

JAVA SCRIPT

HTML

SQL

CSS

PHP

LESSON 1: HTML

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WHAT IS HTML?



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.

WHAT IS HTML?



The original HTML was designed by Tim Berners Lee.

HTML is considered as leading mark up language used in designing and creating web hypertext documents together with other scripting languages.

Its functionality can greatly be increased.





xhtml

WHAT IS XHTML?

XHTML stands for Extensible Hypertext Mark Up Language.

It is the W3C recommended standard for writing HTML.

Is a cleaner, well-formed version of HTML.

XHTML is stricter than HTML.



xhtml

DIFFERENCES WITH HTML

XHTML tags, whether empty or paired tags must be always closed.

XHTML element name must always be in lowercase.

XHTML attribute names must always be in lowercase.

XHTML attribute values must always be quoted.

XHTML attribute minimization is forbidden.

<!DOCTYPE> is mandatory in XHTML.

A stylized graphic of a teal book spine with a red label reading 'xhtml'. The book is positioned on the left side of the slide, with the spine facing right. The label is a red rectangle with rounded corners, and the text 'xhtml' is written in white, lowercase, sans-serif font. The book's pages are represented by white horizontal bars of varying lengths, creating a stepped effect. The background of the slide is white with a light gray diamond pattern.

xhtml

SIMILARITIES WITH HTML

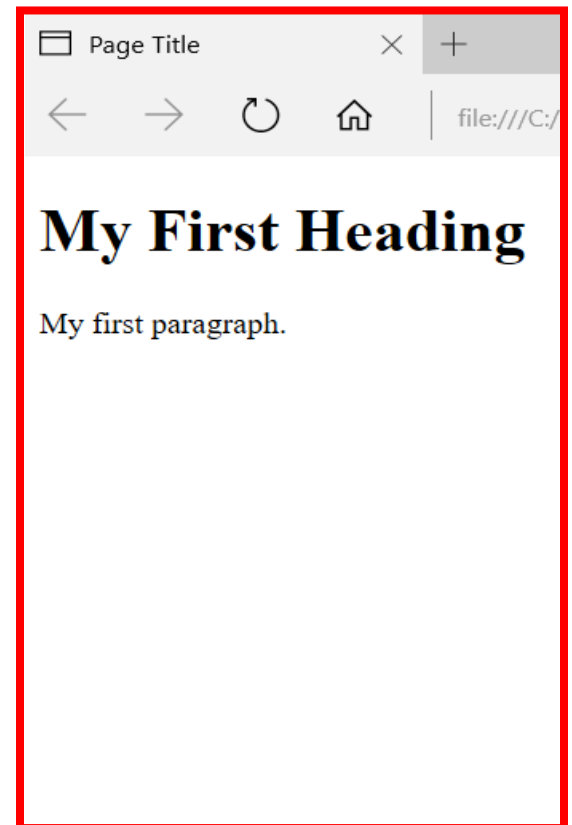
Plain text files saved with .html extension name.

Created using text editor.

Using the same tags.

SAMPLE HTML CODE

```
1  <!doctype html>
2  <html>
3    <head>
4      <title>Page Title</title>
5    </head>
6    <body>
7      <h1>My First Heading</h1>
8      <p>My first paragraph.</p>
9    </body>
10 </html>
```



WEB BROWSERS

The purpose of a web browser is to read HTML documents and display them.

The browser does not display the HTML tags but uses them to determine how to display the document.



HTML STRUCTURE

1. HTML TAGS

- A tag represents the various elements of the HTML document.
- It provides instructions on how the information will be processed by the browser.
- It consists of an element name (or letter symbol) enclosed in a left and right-angle brackets.

`<tagname>content goes here...</tagname>`



TYPES OF HTML TAGS



1. PAIRED TAGS

- Consist of a start tag and an end tag.
- The start tag marks the beginning of a section that is indicated by a left angle bracket, an element name (or letter symbol) and a right-angle bracket.
- On the other hand, end tag marks the end of a section and looks the same as the start tag with the forward slash before the element name of symbol.

