



# HTML

## Hypertext markup Language

- Kind of textual document in which we can link other document .
- Constitute a collection of platform independent styles that defines various components of web document.
- Style indicated by markup tags.
- Plain text document can be created using any text editor.



## What is markup language?

- One where we can embed special tags of formatting commands in the text.
- Describes how the text should be displayed
- Special formatting codes ( called tags ) to adjust font, create bulleted lists, create forms, display image, create table etc.
-

# HTML Tags

The left and right angle brackets are used to enclose all tags.

Two classes of Tags:

- Those which appear in pairs
- <tagname> Your Text</tagname>
- <i> Good Morning </i>
- Those which appears individually
- 

Tags are not case sensitive

<Head> <head> <HEAD> all are equivalent

Browsers ignore all extra spaces.

HTML comment

<!-- Comment -->

# HTML Document

A HTML document consists of two major portion

- Head

- Contains information about the document, like title

- Body

- Contains the actual matter of the document

Gets displayed within the browser window

## Sample HTML Document

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

</head>
<body>
```

This is the content of the document.  
This is *italic* font  
</body>  
</html>



# HEADER TAGS

Header Tags -- Used for marking sections and subsections in a document.

<H1>Header 1 -- Giant-sized and bold </H1>

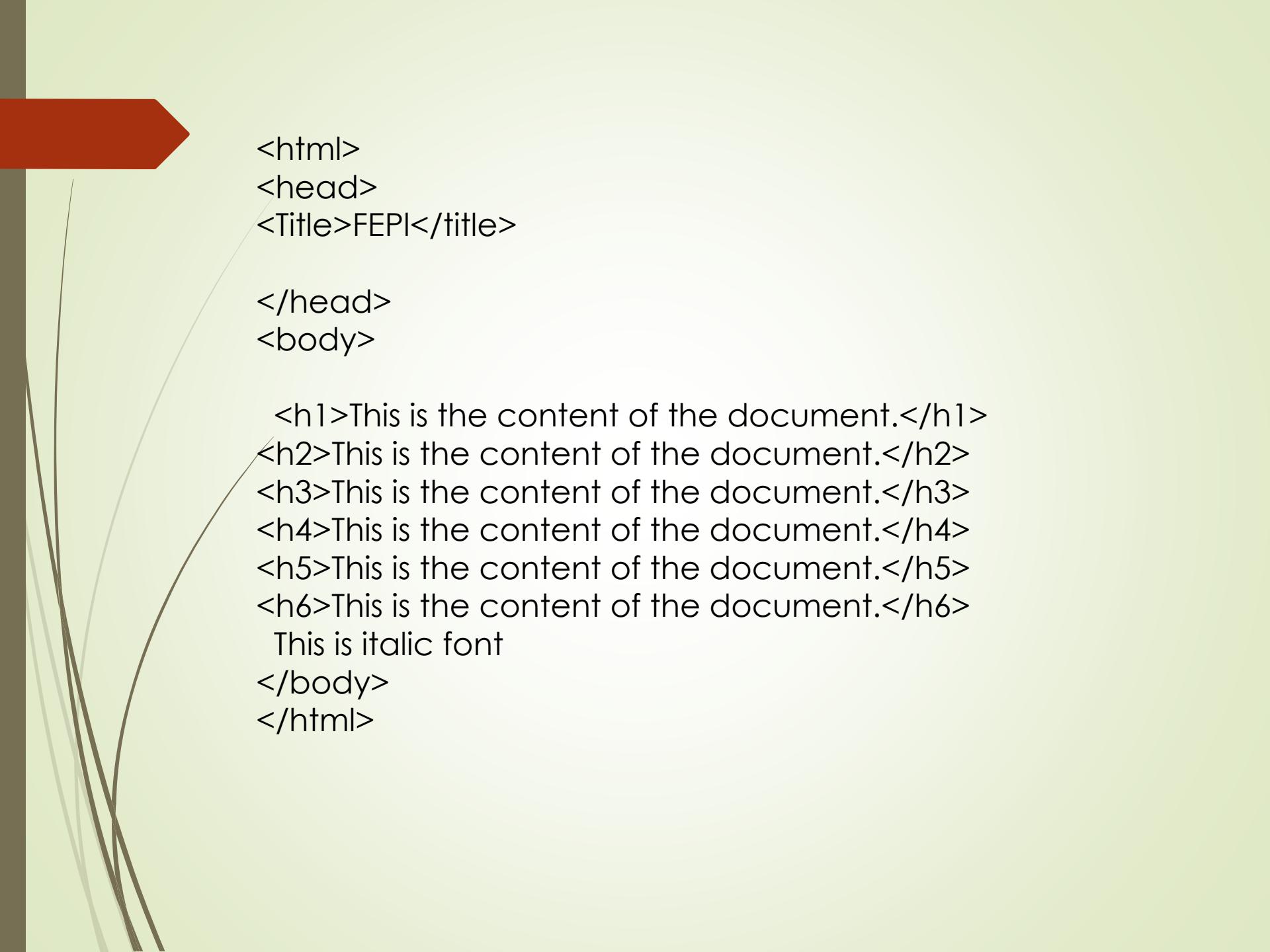
<H2>Header 2 -- Large and bold </H2>

<H3>Header 3 -- Normal-sized and bold </H3>

<H4>Header 4 -- Small and bold </H4>

<H5>Header 5 -- Very Small and bold </H5>

<H6>Header 6 -- Tiny and bold </H6>



