

UNIT-4 HTML

What is HTML?



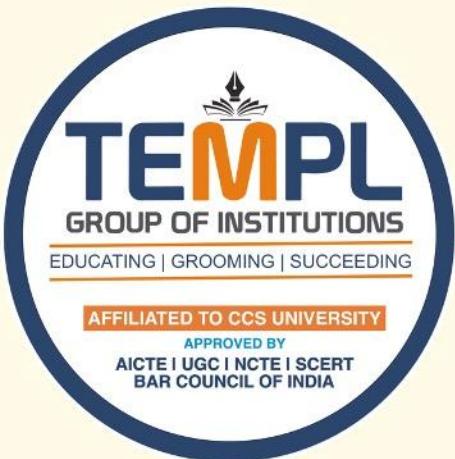
- HTML is the language for describing the structure of Web pages. HTML gives authors the means to:
- Publish online documents with headings, text, tables, lists, photos, etc.
- Retrieve online information via hypertext links, at the click of a button.
- Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc.
- Include spread-sheets, video clips, sound clips, and other applications directly in their documents.
- With HTML, authors describe the structure of pages using *markup*. The *elements* of the language label pieces of content such as “paragraph,” “list,” “table,” and so on.

HTML Basics



- HTML stands for Hypertext Markup Language
- HTML consists of Tags and values
- Tags have Attributes specified as `` where size is the attribute and +1 is the value of the attribute. that are specified in the open bracket.

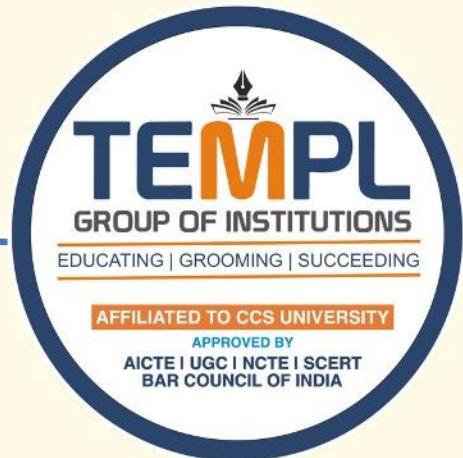
HTML Snippet



- In the following HTML snippet name the following: tag, attribute, attribute value and value: Test font
 - Tag = font
 - Attribute = size
 - Attribute value = +1
 - Value = Test font
 - Why does appear at the end?
 - To close out the tag in the HTML code

Static vs. Dynamic Websites

- Static Websites
 - Never change
 - Unless the HTML code is changed and uploaded to web server
- Dynamic Websites
 - Can change based on an event or data based on code in the website
 - Common occurrences of this are dates/times on a website



Important Code

```
• <!DOCTYPE html>
<html lang="en">
<head>
  <title>Title of the document</title>
</head>
<body>
</body>
</html>
```

- This HTML code indicates the title of the web page is Important Code
- The `<head>` element is a container for metadata (data about data) and is placed between the `<html>` tag and the `<body>` tag.
- Metadata is data about the HTML document. Metadata is not displayed.
- Metadata typically define the document title, character set, styles, scripts, and other meta information.



<body></body> tag

- The <body> tag defines the document's body.
- The <body> element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- Note: There can only be one <body> element in an HTML document.



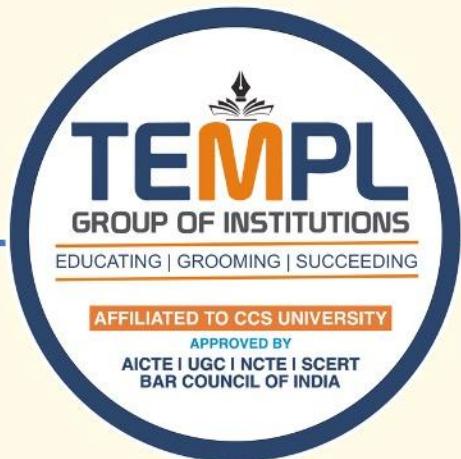
 tag

- An unordered HTML list:
-
- Coffee
- Tea
- Milk
-
- The tag defines an unordered (bulleted) list.
- Use the tag together with the tag to create unordered lists.
- Tip: Use CSS to style lists.
- Tip: For ordered lists, use the tag.

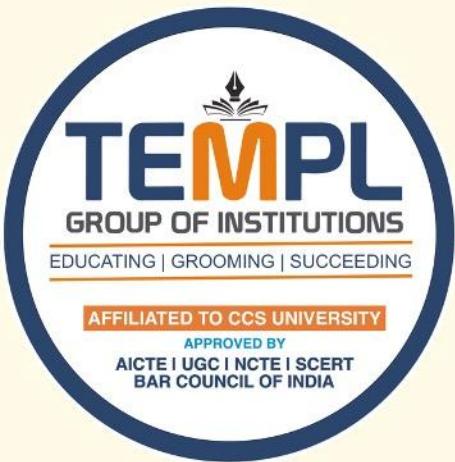


 tag

- The tag defines a list item.
- The tag is used inside ordered lists(), unordered lists (), and in menu lists (<menu>).
- In and <menu>, the list items will usually be displayed with bullet points.
- In , the list items will usually be displayed with numbers or letters.
- Tip: Use CSS to style lists.



<a> tag



- 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.
- By default, links will appear as follows in all browsers:
 - An unvisited link is underlined and blue
 - A visited link is underlined and purple
 - An active link is underlined and red

<a href...

- How to open a link in a new browser window:
- Visit W3Schools.com!
- The hyperlink reference is to the website, the target opens the link in a new browser window and the text Visit W3Schools.com! is the text listed which is linked to the website.