Examples:

- `<html> </html>`
- `<head> </head>`
- `<a> `



2. EMPTY TAGS

Empty tags are tags that DO NOT require an end tag.

Examples:

- `` or ``
- `
` or `
`
- `<hr>` or `<hr/>`



CASE SENSITIVE?

HTML tags are **NOT** case sensitive: `
` means the same as `
`.

The HTML5 standard does not require lowercase tags, but W3C recommends lowercase in HTML.

2. HTML ELEMENTS

- An HTML element usually consists of a start tag and end tag, with the content inserted in between:

`<tagname>Content goes here...</tagname>`

- The HTML element is everything from the start tag to the end tag.

Start tag	Element content	End tag
<code><h1></code>	My First Heading	<code></h1></code>
<code><p></code>	My first paragraph.	<code></p></code>
<code>
</code>		

NOTE: Some HTML elements are empty (have no content) and do not have an end tag, such as the `
` element (which indicates a line break).



TYPES OF HTML ELEMENTS



1. BLOCK LEVEL ELEMENTS

A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).

Examples:

- `<h1>` to `<h6>`
- `<p>`
- `<form>`
- `<div>`



```
1 <!doctype html>
2 <html>
3   <head>
4     <title>Block Level Elements</title>
5   </head>
6   <body>
7     <h1>Headings are block level elements.</h1>
8     <p>As well as paragraphs.</p>
9     <p>They will not occupy the same line.</p>
10  </body>
11 </html>
```

Headings are block level elements.

As well as paragraphs.

They will not occupy the same line.



2. INLINE ELEMENTS

An inline element does not start on a new line and only takes up as much width as necessary.

Examples of inline elements:

- ``
- ``
- `<a>`



```
1 <!doctype html>
2 <html>
3   <head>
4     <title>Inline Elements</title>
5   </head>
6   <body>
7     </img>
8     <a href=" " >Sample link for BSIT</a>
9     </img>
10    <a href=" " >Sample link for BLIS</a>
11  </body>
12 </html>
```



[Sample link for BSIT](#)



[Sample link for BLIS](#)

3. HTML ATTRIBUTES

- All HTML elements can have attributes.
- Attributes provide additional information about an element.
- Attributes are always specified in the start tag.
- Attributes usually come in name/value pairs like name="value".

```
1 <!doctype html>
2 <html>
3   <head>
4     ...
5   </head>
6   <body align="center" >
7     <h1>YOUR TITLE HERE</h1>
8     <p>Lorem Ipsum is simply dummy text of the
9       printing and typesetting industry.</p>
10  </body>
11 </html>
```

YOUR TITLE HERE

Lorem Ipsum is simply dummy text of the printing and typesetting industry.



SINGLE OR DOUBLE QUOTES?

Double quotes around attribute values are the most common in HTML, but single quotes can also be used.

In some situations, when the attribute value itself contains double quotes, it is necessary to use single quotes:

```
<p title='John "ShotGun" Nelson'>
```

Or vice versa:

```
<p title="John 'ShotGun' Nelson">
```



COMMON ELEMENT ATTRIBUTES

Attribute	Description
alt	Specifies an alternative text for an image, when the image cannot be displayed
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)

HTML TAGS



DOCTYPE DECLARATION



The `<!doctype html>` declaration represents the document type and helps the browser to display a web page correctly.



It must only appear once, at the top of the page (before any HTML tags).



There are different document types. To display a web page correctly, the browser must know both type and version.



The doctype declaration is NOT case sensitive. All cases are acceptable:

`<!DOCTYPE html>`

`<!doctype HTML>`



DOCTYPE DECLARATION

HTML5

- `<!doctype html>`

HTML 4.01

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

XHTML 1.0

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



HTML VERSIONS

Since the early days of the web, there have been many versions of HTML:

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014



HTML TAGS

- `<html></html>` is used to indicate that the document is an HTML file. It indicates the beginning and the end of an HTML file.
- `<head></head>` this tags delimits the header section of the document and contains information about the document that is **NOT** generally displayed within the document.
- `<body></body>` is a tag that sets the overall page characteristics and delimits the beginning and end of the body section of the HTML document. It contains the entire document to be displayed on the page.



