



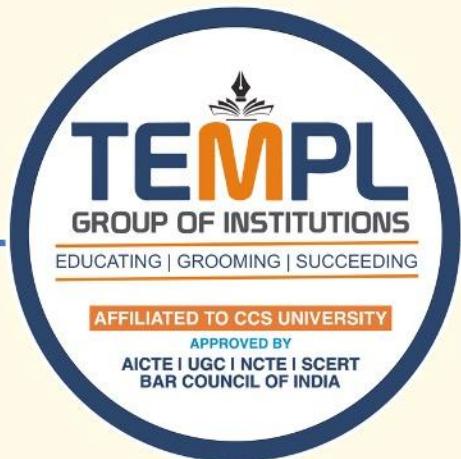
# UNIT-4 HTML

# What is HTML?



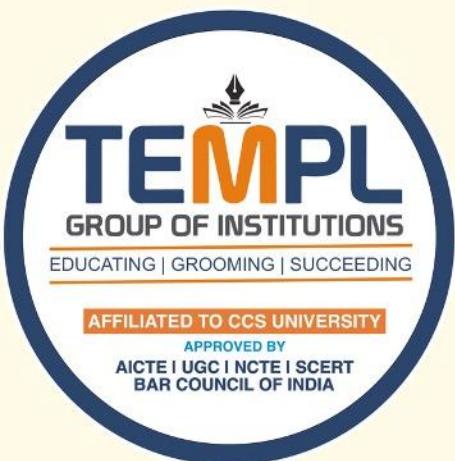
- HTML is the language for describing the structure of Web pages. HTML gives authors the means to:
- Publish online documents with headings, text, tables, lists, photos, etc.
- Retrieve online information via hypertext links, at the click of a button.
- Design forms for conducting transactions with remote 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 `<font size="“+1”>` 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: <font size="“+1”>Test font</font>
  - Tag = font
  - Attribute = size
  - Attribute value = +1
  - Value = Test font
  - Why does </font> 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



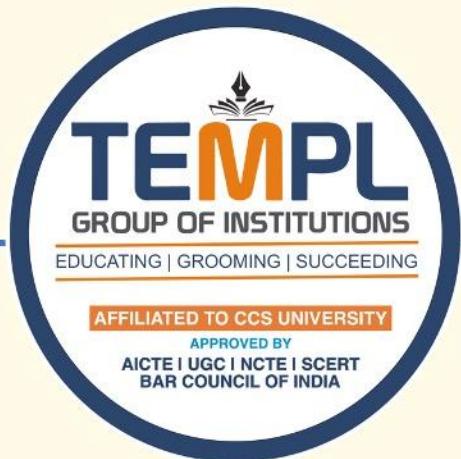
# Important Code

- <!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.



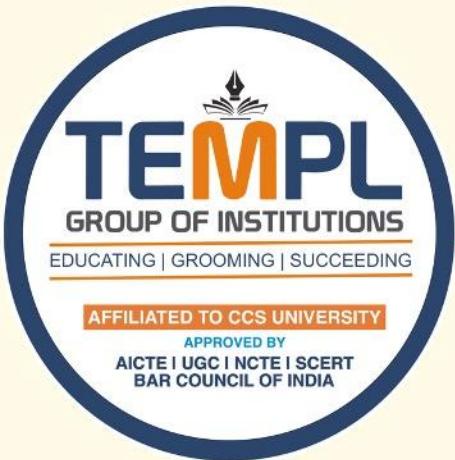
# <ul></ul> tag

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

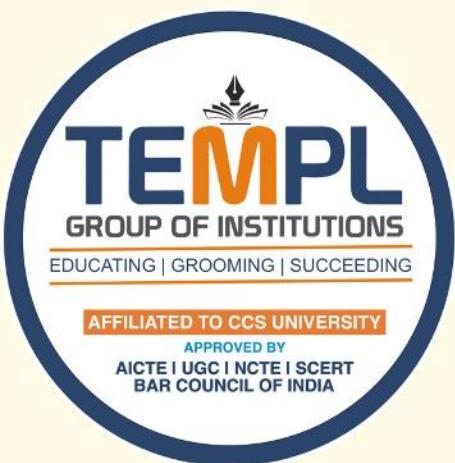


# <li></li> tag

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



# <a></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...></a>

- How to open a link in a new browser window:
- <a href="<https://www.w3schools.com>" target="\_blank">Visit W3Schools.com!</a>
- 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.



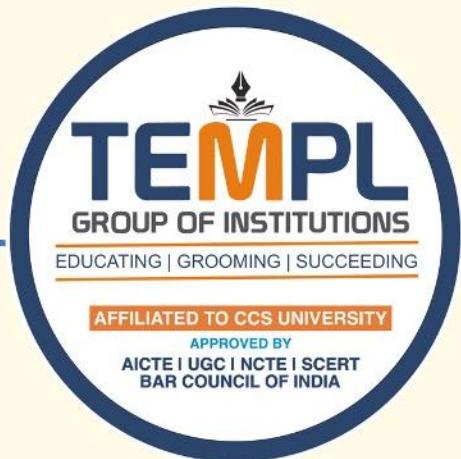
# HTML Simple Page



```
<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>
```