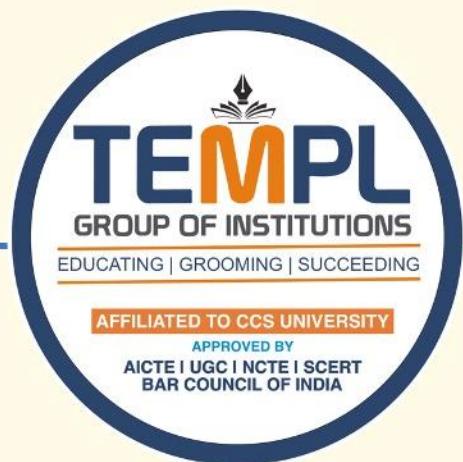
HTML Simple Page



```
<html>
  <head>
    <title>Your Name</title>
  </head>
  <body>
    <ul>
      <li>Bulleted Text</li>
      <li><a href="http://www.website.com">Website</a></li>
    </ul>
  </body>
</html>
```

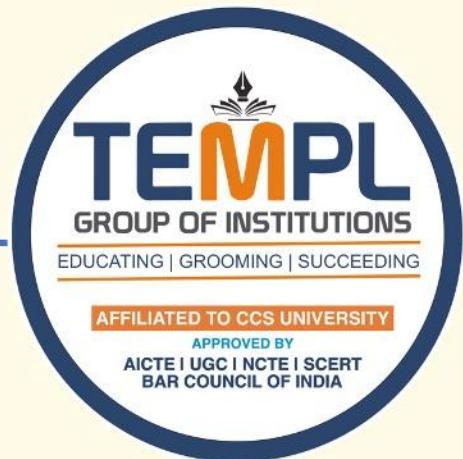
Important Tags

- `<p></p>` for writing a paragraph with text
- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<small>` - Smaller text



 and tags

- In order to bold text you can use either the or tags
 - Marino will show up as **Marino**
 - Marino will show up as **Marino**
 - Notice they are both merely bold!



<i> and tags

- In order to italicize text you can use either the <i> or tags
 - <i>Marino</i> will show up as *Marino*
 - Marino will show up as *Marino*
 - Notice they are both merely italic!

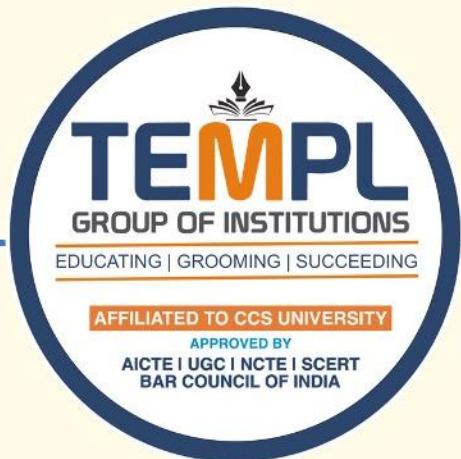


<small> tag

- This merely makes your text smaller without having to utilize the size attribute or similar attributes within HTML code
- Ideally, you use this tag to deemphasize something [things that are not important]



In Class Exercise



- Using the information taught in class create an HTML file index.html where you have a paragraph describing yourself.
- Also, create a menu with the following links: Home, Favorite Sports Teams, and Contact Me
- Have the Favorite Sports Teams have a dropdown menu of at least three teams you like. (Examples can include teams from Baseball, Football, Soccer, Basketball, Hockey, College, High School, etc.)

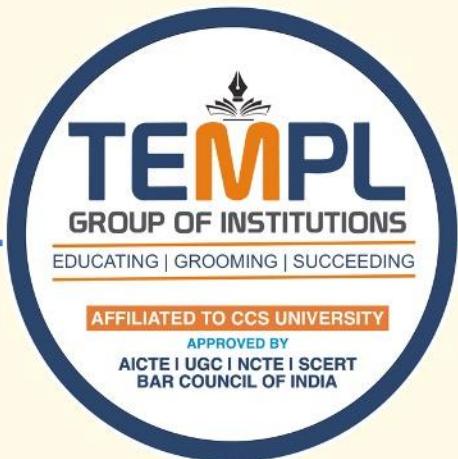
In Class Exercise Getting Started

- To write a paragraph use the `<p>...</p>` tag

```
<html>
  <head>
    <title>Your Name</title>
  </head>
  <body>
    <p>Put paragraph here</p>
  </body>
</html>
```



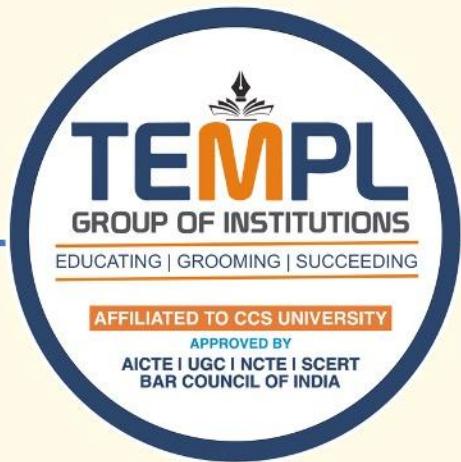
In Class Exercise Getting Started



- To create your links use the `` and `` tags
- Your code should go in the header section `<head>`

```
<ul>
  <li><a href="" class="current">Home</a></li>
  <li><a href="">Favorite Sports Teams</a></li>
  <li><a href="">Contact Me</a></li>
</ul>
```