HTML COMMENTS

- You can add comments to your HTML source by using the following syntax:

```
<!-- Write your comments here -->
```

- Notice that there is an exclamation point (!) in the opening tag, but not in the closing tag.

```
<!-- Do not display this at the moment  
  
-->
```



TEXT APPEARANCE TAGS



HTML FONT

The tag specifies the font face, font size, and color of text.

```
1  <!doctype html>
2  <html>
3      <head>
4      </head>
5      <body>
6          <font face="times new roman" size="5" color="orange">
7              This is a text with font modification.
8          </font>
9      </body>
10 </html>
```

This is a text with font modification.



HTML FONT

Optional Attributes

Attribute	Value	Description
<u>color</u>	<i>rgb(x,x,x)</i> <i>#xxxxxx</i> <i>colorname</i>	Not supported in HTML5. Specifies the color of text
<u>face</u>	<i>font_family</i>	Not supported in HTML5. Specifies the font of text
<u>size</u>	<i>number</i>	Not supported in HTML5. Specifies the size of text



`<i> </i>`

- This tag italicizes section of text in an HTML document.

Header 1 in italic

` `

- This tag bolds section of text in an HTML document.

Header 2 in bold

`<u> </u>`

- This tag underlines section of text in an HTML document.

Header 3 in underline



` `

- This tag emphasize section of text in an HTML document.

Header 4 in emphasize

``

- This tag is used to create subscript in an HTML document.

This is how we use subscript: X_2

``

- This tag is used to create superscript in an HTML document

This is how we use superscript: X^2



HTML HEADING

- Headings are defined with the `<h1>` to `<h6>` tags.
- `<h1>` defines the **most** important heading.
- `<h6>` defines the **least** important heading.

```
1  <!doctype html>
2  <html>
3    <head>
4    </head>
5    <body>
6      <h1>This is heading 1</h1>
7      <h2>This is heading 2</h2>
8      <h3>This is heading 3</h3>
9      <h4>This is heading 4</h4>
10     <h5>This is heading 5</h5>
11     <h6>This is heading 6</h6>
12   </body>
13 </html>
```



This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

Note: Browsers automatically add some white space (a margin) before and after a heading.



ARE HEADINGS IMPORTANT?

Search engines use the headings to index the structure and content of your web pages.

Users skim your pages by its headings. It is important to use headings to show the document structure.

`<h1>` headings should be used for main headings, followed by `<h2>` headings, then the less important `<h3>`, and so on.

NOTE: Use HTML headings for headings only. Don't use headings to make text BIG or bold.



HTML DISPLAY

You cannot be sure how HTML will be displayed.

Large or small screens, and resized windows will create different results.

With HTML, you cannot change the output by adding extra spaces or extra lines in your HTML code.

The browser will remove any extra spaces and extra lines when the page is displayed.



NEITHER...

`<p>`

This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.

`</p>`

`<p>`

This paragraph
contains a lot of spaces
in the source code,
but the browser
ignores it.

`</p>`

SAME RESULT

This paragraph contains a lot of lines in the source code, but the browser ignores it.

HTML SPECIAL TAGS



HTML PARAGRAPH

- The HTML `<p>` element defines a **paragraph**.
- Optional Attributes:
 - Align (Right, Left, Center, Justify)
 - Title
 - Width

```
1  <!doctype html>
2  <html>
3    <head>
4    </head>
5    <body>
6      <p>This is a paragraph.</p>
7      <p>This is another paragraph.</p>
8    </body>
9  </html>
```

This is a paragraph.