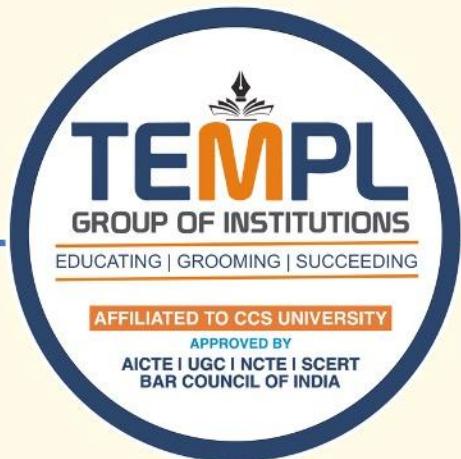
# Important Tags

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



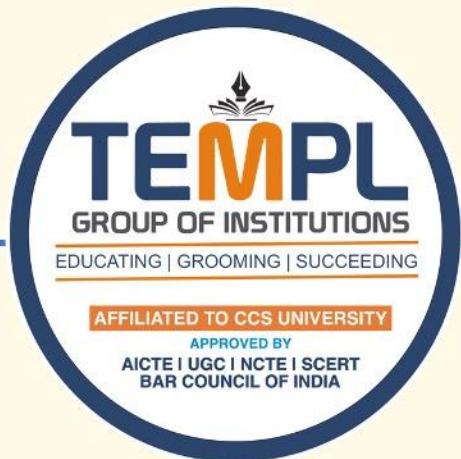
# <b> and <strong> tags

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



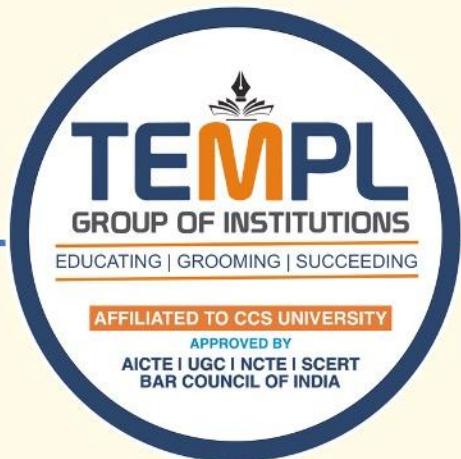
# <i> and <em> tags

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

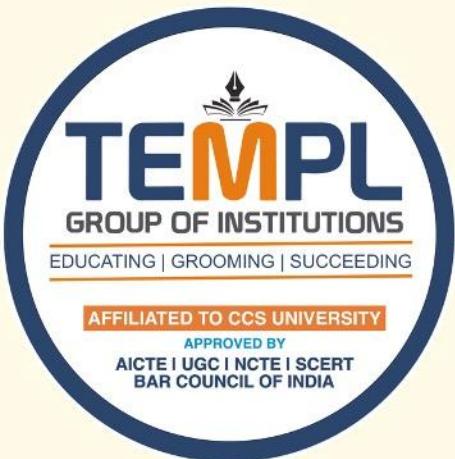


# <small> tag

- 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

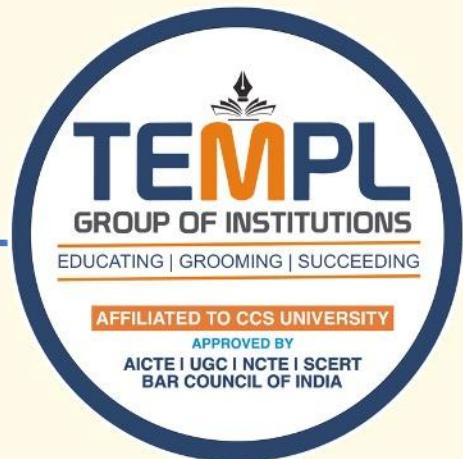


- Using the information taught in class create an HTML file index.html where you have a paragraph describing yourself.
- Also, create a menu with the following links: Home, Favorite Sports Teams, and Contact Me
- Have the Favorite Sports Teams have a dropdown menu of at least three teams you like. (Examples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

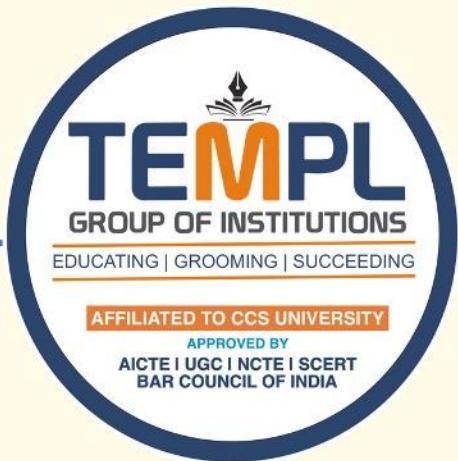
# In Class Exercise Getting Started

- 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 `<ul>` and `<li>` 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



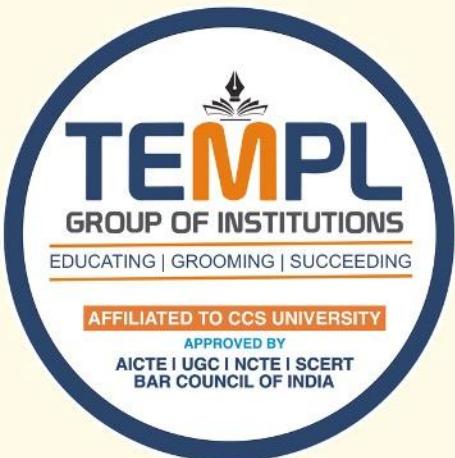
# Advanced HTML

# Review



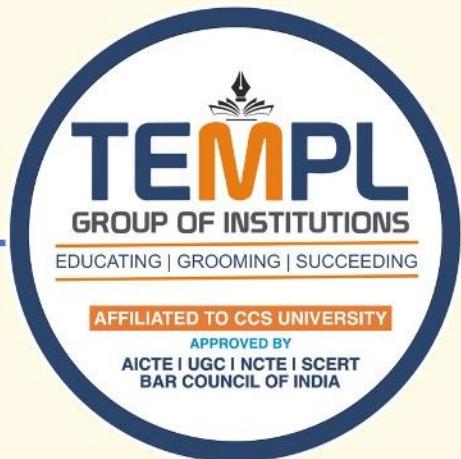
- HTML stands for Hypertext Markup Language
- HTML consists of Tags and values
- Tags have Attributes specified as `<font size="+1">` where size is the attribute and +1 is the value of the attribute. that are specified in the open bracket.
- Static websites never change unless you edit the code and upload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