```
<html>
<head>
<Title>FEPI</title>

</head>
<body>

<h1>This is the content of the document.</h1>
<h2>This is the content of the document.</h2>
<h3>This is the content of the document.</h3>
<h4>This is the content of the document.</h4>
<h5>This is the content of the document.</h5>
<h6>This is the content of the document.</h6>
    This is italic font
</body>
</html>
```



# **HEADER TAGS (CONT.)**

**H1 = Giant-sized and bold**

**H2 = Large and bold**

**H3 = Normal-sized and bold**

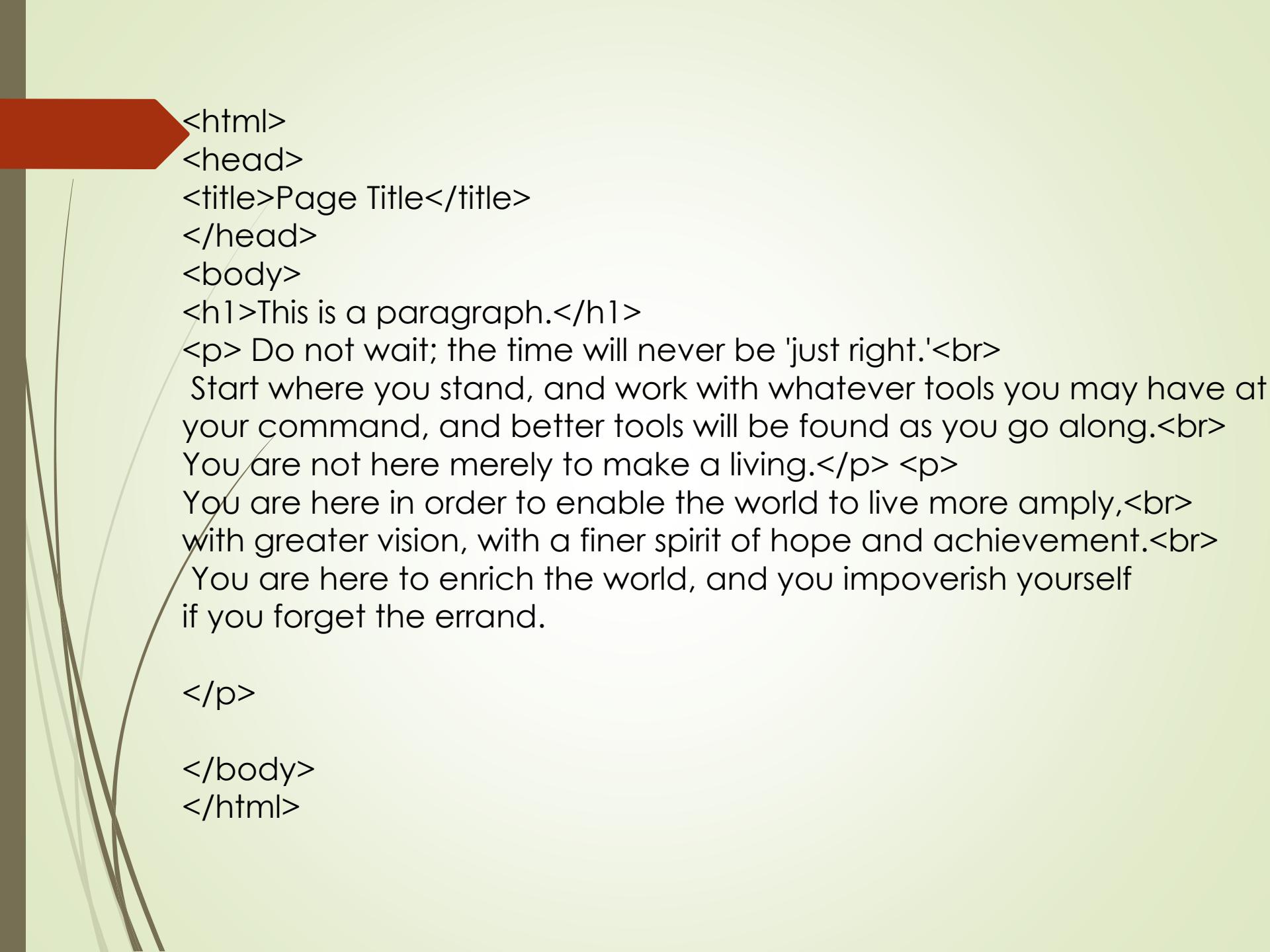
**H4 = Small and bold**

**H5 = Very Small and bold**

**H6 = Tiny and bold**

# BREAKING LINES AND PARAGRAPHS

- <P> text </P>
  - Paragraph tag
  - Most browsers render (process) this with blank lines between each paragraph
- <BR>
  - Line break tag
  - Used when the webmaster wants a carriage return but doesn't want a blank line to follow.