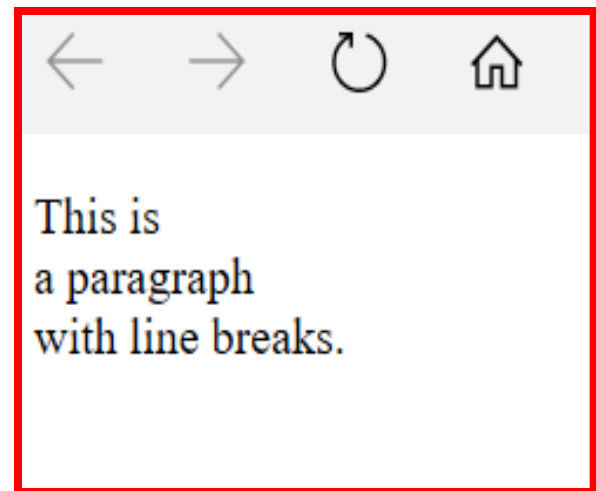
This is another paragraph.



HTML LINE BREAKS

The HTML `
` element defines a line break.

```
1  <!doctype html>
2  <html>
3      <head>
4      </head>
5      <body>
6          <p>This is <br>
7          a paragraph <br>
8          with line breaks.</p>
9      </body>
10 </html>
```





HTML SPACES

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <p>N&nbsp;B&nbsp;S&nbsp;P</p>
7     <p>E&ensp;N&ensp;S&ensp;P</p>
8     <p>E&emsp;M&emsp;S&emsp;P</p>
9     <p>T&thinsp;H&thinsp;I&thinsp;N&thinsp;S&thinsp;P</p>
10    <p>N&ndash;D&ndash;A&ndash;S&ndash;H</p>
11    <p>M&mdash;D&mdash;A&mdash;S&mdash;H</p>
12  </body>
13 </html>
```

N B S P

E N S P

E M S P

T H I N S P

N-D-A-S-H

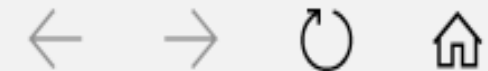
M-D-A-S-H



HTML PREFORMATTED

The text inside a `<pre>` element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks:

```
1  <!doctype html>
2  <html>
3    <head>
4    </head>
5    <body>
6      <pre>
7        This paragraph
8        contains a lot of lines
9        in the source code,
10       but the browser
11       ignores it.</pre>
12    </body>
13  </html>
```



This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.



HTML HORIZONTAL RULE

The `<hr>` tag defines a thematic break in an HTML page and is most often displayed as a horizontal rule.

```
1  <!doctype html>
2  <html>
3  <head>
4  </head>
5  <body>
6      <h1>This is heading 1</h1>
7      <p>This is paragraph 1.</p>
8
9      <hr width="15%" align="left">
10
11     <h2>This is another heading</h2>
12     <p>This is another paragraph.</p>
13
14 </body>
15 </html>
```



This is heading 1

This is a paragraph 1.

This is another heading

This is another paragraph.



IMAGES, VIDEOS, LINKS



HTML IMAGES (jpg, png, gif)

- The `` tag defines an image in an HTML page.
- The `` tag has two required attributes: `src` and `alt`.


```
<!doctype html>
<html>
  <head>
  </head>
  <body>
    
  </body>
</html>
```

```
<!doctype html>
<html>
  <head>
  </head>
  <body>
    
  </body>
</html>
```



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**COLLEGE OF INFORMATION AND
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Guinhawa, City of Malolos



Attribute	Value	Description
<u>align</u>	top bottom middle left right	Not supported in HTML5. Specifies the alignment of an image according to surrounding elements
<u>alt</u>	<i>text</i>	Specifies an alternate text for an image
<u>border</u>	<i>pixels</i>	Not supported in HTML5. Specifies the width of the border around an image
crossorigin	 anonymous use-credentials	Allow images from third-party sites that allow cross-origin access to be used with canvas
<u>height</u>	<i>pixels</i>	Specifies the height of an image
<u>hspace</u>	<i>pixels</i>	Not supported in HTML5. Specifies the whitespace on left and right side of an image
<u>ismap</u>	ismap	Specifies an image as a server-side image-map
<u>longdesc</u>	<i>URL</i>	Specifies a URL to a detailed description of an image
sizes		Specifies image sizes for different page layouts
<u>src</u>	<i>URL</i>	Specifies the URL of an image
srcset	<i>URL</i>	Specifies the URL of the image to use in different situations
<u>usemap</u>	<i>#mapname</i>	Specifies an image as a client-side image-map
<u>vspace</u>	<i>pixels</i>	Not supported in HTML5. Specifies the whitespace on top and bottom of an image
<u>width</u>	<i>pixels</i>	Specifies the width of an image



HTML VIDEOS (mp4,webm,ogg)