# HTML Snippet



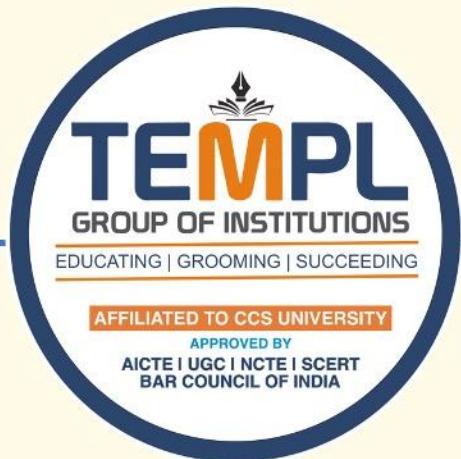
- In the following HTML snippet name the following: tag, attribute, attribute value and value: <font size="“+1”>Test font</font>
  - Tag = font
  - Attribute = size
  - Attribute value = +1
  - Value = Test font
  - Why does </font> appear at the end?
    - To close out the tag in the HTML code

# 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
- <ul>...</ul> - defines an unordered list
- <ol>...</ol> - defines an ordered list
- <li>...</li> - defines a list item
- <a href>...</a> - hyperlink
- <img src..../> - defines an image

# courses.shu.edu



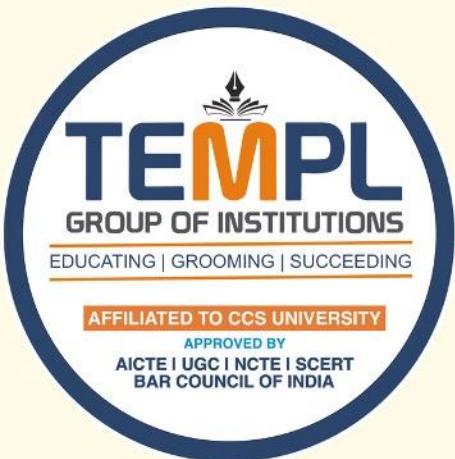
- Your own web space
- <http://courses.shu.edu/BITM3730/marinom6/>
- Above is my web space
- Yours will be the same except your Pirate Net username will replace marinom6