```
<html>
<head>
<title>Page Title</title>
</head>
<body>
<h1>This is a paragraph.</h1>
<p> Do not wait; the time will never be 'just right.'<br>
Start where you stand, and work with whatever tools you may have at
your command, and better tools will be found as you go along.<br>
You are not here merely to make a living.</p> <p>
You are here in order to enable the world to live more amply,<br>
with greater vision, with a finer spirit of hope and achievement.<br>
You are here to enrich the world, and you impoverish yourself
if you forget the errand.

</p>

</body>
</html>
```

# TEXT FORMATTING TAGS

Some basic text formatting styles:

## Tag

<I> Italics </I>  
<B> Bold </B>

<PRE> Preformatted Text </PRE>

<STRONG> Strong </STRONG>  
<ADDRESS> Address </ADDRESS>  
<CODE> Source Code </CODE>

## Result

*Italics*  
**Bold**

Preformatted Text

**Strong**  
*Address*  
Source Code

# FONT MODIFICATIONS

Web creators can also change the way text looks by using the <FONT> tag

SIZE="number" - changes size of the font; 1=smallest, 7 = largest

<FONT SIZE="7">Big</FONT> <FONT SIZE="1">Small</FONT>

Big Small

---

COLOR="color-name" - changes text color

<FONT COLOR="red">This is red</FONT>

This is red

---

FACE="font-name" - changes font

<FONT FACE="verdana">This is the verdana font;</FONT> <FONT FACE="chicago">this is the chicago font.</FONT>

This is the verdana font; this is chicago font.



## <FONT> MODIFICATIONS (CONT.)

One can combine font modifications:

```
<FONT SIZE="7" FACE="courier" COLOR="red">Big, Courier & Red</FONT>
```

**Big, Courier & Red**