```
<!DOCTYPE html>
<html>
  <body>
    <h1>Gold Gear Awards 2022</h1>
    <video width="800px" autoplay muted loop controls>
      <source src="TEASER.mp4" type="video/mp4">
    </video>
  </body>
</html>
```

Gold Gear Awards 2022





HTML LINKS

- The `<a>` tag defines a hyperlink, which is used to link from one page to another.
- The most important attribute of the `<a>` element is the href attribute, which indicates the link's destination.

```
1  <!doctype html>
2  <html>
3  <head>
4  </head>
5  <body>
6      <a href="https://www.google.com/" style="color:blue; font-weight:bold">
7          Link to Google Website
8      </a>
9  </body>
10 </html>
```

[Link to Google Website](https://www.google.com/)



SETTING IMAGES AS LINKS

```
<!doctype html>
<html>
  <head>
  </head>
  <body>
    <a href="https://www.google.com/">
      
    </a>
  </body>
</html>
```

The word "Google" in its multi-colored font, centered within a red rectangular border.



IMAGES AND TEXT COMBINED

```
<!doctype html>
<html>
  <head>
  </head>
  <body>
    <a href="https://www.google.com/">
      
      Link to Google Website
    </a>
  </body>
</html>
```



[Link to Google Website](https://www.google.com/)



HTML MARQUEE

An HTML **marquee** is a scrolling piece of text displayed either horizontally across or vertically down your webpage depending on the settings. This is created by using HTML `<marquee>` tag.

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body style="color:white; font-size:50px;">
6     <marquee direction="left" bgcolor="orange" height="50px" scrollamount="20">
7       Sample text with marquee.
8     </marquee>
9
10    <marquee direction="right" bgcolor="grey" height="50px" scrollamount="30">
11      Sample text with marquee.
12    </marquee>
13  </body>
14 </html>
```




Attribute	Description
width	This specifies the width of the marquee. This can be a value like 10 or 20% etc.
height	This specifies the height of the marquee. This can be a value like 10 or 20% etc.
direction	This specifies the direction in which marquee should scroll. This can be a value like <i>up</i> , <i>down</i> , <i>left</i> or <i>right</i> .
behavior	This specifies the type of scrolling of the marquee. This can have a value like <i>scroll</i> , <i>slide</i> and <i>alternate</i> .
scrollDelay	This specifies how long to delay between each jump. This will have a value like 10 etc.
scrollAmount	This specifies the speed of marquee text. This can have a value like 10 etc.
loop	This specifies how many times to loop. The default value is INFINITE, which means that the marquee loops endlessly.
bgcolor	This specifies background color in terms of color name or color hex value.
hspace	This specifies horizontal space around the marquee. This can be a value like 10 or 20% etc.
vspace	This specifies vertical space around the marquee. This can be a value like 10 or 20% etc.

HTML TABLE TAGS



HTML TABLE

An HTML table consists of the `<table>` element and one or more `<tr>`, `<th>`, and `<td>` elements.

The `<tr>` element defines a table row, the `<th>` element defines a table header, and the `<td>` element defines a table cell.

NOTE: Tables should not be used for page layout.