In Class Exercise Getting Started



- You should use the <select> tag for your dropdown

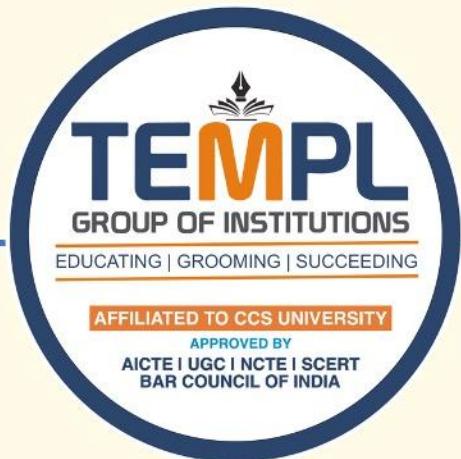
```
<select name="teams" id="teams">  
  <option value="1">Team 1</option>  
  <option value="2">Team 2</option>  
  <option value="3">Team 3</option>  
</select>
```

In Class Exercise Getting Started



```
<ul>
    <li><a href="" class="current">Home</a></li>
    <li><a href="">Favorite Sports Teams</a></li>
    <select name="teams" id="teams">
        <option value="1">Team 1</option>
        <option value="2">Team 2</option>
        <option value="3">Team 3</option>
    </select>
    <li><a href="">Contact Me</a></li>
</ul>
```

In Class Exercise Visual



- Home
- Favorite Sports Teams
 - Team 1 ▾
- Contact Me

Put paragraph here



Advanced HTML

Review



- HTML stands for Hypertext Markup Language
- HTML consists of Tags and values
- Tags have Attributes specified as `` where size is the attribute and +1 is the value of the attribute. that are specified in the open bracket.
- Static websites never change unless you edit the code and upload updated version
- Dynamic websites can change based on an event or data embedded within the code; common with dates and times

HTML Snippet

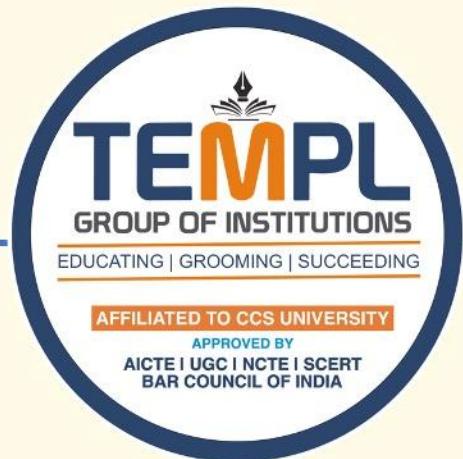


- In the following HTML snippet name the following: tag, attribute, attribute value and value: Test font
 - Tag = font
 - Attribute = size
 - Attribute value = +1
 - Value = Test font
 - Why does appear at the end?
 - To close out the tag in the HTML code

Common HTML Tags

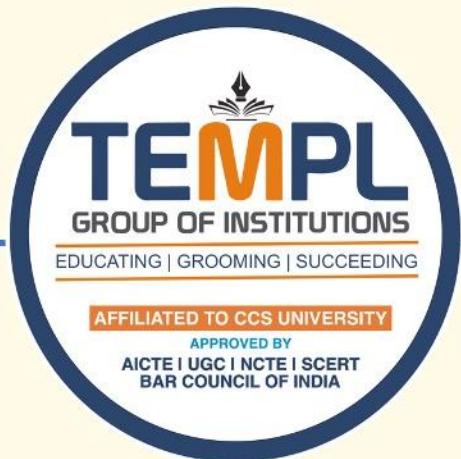


- <html>...</html> - begins and ends the entire HTML document
- <head>...</head> - defines information about the document
- <body>...</body> - defines the document's body
- <p>...</p> - defines a paragraph
- ... - defines an unordered list
- ... - defines an ordered list
- ... - defines a list item
- <a href>... - hyperlink
- - defines an image



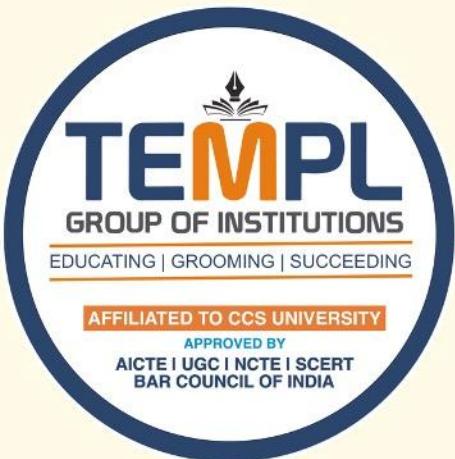
- Your own web space
- <http://courses.shu.edu/BITM3730/marinom6/>
- Above is my web space
- Yours will be the same except your Pirate Net username will replace marinom6

courses.shu.edu



- This is where your project website will be stored
- Everything will be uploaded to your web space
- This allows for your website to be LIVE

Project Proposal Examples



- <https://elementor.com/blog/website-proposal/>
- <https://www.invisionapp.com/inside-design/web-design-proposal/>
- <https://www.godaddy.com/garage/write-web-design-proposal/>
- <https://learn.g2.com/website-proposal>

HTML Headers



- <h1>...</h1>
- <h2>...</h2>
- <h3>...</h3>
- <h4>...</h4>
- <h5>...</h5>
- <h6>...</h6>

Styles & Fonts

Styles

- <h1 style="color:blue;">This is a heading</h1>
- <p style="color:red;">This is a paragraph.</p>

Fonts

- <h1 style="font-family:verdana;">This is a heading</h1>
- <p style="font-family:courier;">This is a paragraph.</p>



Text Size & Alignment

Size

- <h1 style="font-size:300%;">This is a heading</h1>
- <p style="font-size:160%;">This is a paragraph.</p>