# 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>

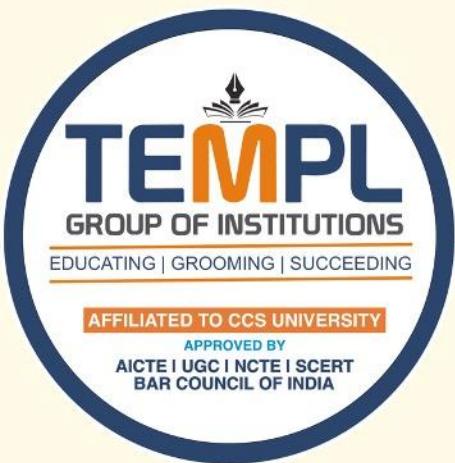
# Styles & Fonts

## 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>



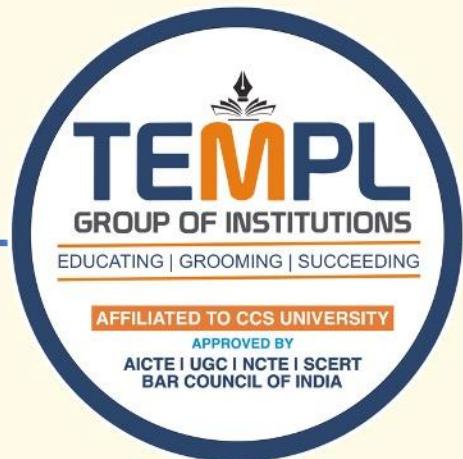
# Text Size & Alignment

## Size

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

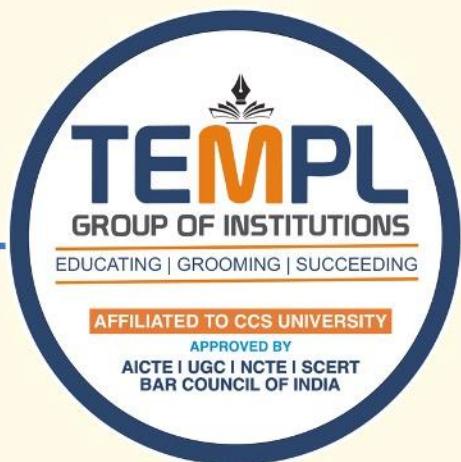
## Alignment

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

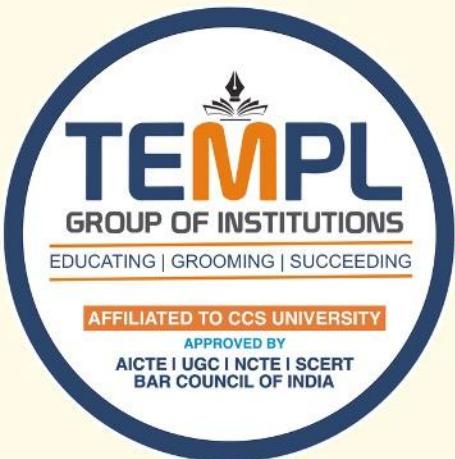


# Language

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



# Using Images



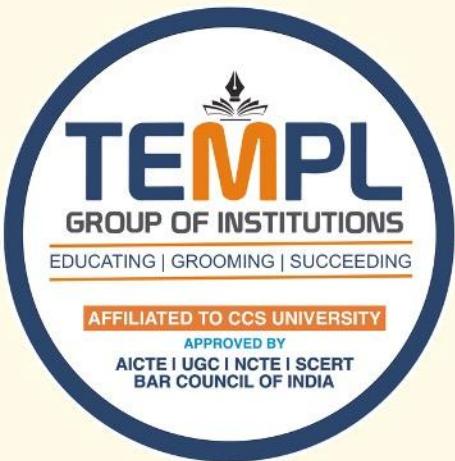
- 
- img src – image source
- alt – description
- width and height should be altered depending on needs

# Images As Background

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

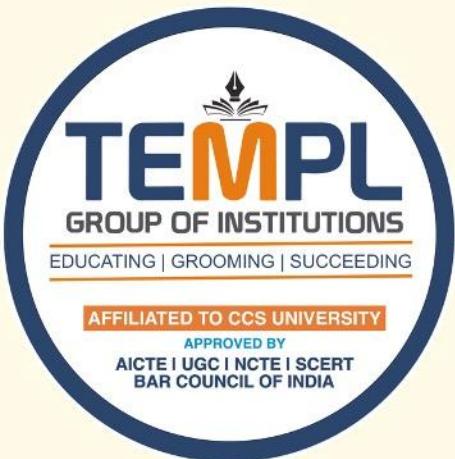


# Repeat Background



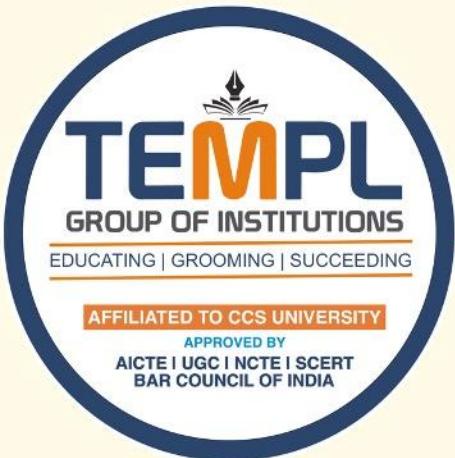
- <style>
- body {
- background-image: url('example\_img\_girl.jpg');
- background-repeat: **no-repeat**;
- }
- </style>

# 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]

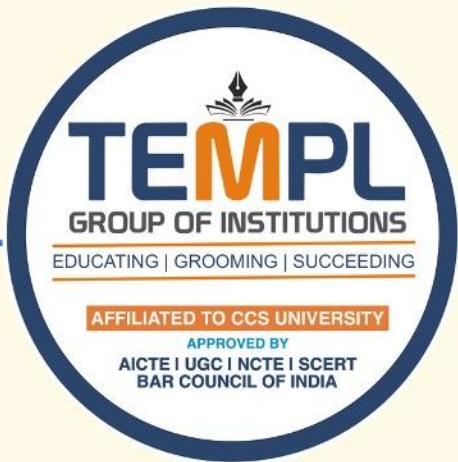
# Tags for building a table



- <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

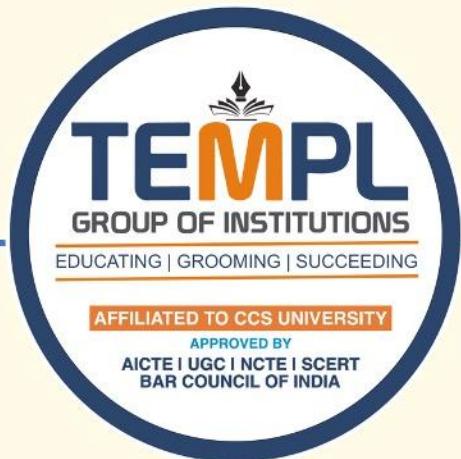
# <table></table> tag

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



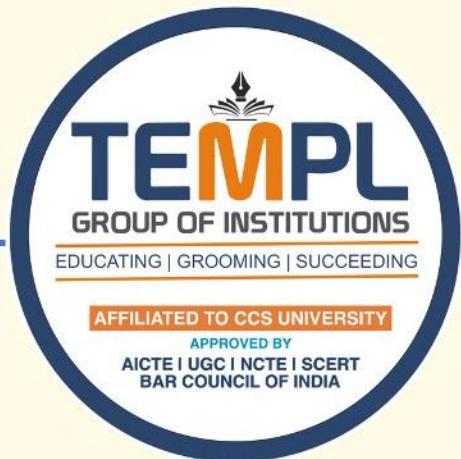
# <tr></tr> tag

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

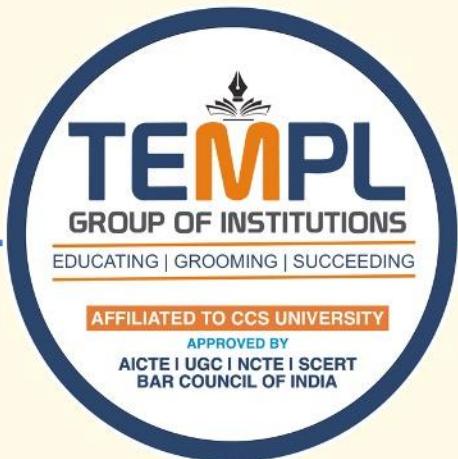


# <td></td> tag

- 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.