```
<FONT SIZE="7"><FONT FACE="courier">Big & Courier</FONT> - Just  
Big</FONT>
```

**Big & Courier - Just Big**

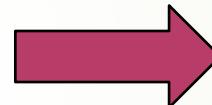
# LISTS -- UNORDERED LISTS

Unordered lists:

<UL>

<LI>Item One  
<LI>Item Two  
<LI>Item Three  
<LI>Item Four

</UL>



- Item One
- Item Two
- Item Three
- Item Four

## ***Unordered List Attributes:***

type="disc/circle/square"

- Disc (default)       Circle      ■ Square

# LISTS -- ORDERED LISTS

## Ordered (Numbered) Lists

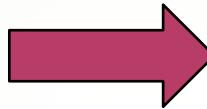
<OL>

<LI> Item One

<LI> Item Two

<LI> Item Three

<LI> Item Four



1. Item One

2. Item Two

3. Item Three

4. Item Four

</OL>

### ***Ordered List Attributes:***

**type="i/l/a/A/1"**

i. Item One

ii. Item Two

iii. Item Three

iv. Item Four

**start="xx"**

- This attribute lets you specify which number/letter will start the list



# LISTS -- DEFINITION LISTS

```
<DL>
  <DT>List Name One
    <DD>This is where information about List Name One would go</DD>
  </DT>
  <DT>List Name Two
    <DD>This is where information about List Name Two would go</DD>
  </DT>
</DL>
```



```
<html>
<body>
<dl>
    <dt>Coffee</dt>
    <dd>Black hot drink</dd>
    <dt>Milk</dt>
    <dd>White cold drink</dd>
</dl>

</body>
</html>
```



# LINKS

The anchor tag <A> is used to link one document to another or from one part of a document to another part of the same document.

## Basic Links:

```
<A HREF="www.stanford.edu/">Stanford University</A>
```

## Inter-document Links:

```
<A HREF="#spot">Point to 'spot' in this document</A>
```

Defining a point in a document:

```
<A id="spot">Spot</A>
```

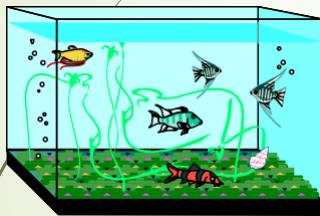
## Email links:

```
<A HREF="mailto:someone@somehost.com">Email  
someone@somehost.com</A>
```

# GRAPHICS

To have a graphic appear on a webpage, web designers must put the <IMG> tag in with the address where the graphic "lives":

```
<IMG SRC="http://www.someplace.com/images/fish.gif">
```



Graphics attributes:

alt="text": insert a description of the graphic for those who are using browsers that cannot process images (e.g., page readers for the blind)

width="xx/xx%": width in pixels/percentage

height="xx/xx%": height in pixels/percentage

border="xx": pixel length of the border surrounding the image.

hspace="xx": places a buffer of space horizontally around the image

vspace="xx": places a buffer of space vertically around the image

align="top/middle/bottom/right/left": aligns image in relation to the text (see next 2 slides)

# GRAPHICS (CONT.)

```
All about  
Fish
```

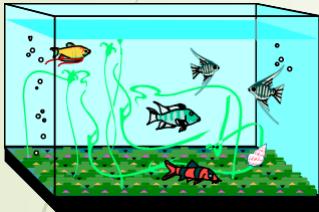
```
All  
about Fish
```

```
All  
about Fish
```

# GRAPHICS (CONT.)

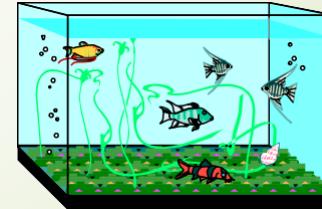
```