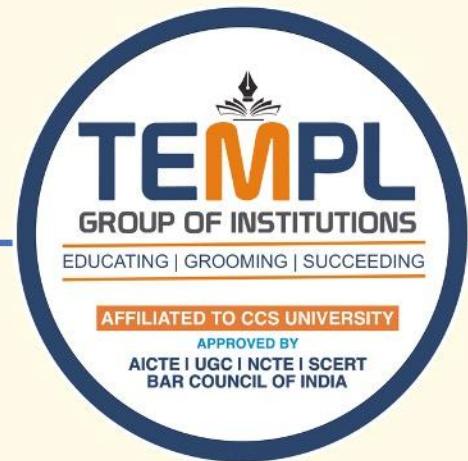
Alignment

- <h1 style="text-align:center;">Centered Heading</h1>
- <p style="text-align:center;">Centered paragraph.</p>

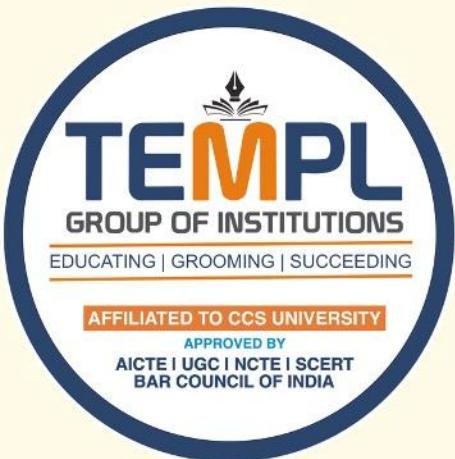


Language

- <html lang="en">
- <https://www.tutorialrepublic.com/html-reference/html-language-codes.php>
 - All language codes listed above

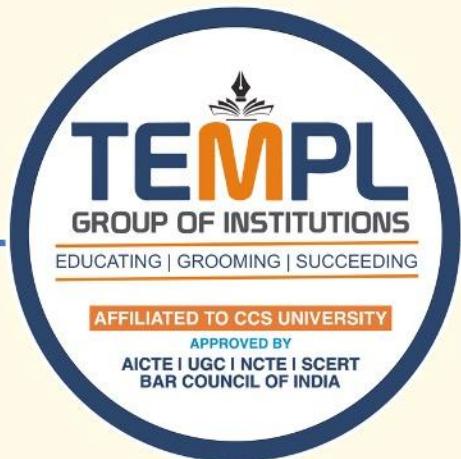


Using Images



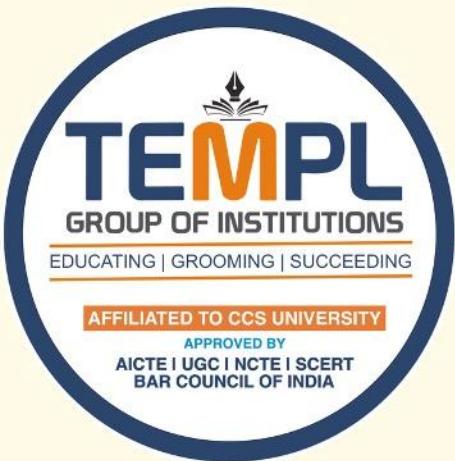
-
- img src – image source
- alt – description
- width and height should be altered depending on needs

Images As Background



- <div style="background-image: url('img_girl.jpg');">
- <style>
- div {
- background-image: url('img_girl.jpg');
- }
- </style>

Repeat Background



- <style>
- body {
- background-image: url('example_img_girl.jpg');
- background-repeat: **no-repeat**;
- }
- </style>

Building Tables

- Why build a table?
- Easiest way to organize info in an HTML file
 - Assuming not using XML or JSON [covered later in the course]



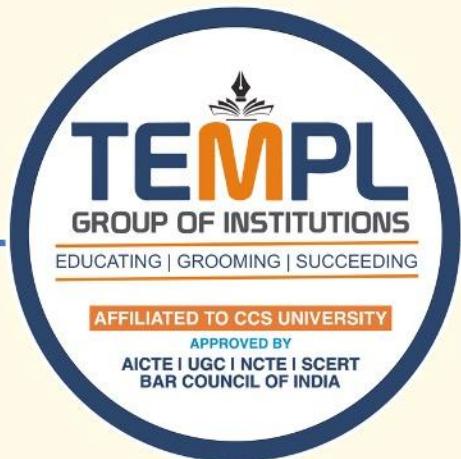
Tags for building a table



- <table>...</table> - defines a table
- <tr>...</tr> - defines a table row, must appear within a table
- <td>...</td> - defines a table column, must appear within a table row
- <th>...</th> - defines a table header

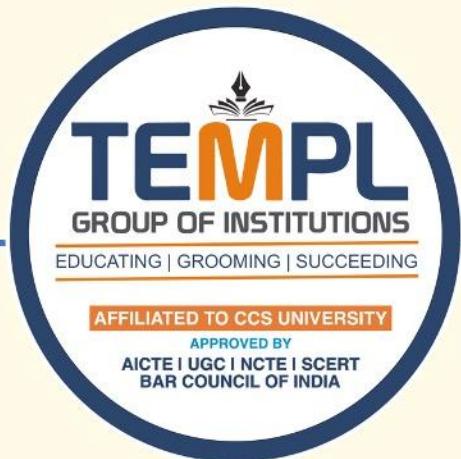
<table></table> tag

- The <table> tag defines an HTML table.
- An HTML table consists of one <table> element and one or more <tr>, <th>, and <td> elements.



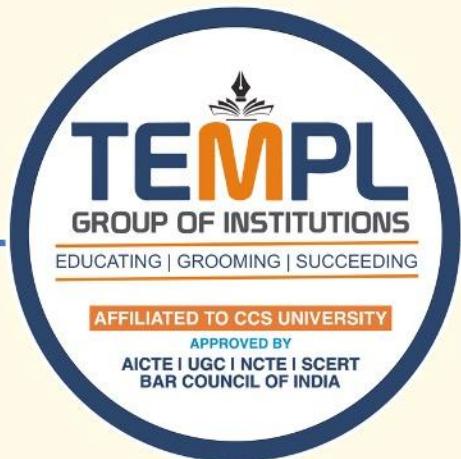
<tr></tr> tag

- The <tr> tag defines a row in an HTML table.
- A <tr> element contains one or more <th> or <td> elements.