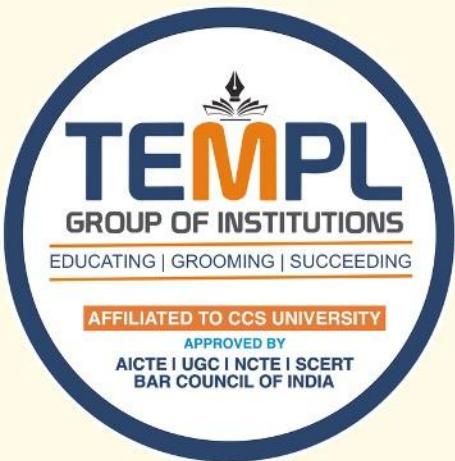


# <th></th> tag



- 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.

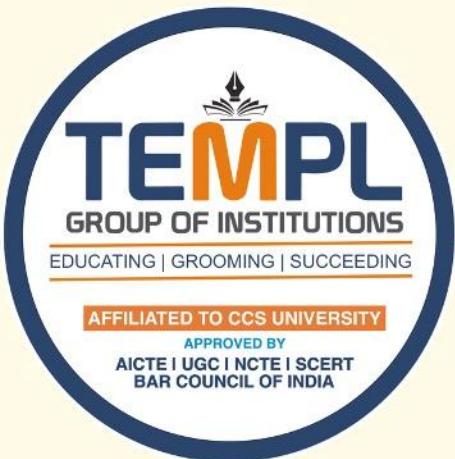
# Building an HTML file with a Table



Begin with basic code:

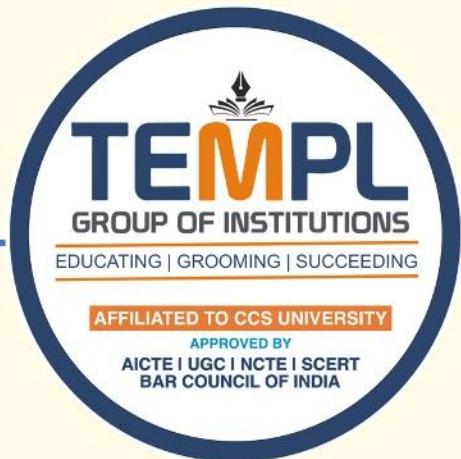
```
<html>  
<head>  
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">  
<title>New Page 1</title>  
</head>  
<body>  
</body>  
</html>
```

# Add Your Header



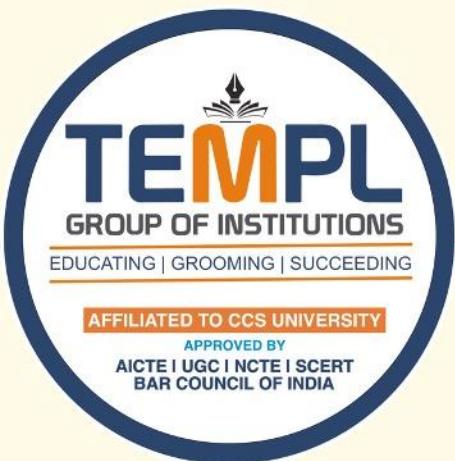
- <title>New Page 1</title>
- </head>
- <h1 align="center">Your Schedule</h1>
- <body>
- By adding the <h1></h1> code you have created an overall header

# 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>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- </tr>
- </table>

# Building the Table's Data



- <tr>
- <th>Instructor</th>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- </tr>
  
- <tr>
- <th>Number of Credits</th>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- <td>&nbsp;</td>
- </tr>

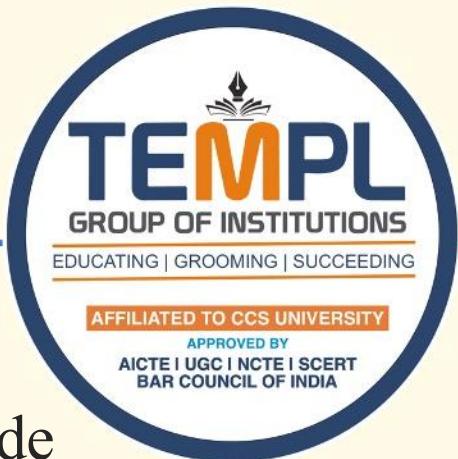
# Visual Table



## Professor Marino's Schedule

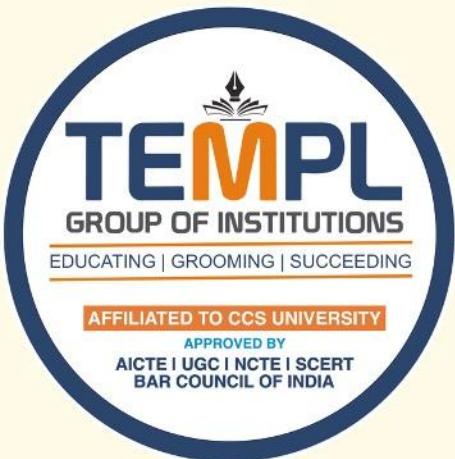
Course Name				
Instructor				
Number of Credits				

# Visual Table Notes



- Sizes of the cells in each row will change when you replace the &nbsp; 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]