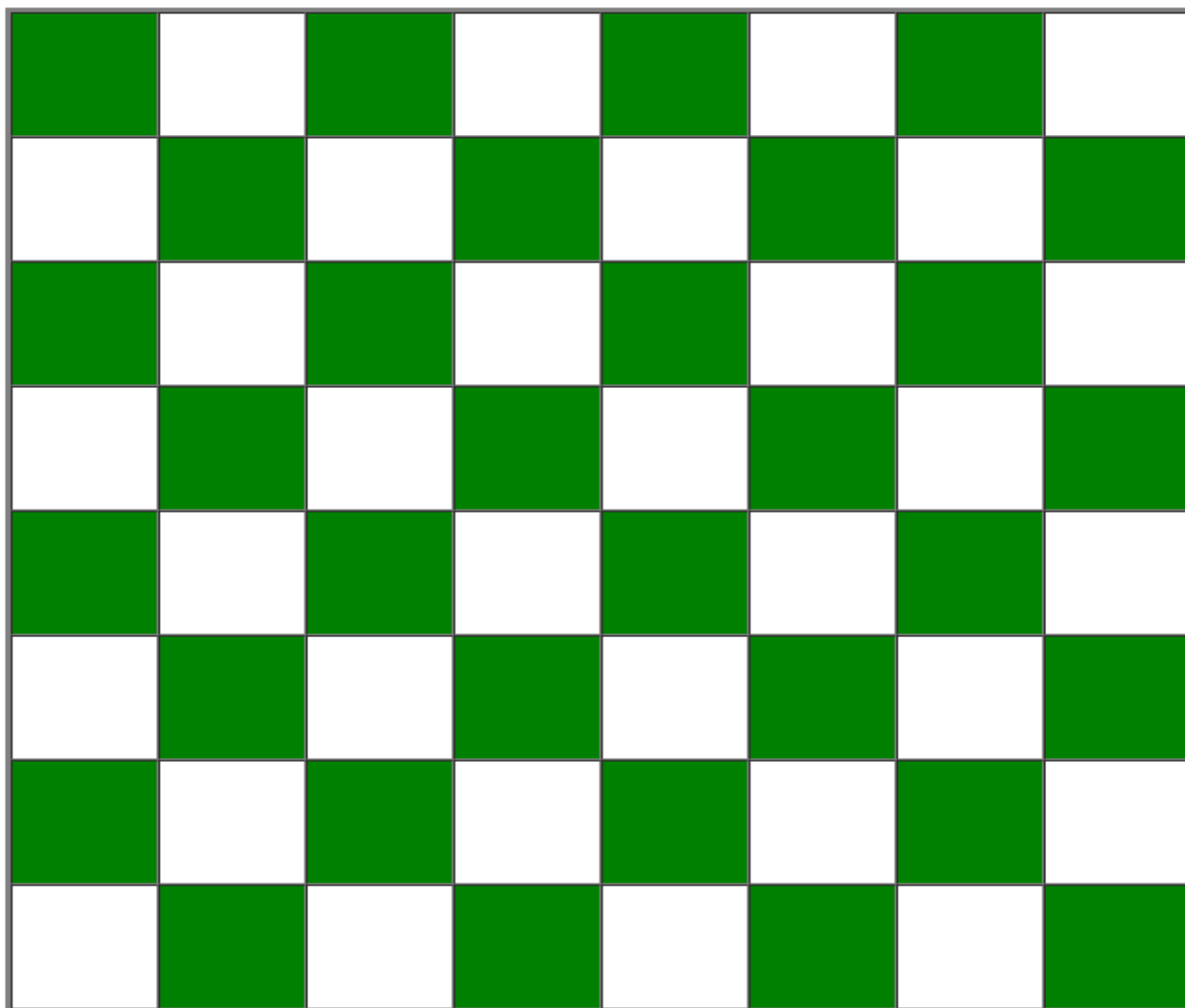


```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <table border="1" cellpadding="40" cellspacing="0">
7       <tr>
8         <th bgcolor="orange">NAME</th>
9         <th bgcolor="royalblue">SEX</th>
10      </tr>
11      <tr>
12        <td>John</td>
13        <td>Male</td>
14      </tr>
15      <tr>
16        <td>Jane</td>
17        <td>Female</td>
18      </tr>
19    </table>
20  </body>
21 </html>
```

NAME	SEX
John	Male
Jane	Female



CH^ESS BOARD 8 X 8





HTML LIST

- The tag defines a list item.
- The tag is used in ordered lists() and unordered lists ().

