deciding whether you want to use a plain color or an image you should consider the fact that very few of the web's 100 most visited sites use background images.
- More than 90 percent have a plain white background.
- The few pages that actually do use images use very discrete and fast loading images for the purpose.

Background color

- Adding a plain background color to your page is easy.

```
<body bgcolor="#FF0000">
```

- All you need to do is add a bgcolor property to the body tag:



Background image

- Add Background as Image

```
•<body background="drkrainbow.gif">
```

- When you choose to use a background image for the page it is always a good idea to specify a background color as well.

```
<body background="drkrainbow.gif" bgcolor="#333333">
```

Quiz

- Which tag can set the background color for your page?
 - Answer: `<body>`
- More than 90 percent of the top 100 sites on the web have what ?
 - Answer: White backgrounds

Quiz

- Why do designers often use slight variations of black and white as background colors ?
 - Answer: To make the page more readable
- If the background image is smaller than the screen, what will happen ?
 - Answer: It will be repeated
- Why should you specify a background color if you are using an image for the actual background of your page ?
 - Answer: The background color will be shown until the image loads

Module 7: HTML Tables

- Introduction
- Basic Tags
- Table Tags
- Row/Cell Tags
- Quiz!

Introduction

- Tables are used on websites for two major purposes:
 - The obvious purpose of arranging information in a table.
 - The less obvious - but more widely used - purpose of creating a page layout with the use of hidden tables.

Basic tables

- Tables are defined with the <table> tag.
- To insert a table on your page you simply add these tags where you want the table to occur:

```
<table> ...</table>
```

- The above table would be of no use since it has no rows and no columns.

Rows

- To add rows to your table use the `<tr>` and `</tr>` tags.

Example:

```
<table>  
    <tr></tr>  
    <tr></tr>  
    <tr></tr>  
    <tr></tr>  
</table>
```

Columns

- You can divide rows into columns with `<td>` and `</td>` tags:

Example:

```
<table> <tr>
  <td>This is row 1, left side.</td>
  <td>This is row 1, right side.</td>
</tr>
<tr>
  <td>This is row 2, left side.</td>
  <td>This is row 2, right side.</td>
</tr> </table>
```


Table tags

Property	Description
align= left center right	left align table center table right align table
background=filename	image inserted behind the table
bgcolor=#rrggbb	background color
border=n	border thickness
bordercolor=#rrggbb	border color
cellpadding=n	distance between cell and content
cellspacing=n	space between cells

Table tags Continue...

Property	Description
frame= void, above, below, lhs, rhs, hsides, vsides, box	removes all outer borders shows border on top of table shows border on bottom of table shows border on left side of table shows border on right side of table shows border on both horizontal sides shows border on both vertical sides shows border on all sides of table
valign= top bottom	aligns content to top of cells aligns content to bottom of cells
width= n,n n,n%	minimum width of table in pixels minimum width in percentage of window size

Row/cell tags

PROPERTY	DESCRIPTION
align= left right center	aligns content to the left of cells aligns content to the right of cells aligns content to the center of the cells
background=filename	sets a background image for the cells
bgcolor=#rrggbb	sets a background color for the cells
bordercolor=#rrggbb	sets color for the border of cells
bordercolordark=#rrggbb	sets color for the border shadow of cells
valign= top middle bottom	aligns to the top of cells aligns to the middle of the cells aligns to the bottom of cells
Width/Height= n n%	specify a min width/Height for the cells in pixels specify a min width/Height for the cells in percent of the table width

Quiz

- To add rows to your tables use which tags?
 - Answer: `<tr>` and `</tr>`
- Use `<td>` and `</td>` to add what to your tables?
 - Answer: columns
- `colspan=n` can be added to only what tag?
 - Answer: `<td>`
- To set the color for table borders use _____.
 - Answer: `bordercolor=#003300`
- Increasing the cellpadding value will what ?
 - answer: Increase the distance between cell and content
- When is the content of a table shown ?
 - Answer: After the table is loaded

Quiz

- Which has higher priority, cell settings or table settings ?
 - answer: Cell settings
- Settings for columns(<td> tag) have higher priority than settings for rows(<tr> tag) True or False.
 - answer: True
- Which property tells how many rows a cell should span ?
 - Answer: rowspan=n
- What tag is used to add columns to tables ?
 - Answer: <td>

Module 8: HTML IFrames

- Introduction
- Basic Example
- Attributes

Introduction

- Iframes, or inline frames, allow you to load separate HTML files into an existing document.
- Iframes can be placed anywhere in the document flow.
- CSS and JavaScript can be used to manipulate the appearance and properties of the iframe element.. i.e. its position, size, src etc.
- The document loaded into the iframe does not inherit styles from the containing document.

Basic example

```
<body>
```

```
  <div>
```

```
    <iframe src="02_font.html" width="450"  
height="150"></iframe>
```

```
    <iframe src="08_images.html" width="220"  
height="220"></iframe>
```

```
  </div>
```

```
</body>
```

This is my custom
font HTML page!!