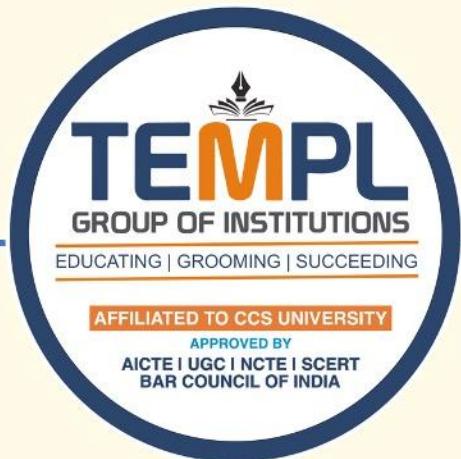
# HTML Review



- <a href="websitelink.com">Website Link</a> 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

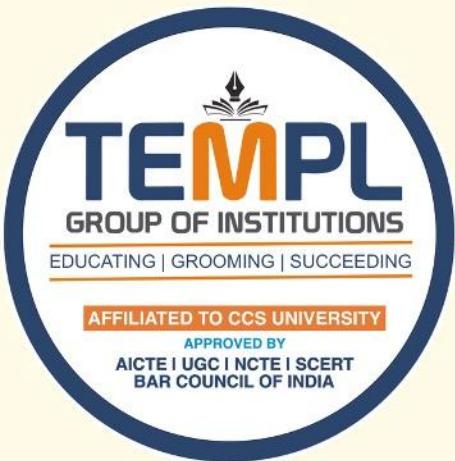


Create an HTML page called gallery.html with 16 images displayed.

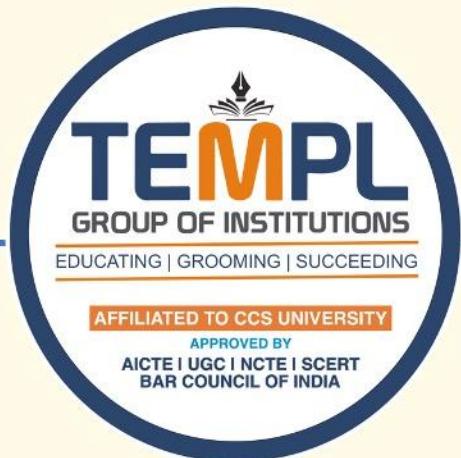
# Building our Gallery

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

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

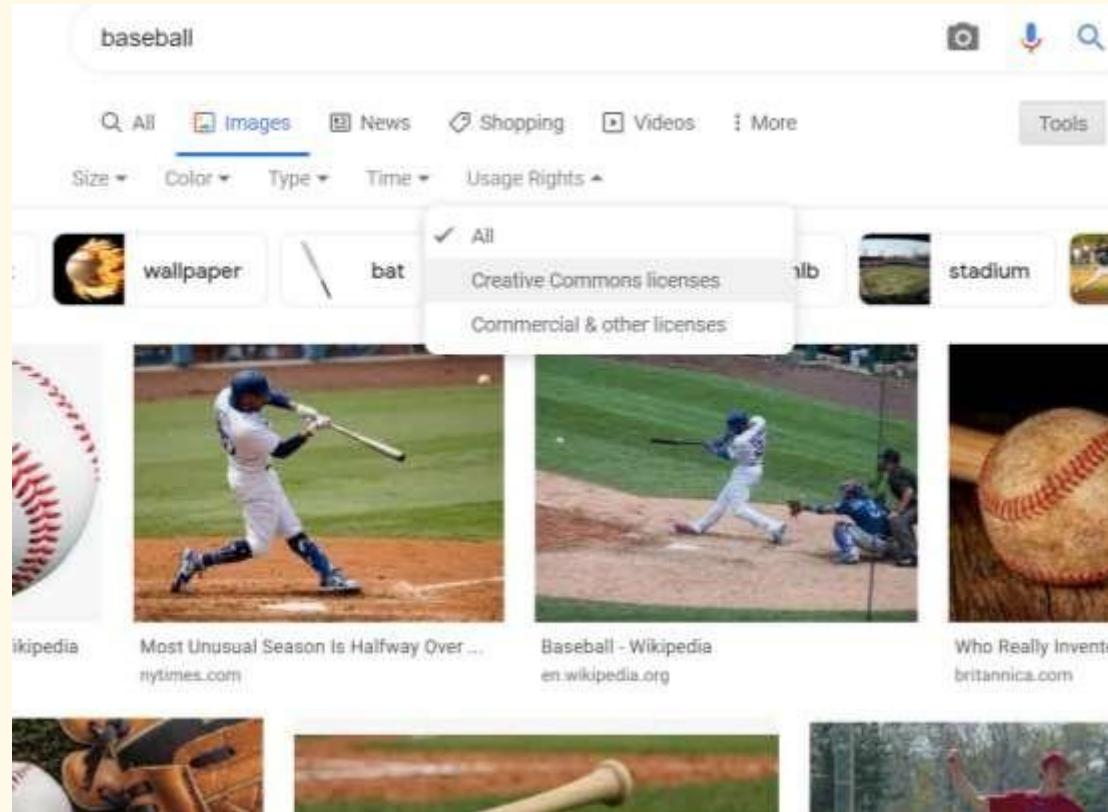
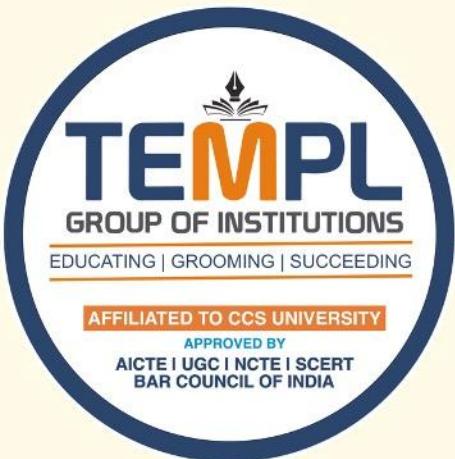