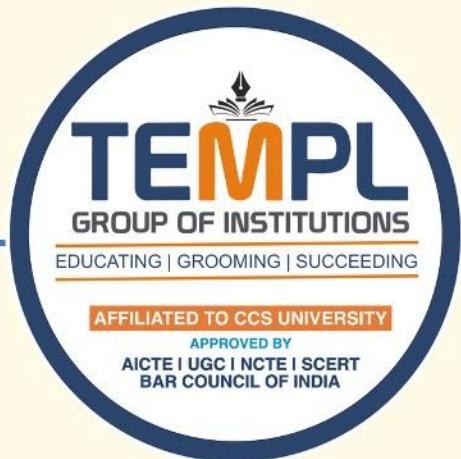


<td></td> tag

- The <td> tag defines a standard data cell in an HTML table.
- An HTML table has two kinds of cells:
 - Header cells - contains header information (created with the <th> element)
 - Data cells - contains data (created with the <td> element)
- The text in <td> elements are regular and left-aligned by default.
- The text in <th> elements are bold and centered by default.

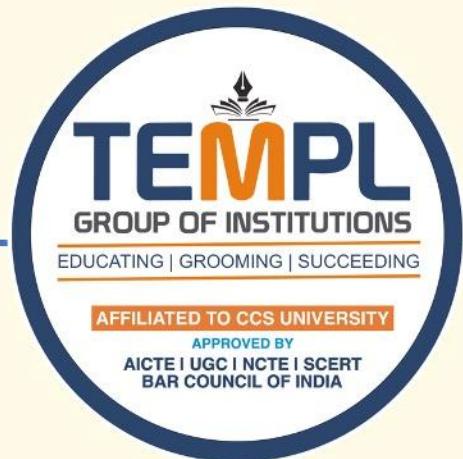


<th></th> tag



- The <th> tag defines a header cell in an HTML table.
- An HTML table has two kinds of cells:
 - Header cells - contains header information (created with the <th> element)
 - Data cells - contains data (created with the <td> element)
- The text in <th> elements are bold and centered by default.
- The text in <td> elements are regular and left-aligned by default.

Building an HTML file with a Table



Begin with basic code:

```
<html>  
<head>  
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">  
<title>New Page 1</title>  
</head>  
<body>  
</body>  
</html>
```

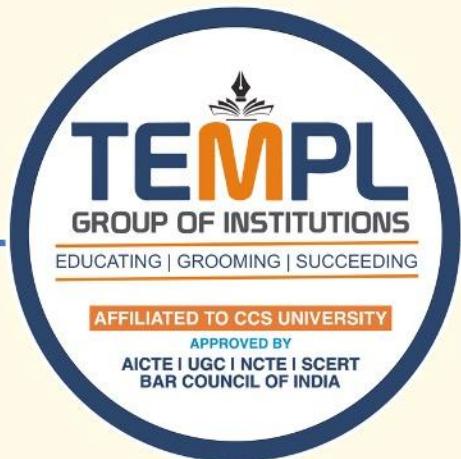
Add Your Header



- <title>New Page 1</title>
- </head>
- <h1 align="center">Your Schedule</h1>
- <body>

- By adding the <h1></h1> code you have created an overall header

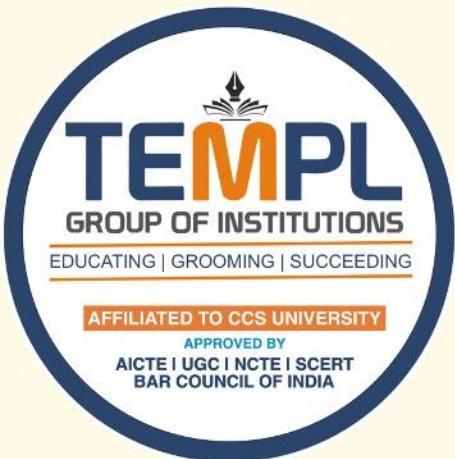
Begin creating your Table



- <body>
- <table border="0" width="100%">
- </table>
- </body>

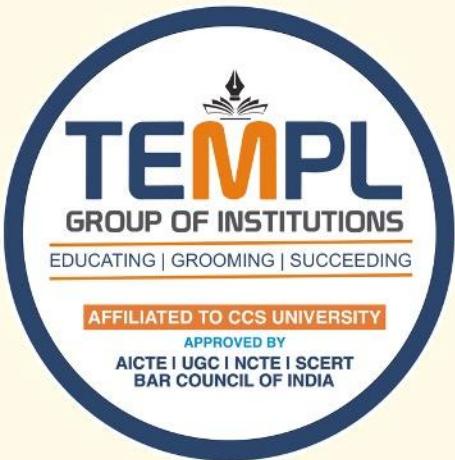
- You can play around with the thickness of the table's border by changing “0” to different sizes

Building the Table's Data



- <table border="0" width="100%">
- <tr>
- <th>Course Name</th>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- </tr>
- </table>

Building the Table's Data



- <tr>
- <th>Instructor</th>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- </tr>
- <tr>
- <th>Number of Credits</th>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- </tr>