Attributes of <iframe>

Attribute	Value	Description
name	name	Mentions the name of iframe.
height	pixels	Denotes the height level of iframe.
width	pixels	Denotes the width level of iframe.
src	url	The address/URL of the content to be fixed in iframe.
sandbox	"" , allow-forms, allow-same-origin, allow-scripts, allow-top-navigation	Creates limitations for iframe contents.
seamless	seamless	Defines that iframe should look like the part of the containing document.
srcdoc	HTML_code	The HTML content of a page to be shown in iframe.

Module 9: HTML Forms

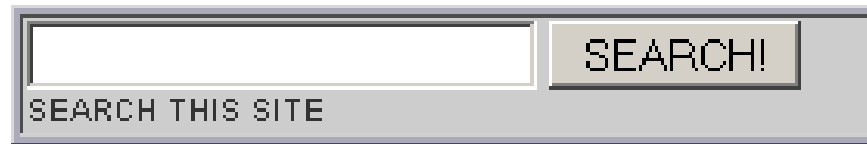
- Introduction
- Examples
- The Form Tag
- Form Fields
 - Text
 - Password
 - Hidden
 - Text Area
 - Check Box
 - Radio Button
 - Drop-down Menu
 - Submit Button
 - Reset Button
 - Image Button
- Quiz!

Introduction

- A form is simply an area that can contain form fields.
- Form fields are objects that allow the visitor to enter information - for example text boxes, drop-down menus or radio buttons.

Example

- A typical form example would be a search engine.



A search form with a text input field and a 'SEARCH!' button. Below the input field, the text 'SEARCH THIS SITE' is visible.

- This is what happens when the form is submitted:
 - The search words are sent to a program on the server.
 - The program will search a database for matches.
 - The program creates a webpage with the results.
 - The results webpage is sent back to the visitor.

Example

- Another example would be a logon page.

SIGN UP HERE!' is displayed, with the link in blue and underlined. At the bottom, the text '[FORGOT YOUR PASSWORD?](#)' is also in blue and underlined." data-bbox="303 264 665 589"/>

Username:

Password:

NEW USERS: [SIGN UP HERE!](#)

[FORGOT YOUR PASSWORD?](#)

- This is what happens when the form is submitted:
 - The ID and password are sent to a program on the server.
 - The program will search a database for valid entries.
 - If the entry is valid the visitor is sent to the protected page.
 - If the entry is invalid the visitor is sent to a "failure" page.

The form tag

- The <form> tag tells the browser where the form starts and ends. You can add all kinds of HTML tags between the <form> and </form> tags.
- Look at this example:

```
<html>
<head>
  <title>My Page</title>
</head>


<body>
  <!-- Here goes HTML -->
  <form>
    <!-- Here goes form fields and HTML -->
  </form>
  <!-- Here goes HTML -->
</body>
</html>
```

The form tag

- To let the browser know where to send the content we add these properties to the `<form>` tag:

```
<html>
<body>
  <!-- Here goes HTML -->
  <form method="post" action="http://www.abc.com/">
    <!-- Here goes form fields and HTML -->
  </form>
  <!-- Here goes HTML -->
</body>
</html>
```

Text field

HTML	EXPLANATION	EXAMPLE
<code>text</code> <code>size=</code> <code>maxlength=</code> <code>name=</code> <code>value=</code> <code>align=</code> <code>tabindex=</code>	One line text field Characters shown. Max characters allowed. Name of the field. Initial value in the field. Alignment of the field. Tab order of the field.	

Password & hidden field

- Password fields are similar to text fields.
 - The difference is that what is entered into a password field shows up as dots on the screen. This is, to prevent others from reading the password on the screen.
- Hidden fields are similar to text fields, with one very important difference!
 - The difference is that the hidden field does not show on the page. Therefore the visitor can't type anything into a hidden field, which leads to the purpose of the field:

Email input

HTML 5 has introduced a special type called 'email' which can instruct the browser to accept only valid email as input.

```
<input id="emailId" name="emailId"
```

Email Textbox:

Please include an '@' in the email address. 'anand.com' is missing an '@'.

Placeholders

Placeholder is a text shown inside textbox when it is empty.

```
<input name="email" type="email"
```

p

Email Textbox:

Enter email

'required' attribute

Using 'required' attribute, we can insist user to enter some value into textbox.

```
<input type="text" name="username" required>
```

Textbox:

Please fill out this field.

'autofocus' attribute

We can inform browser to set the focus on a specific form element using 'autofocus' attribute.

```
<input type="email" name="emailId"  
placeholder="Enter email" autofocus>
```

<header> & <footer>


In order to provide header section, we used to create a <div id="header">. But now HTML 5 provides us built in <header> & <footer> tags.

```
<header>This is header section</header>
```

```
<footer>This is footer section</footer>
```


Text area

- Text areas are text fields that can span several lines.
- Unlike most other form fields, text areas are not defined with an `<input>` tag.
- Instead you enter a `<textarea>` tag where you want the text area to start and a closing `</textarea>` tag where you want the area to end.