# Picture Gallery



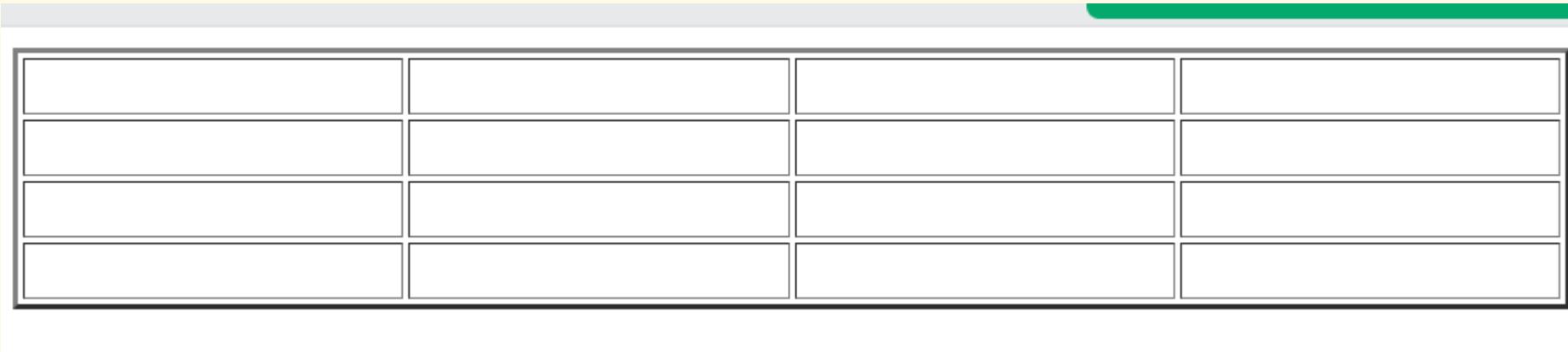
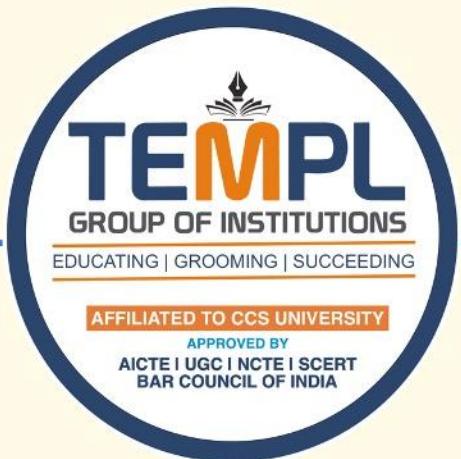
- The code on the previous slide only gives us 4 boxes
- How do we get our 16?

# Where do we get Images?

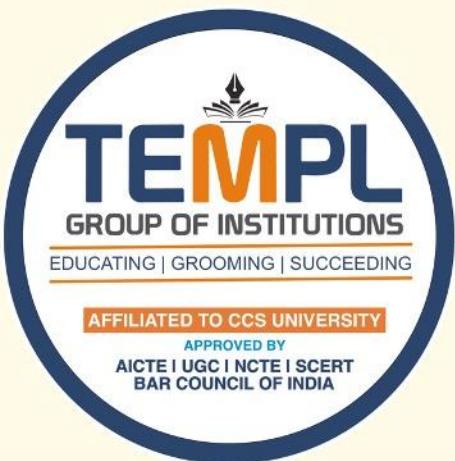


- <https://www.freeimages.com/search/baseball>
- Or search Google for free use images

# Current Gallery View



# Embedding Images



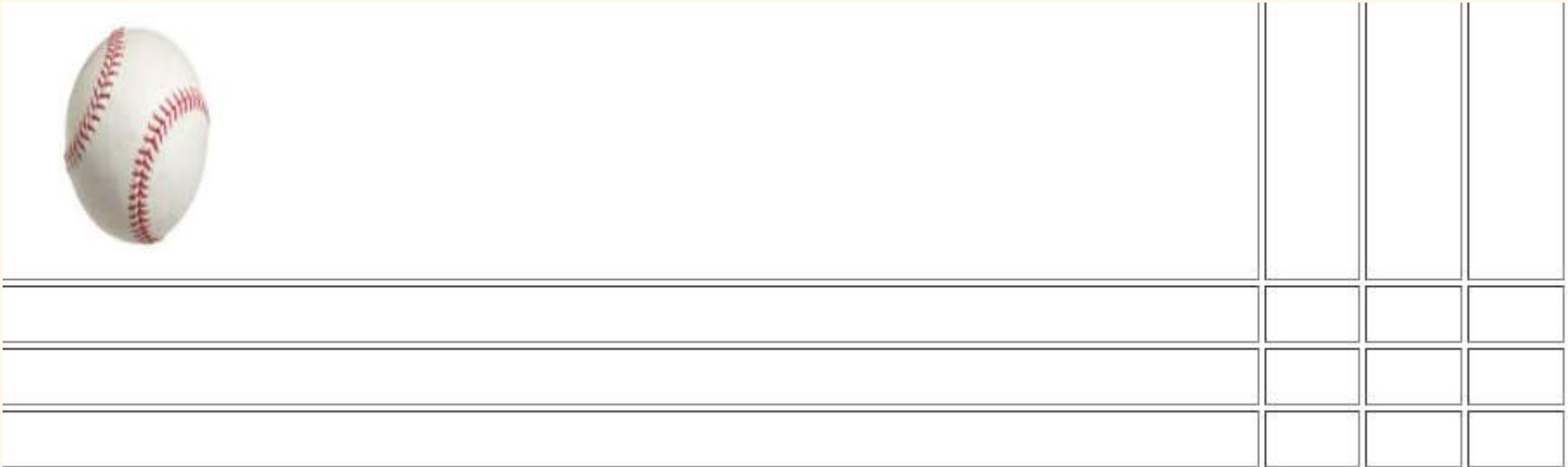
- 
- Where img src is your image source
- alt is your alternate description of the image
- width and height should be modified so that all pictures line up