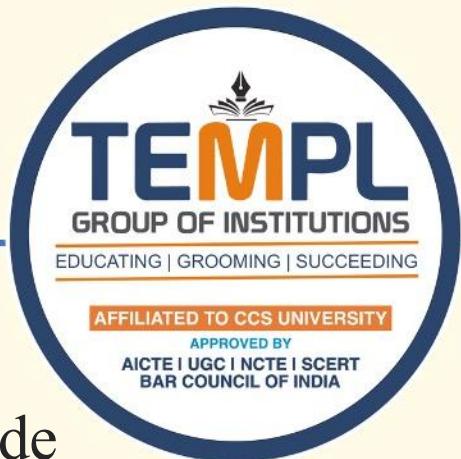
Visual Table



Professor Marino's Schedule

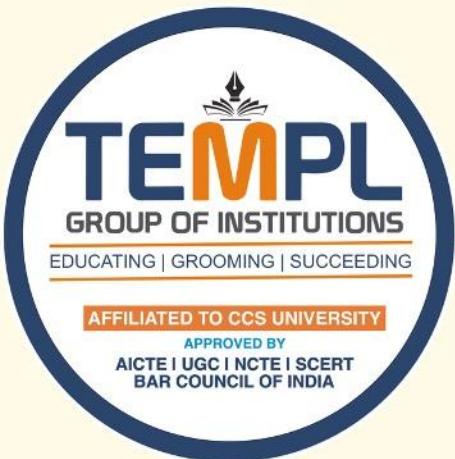
Course Name				
Instructor				
Number of Credits				

Visual Table Notes



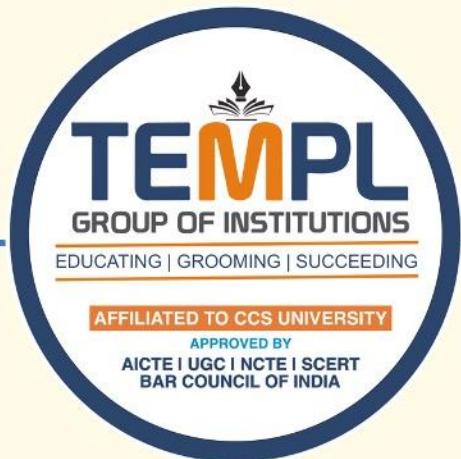
- Sizes of the cells in each row will change when you replace the code with actual text
- What do you do if you are taking more than 4 courses?
 - You will need to add an additional <td></td> for each section [Course Name, Instructor, and Number of Credits] until you have enough cells to cover all of your courses for the table you create in Assignment 2

<div></div> tag



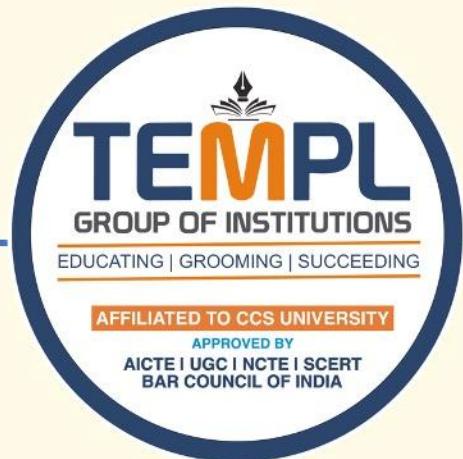
- The <div> tag defines a division or a section in an HTML document.
- The <div> tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript.
 - The <div> tag is easily styled by using the class or id attribute.
 - Any sort of content can be put inside the <div> tag!
- Note: By default, browsers always place a line break before and after the <div> element.
- For our purpose, it is important to note the <div> tag serves as a break for a paragraph [<p></p> tag]

HTML Review



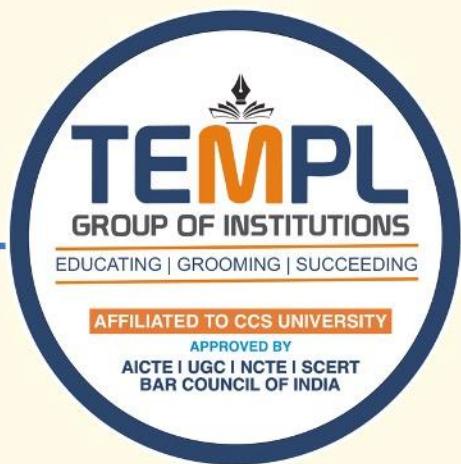
- Website Link serves as code for hyperlinking a website
 - As discussed href is “hyperlink reference”
- The <h1></h1> tag represents a header
 - <h2></h2>, <h3></h3>, etc. also exist and get smaller

Keep in Mind Now, but for Later



- <form>...</form> - defines a form
- <input type.../> - defines a form input
 - button
 - checkbox
 - file
 - hidden
 - image
 - password
 - radio
 - reset
 - submit
 - text

In Class Exercise



Create an HTML page called gallery.html with 16 images displayed.

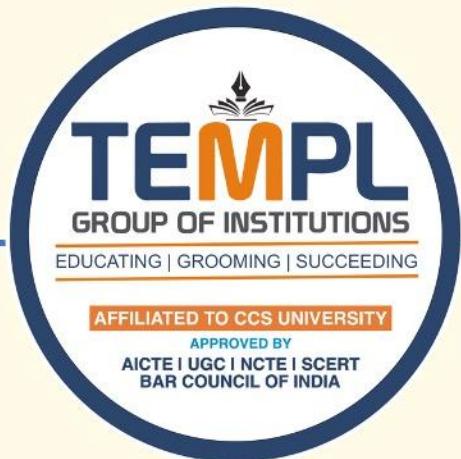
Building our Gallery

- <table border="0" width="100%">
- <tr>
- <td> </td>
- <td> </td>
- <td> </td>
- <td> </td>
- </tr>
- </table>