HTML	EXPLANATION	EXAMPLE
<code>textarea</code> <code>rows=</code> <code>cols=</code> <code>name=</code> <code>tabindex=</code> <code>wrap=</code> <code>off</code> <code>virtual</code> <code>physical</code>	<p>Text area - several lines</p> <p>Rows in the field.</p> <p>Columns in the field.</p> <p>Name of the field.</p> <p>Tab order of the field.</p> <p>Turns off linebreaking</p> <p>Shows linebreaking, but sends text as entered.</p> <p>Inserts linebreaks when needed and even sends it.</p>	


Check box

- Check boxes are used when you want to let the visitor select one or more options from a set of alternatives.

HTML	EXPLANATION	EXAMPLE
<code>checkbox</code> <code>name=</code> <code>value=</code> <code>align=</code> <code>tabindex=</code> <code>checked</code>	Choose one or more options Name of the field. Value that is submitted if checked. Alignment of the field. Tab order of the field. Default check this field.	

Radio button


- Radio buttons are used when you want to let the visitor select one - and just one - option from a set of alternatives.

HTML	EXPLANATION	EXAMPLE
<code>radio</code> <code>name=</code> <code>value=</code> <code>align=</code> <code>tabindex=</code> <code>checked</code>	Choose one - and only one - option Name of the group. Value that is submitted if checked. Alignment of the field. Tab order of the field. Default check this field.	

Drop down menu

- Drop-down menus are probably the most flexible objects you can add to your forms.
- Depending on your settings, drop-down

menus can serve the same purpose as radio buttons (one selection only) or check boxes (multiple selections allowed).

HTML	EXPLANATION	EXAMPLE
<code>select</code> <code>name=</code> <code>size=</code> <code>multiple=</code> <code>option</code> <code>selected</code> <code>value=</code>	Drop-down menu Name of the field. Visible items in list. Allows multiple choices if yes. Individual items in the menu. Default select the item. Value to send if selected.	

Submit & reset button

- When a visitor clicks a submit button, the form is sent to the address specified in the action setting of the <form> tag.
- When a visitor clicks a reset button, the entries are reset to the default values.


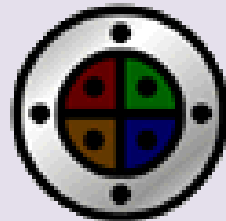
HTML	EXPLANATION	EXAMPLE
Submit/Reset name= value= align= tabindex=	Submit/Reset button Name of the button. Text written on the button. Alignment of the button. Tab order of the button.	

Image button

- Image buttons have the same effect as submit buttons. When a visitor clicks an image button the form is sent to the address specified in the **action setting of the <form> tag.**

HTML	EXPLANATION	EXAMPLE
image name= src= align= border= width= height= vspace= hspace= tabindex=	Submit button Name of the image. Url of the image. Alignment of the image. Border width around the image. Width of the image. Height of the image. Spacing over and under image. Spacing left and right of image. Tab order of the image.	

Quiz

- What is a field that allow the visitor to enter information called ?
 - Answer: Form fields
- The value setting of a text field defines what ?
 - Answer: What will appear in the field as the default value
- Which field can hold information that does not show?
 - Answer: Hidden field
- For text areas which setting inserts linebreaking as text is being entered, but sends text exactly as entered when the form is submitted?
 - Answer: wrap="Virtual"
- Which attribute specify where to send a form ?
 - Answer: action

Module 10: Miscellaneous

- Audio support
- Video support
- Regular expressions
- Mark element
- Custom attributes
- 'output' element
- Sliders

Audio support

In order to play audio we need not rely on third party plugins. HTML 5 offers us `<audio>` element.

The 'autoplay' attribute starts the audio automatically & 'controls' attribute gives us audio controls.

```
<audio autoplay controls>
```

```
  <source src="audio/Kalimba.mp3" />
```

```
</audio>
```



Video support

Similar to 'audio' element, html 5 also provides <video> element as well.

<video controls preload>

 <source src="video/test1.mp4"
type="video/mp4"/>

</video>

Regular expressions

Regular expressions allow us to specify format of input value. HTML 5 introduces an attribute called 'pattern' which is used to mention the regular expression.

```
<input type="text" name="username" placeholder="4 <> 10" pattern="[A-Za-z]{4,10}" >
```

Enter Name: ba

Please match the requested format.

'Mark' element

Using <mark> element you can highlight specific message.

<h3>

Kindly note that the examination will start at
<mark>"4 pm"</mark>.

Kindly note that the examination will start at "4 pm".

'output' element

The 'output' element is used to display some sort of calculation.

```
<form action="" method="get">
  <p>
    10 + 5 = <output name="sum"></output>
  </p>
  <button type="submit"> Calculate </button>
</form>
```

We can write code in java script to populate value of sum.

Sliders

HTML 5 introduces new type called 'range'. It provides us a slider to navigate.

```
<input type="range" name="music_volume" min="0" max="10" step="1" value="1">
```



Thank you!!!