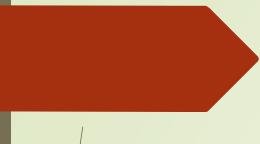
```



```

```





# DEFINING A TABLE STRUCTURE

- The first step to creating a table is to specify the table structure:
  - the number of rows and columns
  - the location of column headings
  - the placement of a table caption
- Once the table structure is in place, you can start entering data into the table.



## USING THE <TABLE>, <TR>, AND <TD> TAGS

- Graphical tables are enclosed within a two-sided <table> tag that identifies the start and ending of the table structure.
- Each row of the table is indicated using a two-sided <tr> (for table row).
- Within each table row, a two-sided <td> (for table data) tag indicates the presence of individual table cells.

# THE GENERAL TABLE SYNTAX

- ▶ <table>
- ▶ <tr>
- ▶ <td> First Cell </td>
- ▶ <td> Second Cell </td>
- ▶ </tr>
- ▶ <tr>
- ▶ <td> Third Cell </td>
- ▶ <td> Fourth Cell </td>
- ▶ </tr>
- ▶ </table>



# COLUMNS WITHIN A TABLE

- HTML does not provide a tag for table columns.
- In the original HTML specifications, the number of columns is determined by how many cells are inserted within each row.
  - for example, if you have four <td> tags in each table row, that table has four columns
- Later versions of HTML provide increased support for controlling the appearance of table columns.

# HTML STRUCTURE OF A TABLE

beginning of the table structure

first row of six in the table

end of the table structure

```
<TABLE>
<TR>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
</TR>
<TR>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
</TR>
<TR>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
  <TD></TD>
</TR>
</TABLE>
```

table cells

You do not need to indent the `<td>` tags or place them on separate lines, but you may find it easier to interpret your code if you do so.

After the table structure is in place, you're ready to add the text for each cell.



## CREATING HEADINGS WITH THE `<TH>` TAG

- HTML provides the `<th>` tag for table headings.
- Text formatted with the `<th>` tag is centered within the cell and displayed in a boldface font.
- The `<th>` tag is most often used for column headings, but you can use it for any cell that you want to contain centered boldfaced text.

# ADDING TABLE HEADINGS TO THE TABLE

Text in cells formatted with the `<th>` tag is bold and centered above each table column.

table headings

```
<table>
  <tr>
    <th>Group</th>
    <th>Runner</th>
    <th>Time</th>
    <th>Origin</th>
  </tr>
  <tr>
    <td>Men</td>
    <td>1. Peter Teagan</td>
    <td>2:12:34</td>
    <td>San Antonio, Texas</td>
  </tr>
```

Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington

# CREATING A TABLE CAPTION

- HTML allows you to specify a caption for a table.
- The syntax for creating a caption is: `<caption align="alignment">caption text</caption>`
  - ***alignment*** indicates the caption placement
  - a value of “***bottom***” centers the caption below the table
  - a value of “***top***” or “***center***” centers the caption above the table
  - a value of “***left***” or “***right***” place the caption above the table to the left or right

# TABLE CAPTIONS

- The `<caption>` tag works only with tables, the tag must be placed within the table structure.
- Captions are shown as normal text without special formatting.
- Captions can be formatted by embedding the caption text within other HTML tags.
  - for example, place the caption text within a pair of `<b>` and `<i>` tags causes the caption to display as bold and italic

# RESULT OF A TABLE CAPTION

```
<table>
  <caption align="top"><b>Race Results</b></caption>
  <tr>
    <th>Group</th>
    <th>Runner</th>
    <th>Time</th>
    <th>Origin</th>
  </tr>
```

caption text

caption will be centered above the table

Race Results			
Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington



```
<html>
<body>
<h2>Basic HTML Table</h2>
<table>
<caption align="top"> My Table </caption>
<tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
</tr>
<tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
</tr>
<tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
</tr>
</table>
</body>
</html>
```

## ADDING A TABLE BORDER

- By default, browsers display tables without table borders.
- A table border can be added using the border attribute to the `<table>` tag.
- The syntax for creating a table border is: `<table border="value">`
  - **value** is the width of the border in pixels
- The **size** attribute is optional; if you don't specify a size, the browser creates a table border 1 pixel wide.

# TABLES WITH DIFFERENT BORDERS

## VALUES

This figure shows the effect on a table's border when the border size is varied.

A B  
C D

0 pixels

A	B
C	D

1 pixel

A	B
C	D

5 pixels

A	B
C	D

10 pixels

# ADDING A 5-PIXEL BORDER TO A TABLE