Change the highlighted 0
to a larger number so we
can see the border

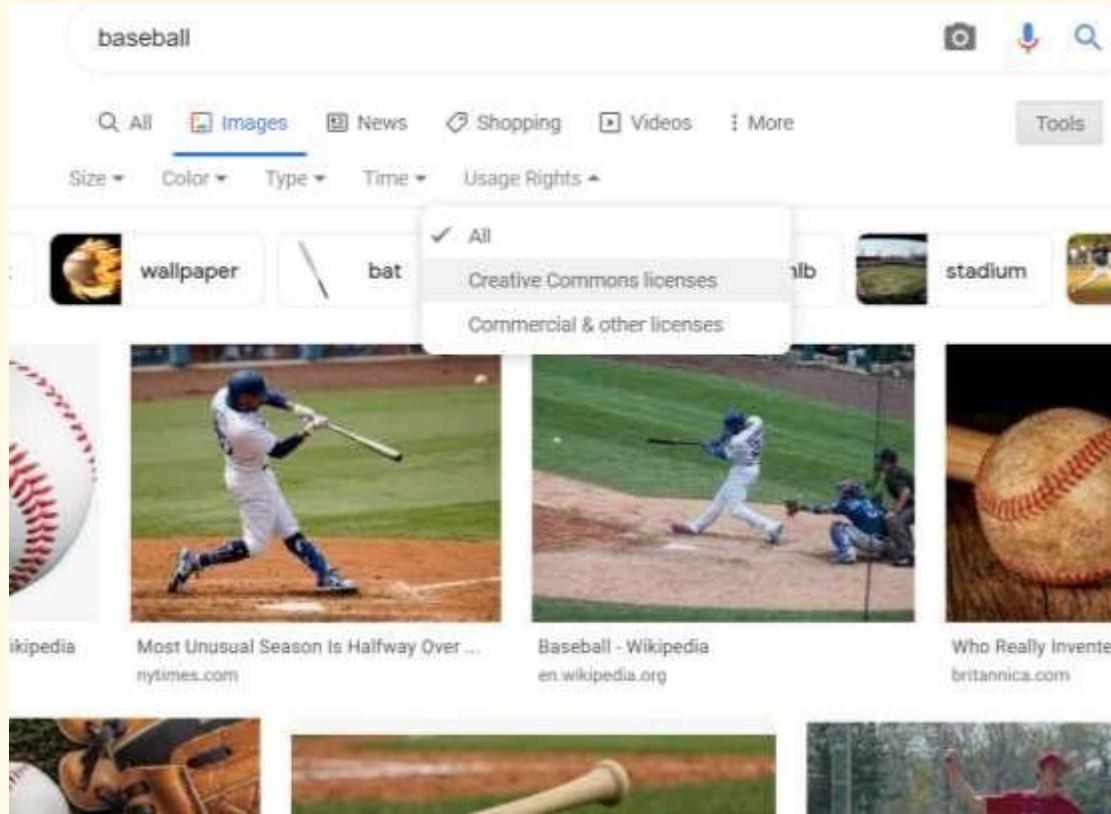


Picture Gallery



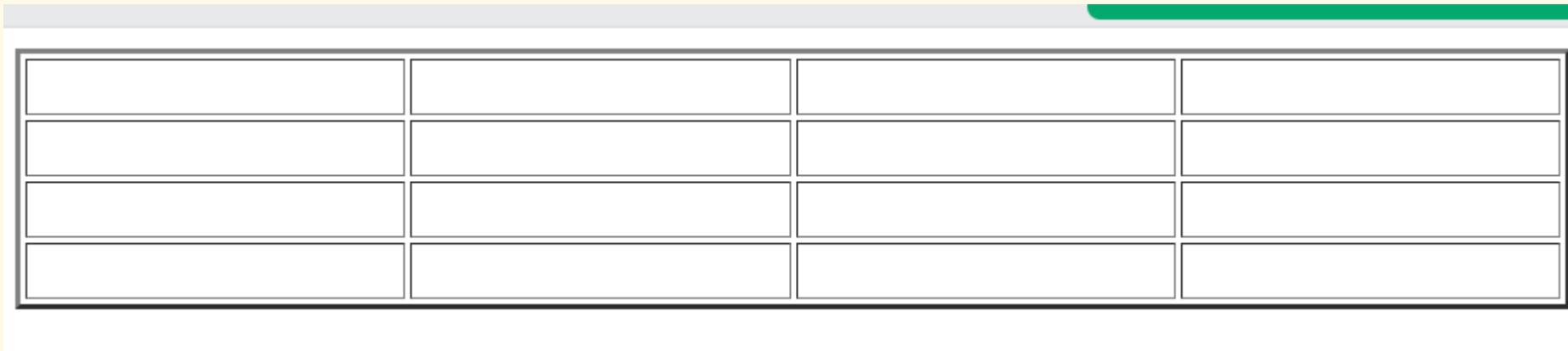
- The code on the previous slide only gives us 4 boxes
- How do we get our 16?

Where do we get Images?

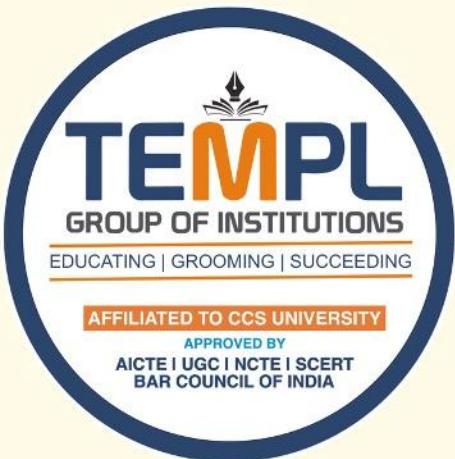


- <https://www.freeimages.com/search/baseball>
- Or search Google for free use images