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <ol>
7       Top 3 Students
8       <li>John 1.25</li>
9       <li>Jane 1.75</li>
10      <li>Carl 2.55</li>
11    </ol>
12
13    <ul>
14      BSIT Specialization
15      <li>Business Analytics</li>
16      <li>Service Management</li>
17      <li>Web and Mobile Development</li>
18    </ul>
19  </body>
20 </html>
```

Top 3 Students

1. John 1.25
2. Jane 1.75
3. Carl 2.55

BSIT Specialization

- Business Analytics
- Service Management
- Web and Mobile Development

HTML FORMS



HTML FORM

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>`

TEXTBOX, PASSWORD FIELD & BUTTON

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       LOG IN WINDOW<br>
8       USERNAME <input type="text" placeholder="username"><br>
9       PASSWORD <input type="password" placeholder="password"><br>
10      <input type="button" value="Log in"
11      style="background-color:lightgrey; font-weight:bold;">
12    </form>
13  </body>
14 </html>
```

LOG IN WINDOW

USERNAME

PASSWORD

Log in

TEXT AREA

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       Leave your comments below: <br>
8       <textarea rows="4" cols="50"></textarea>
9     </form>
10  </body>
11 </html>
```

Leave your comments below:

RADIO BUTTON

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       Select Sex:<br>
8       <input type="radio" name="sex" value="male" checked="checked">Male<br>
9       <input type="radio" name="sex" value="female">Female<br>
10    </form>
11  </body>
12 </html>
```

Select Sex:

☒ Male

☐ Female

CHECK BOXES

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       Where do you learn about the job opening?<br>
8       <input type="checkbox" name="survey" value="jobstreet" checked="checked">Jobstreet<br>
9       <input type="checkbox" name="survey" value="ads">Classified Ads<br>
10      <input type="checkbox" name="survey" value="tv">TV Commercial<br>
11      <input type="submit" value="Save"
12    </form>
13  </body>
14 </html>
```

Where do you learn about the job opening?

- ☒ Jobstreet
- ☐ Classified Ads
- ☐ TV Commercial

Save

DROP DOWN LIST BOX

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       Select Course
8       <select>
9         <option selected disabled>Please Select</option>
10        <optgroup label="CICT">
11          <option value="1">BLIS</option>
12          <option value="2">BSIT</option>
13        </optgroup>
14        <optgroup label="COE">
15          <option value="3">BSCE</option>
16          <option value="4">BSEE</option>
17          <option value="5">BSIE</option>
18        </optgroup>
19      </select>
20    </form>
21  </body>
22 </html>
```

Select Course

BLIS	▼
Please Select	
CICT	
BLIS	
BSIT	
COE	
BSCE	
BSEE	
BSIE	

DATE AND NUMBER

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       <label for="bday">Date of Birth: </label>
8       <input type="date" id="bday" name="bday"><br>
9       <label for="age">Age: </label>
10      <input type="number" id="age" name="age">
11    </form>
12  </body>
13 </html>
```

Date of Birth: dd - - - yyyy



Age:

FIELD SET

```
1 <!doctype html>
2 <html>
3   <head>
4   </head>
5   <body>
6     <form>
7       <fieldset style="width:30%">
8         <legend>Personal Information</legend>
9         Name <input type="text"><br>
10        Select Sex:<br>
11        <input type="radio" name="sex" value="male" checked="checked">Male<br>
12        <input type="radio" name="sex" value="female">Female<br>
13        <input type="button" value="Register">
14      </fieldset>
15    </form>
16  </body>
17 </html>
```

Personal Information

Name

Select Sex:

☒ Male

☐ Female

A large, irregular orange watercolor splash or blotch serves as the background for the text. It has a textured, painterly appearance with some darker orange areas and lighter, more transparent edges. The splash is centered on the page.

END OF
LESSON