# How it looks?

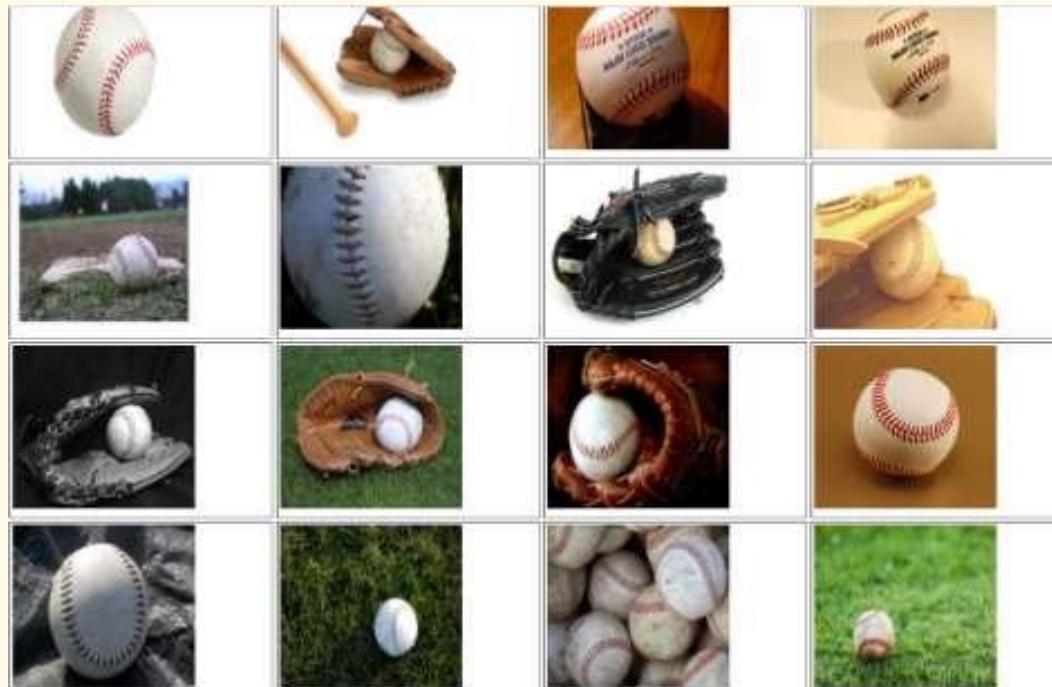
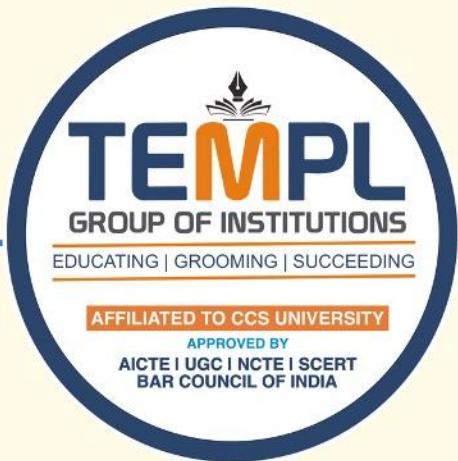


- <td></td>
- Use the direct image source for now, once we have an image saved to our web space the img src is much shorter like in previous example

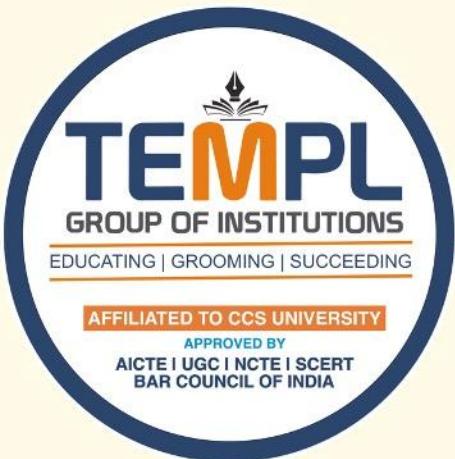
# Visual



# My Example Gallery Visual

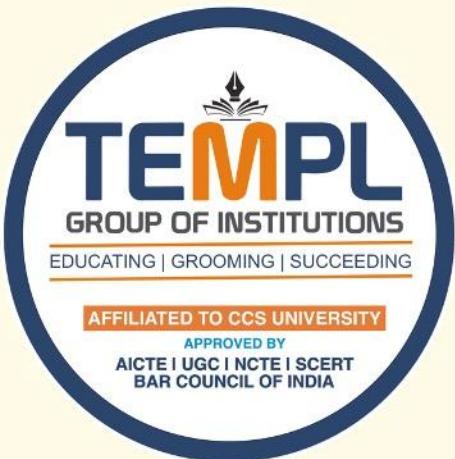


# Of Note



- 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.