Current Gallery View

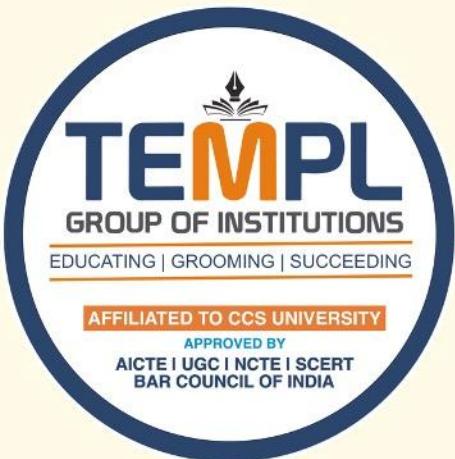


Embedding Images



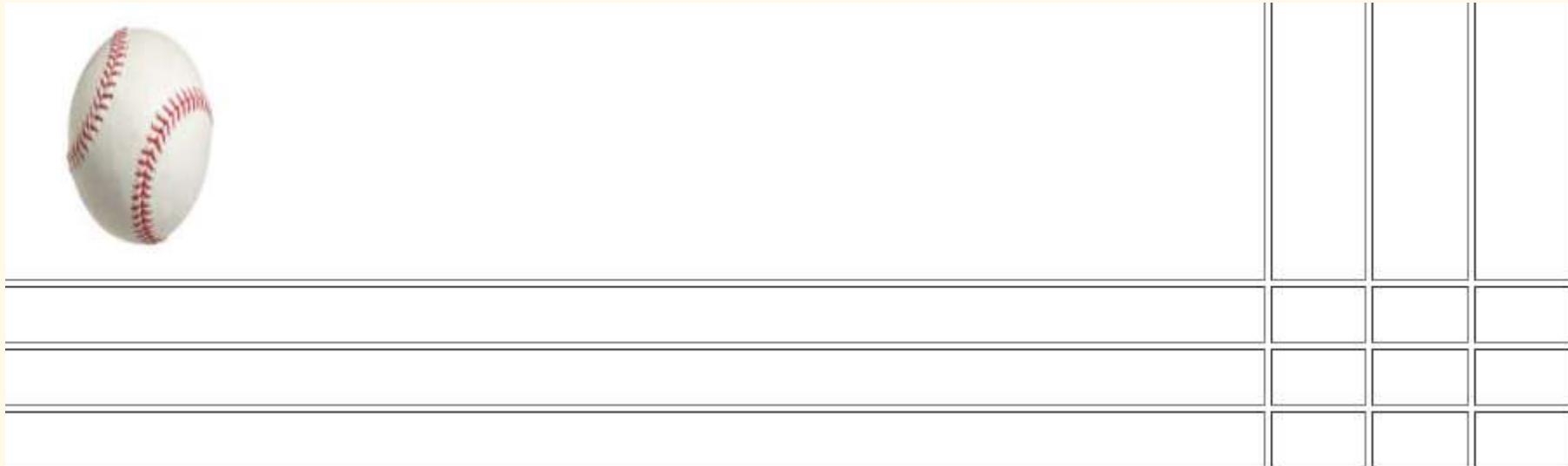
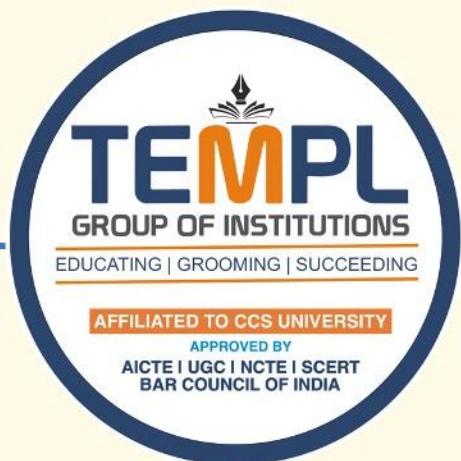
-
- Where img src is your image source
- alt is your alternate description of the image
- width and height should be modified so that all pictures line up

How it looks?



- <td></td>
- Use the direct image source for now, once we have an image saved to our web space the img src is much shorter like in previous example

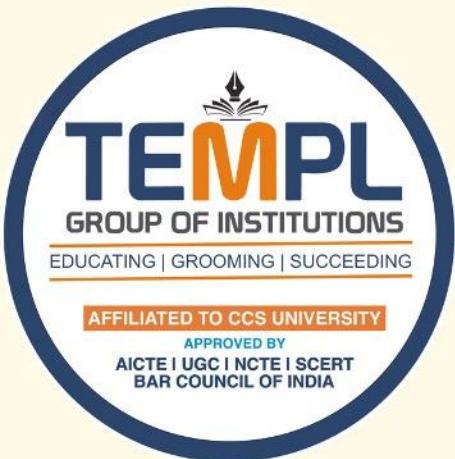
Visual



My Example Gallery Visual

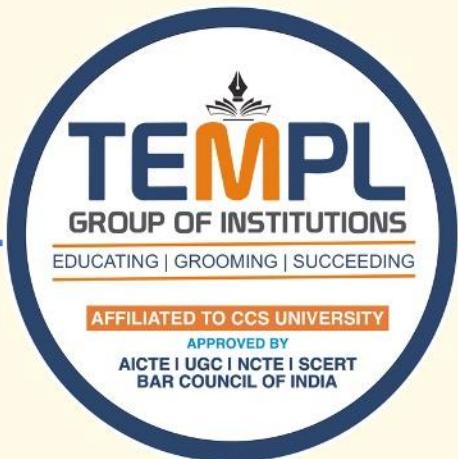


Of Note



- You don't need to use alt tag if you don't want to
- You can remove the table border once all 16 images are there
- You want to use the same height for each image

HTML Assignment



- Create a file called gallery.html to be uploaded to your courses.shu.edu webspace.
- gallery.html should contain an introduction to yourself followed by a table including your course schedule and an image you feel represents each of your classes. For example, if you feel a course is chaotic you might use an image of people playing dodgeball.
- This combines what you did on 8/29 and 9/12 in class.