```
<table border="5">
  <caption align="top"><b>Race Results</b></caption>
  <tr>
    <th>Group</th>
    <th>Runner</th>
    <th>Time</th>
    <th>Origin</th>
  </tr>
```

**Only the outside border is affected by the border attribute; the internal gridlines are not affected.**

Race Results			
Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington

# CONTROLLING CELL SPACING

- The **cellspacing** attribute controls the amount of space inserted between table cells.
- The syntax for specifying the cell space is:

```
<table cellspacing="value">
```

- value is the width of the interior borders in pixels
- the default cell spacing is 2 pixels

- Cell spacing refers to the space between the cells.

## DEFINING CELL PADDING

- To control the space between the table text and the cell borders, add the **cellpadding** attribute to the table tag.
- The syntax for this attribute is:

```
<table cellpadding="value">
```

- **value** is the distance from the table text to the cell border, as measured in pixels
  - the default cell padding value is 1 pixel
- 
- Cell padding refers to the space within the cells.

# TABLES WITH DIFFERENT CELL SPACING VALUES

different cell spacing values

A	B
C	D

0 pixels

A	B
C	D

1 pixel

A	B
C	D

5 pixels

A	B
C	D

10 pixels

different cell padding values

A	B
C	D

0 pixels

A	B
C	D

1 pixel

A	B
C	D

5 pixels

A	B
C	D

10 pixels



```
<html>
<body>
<h2>Basic HTML Table</h2>
<table border="3" cellspacing="6">
<caption align="top"> My Table </caption>
<tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
</tr>
<tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
</tr>
<tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
</tr>
</table>
</body>
</html>
```



```
<html>
<body>
<h2>Basic HTML Table</h2>
<table border="3" cellpadding="6">
<caption align="top"> My Table </caption>
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Age</th>
</tr>
<tr>
<td>Jill</td>
<td>Smith</td>
<td>50</td>
</tr>
<tr>
<td>Eve</td>
<td>Jackson</td>
<td>94</td>
</tr>
</table>
</body>
</html>
```

## TABLE FRAMES AND RULES

- With the frame and rule attributes you can control how borders and gridlines are applied to the table.
- The **frames** attribute allows you to determine which sides of the table will have borders.
- The frame attribute syntax is: **<table frame="type">**
  - type is either “box” (the default), “above”, “below”, “hsides”, “vsides”, “lhs”, “rhs”, or “void”

# VALUES OF THE FRAME ATTRIBUTE

FRAME VALUE	DESCRIPTION
BOX	Draws borders around all four sides
ABOVE	Draws only the top border
BELOW	Draws only the bottom border
HSIDES	Draws both the top and bottom borders (the horizontal sides)
LHS	Draws only the left-hand side
RHS	Draws only the right-hand side
VSIDES	Draws both the left and right borders (the vertical sides)
VOID	Does not draw borders on any of the four sides

# EFFECT OF DIFFERENT FRAME VALUES

This figure shows the effect of each of the frame values on the table grid.

A	B	C
D	E	F
G	H	I

frame="box"

A	B	C
D	E	F
G	H	I

frame="above"

A	B	C
D	E	F
G	H	I

frame="below"

A	B	C
D	E	F
G	H	I

frame="hsides"

A	B	C
D	E	F
G	H	I

frame="lhs"

A	B	C
D	E	F
G	H	I

frame="rhs"

A	B	C
D	E	F
G	H	I

frame="vsides"

A	B	C
D	E	F
G	H	I

frame="void"

# CREATING FRAMES AND RULES CONTINUED

- The **rules** attribute lets you control how the table gridlines are drawn (not supported by Netscape)
- The syntax of the rules attribute is:

```
<table rules="type">
```

type is either “all”, “rows”, “cols”, or “none”

**the effect of each of the rules attribute values on a table**

A	B	C
D	E	F
G	H	I

rules="all"

A	B	C
D	E	F
G	H	I

rules="rows"

A	B	C
D	E	F
G	H	I

rules="cols"

A	B	C
D	E	F
G	H	I

rules="none"

# WORKING WITH TABLE AND CELL SIZE

- The size of a table is determined by text it contains in its cells.
- By default, HTML places text on a single line.
- As you add text in a cell, the width of the column and table expands to the edge of the page.
  - once the page edge is reached, the browser reduces the size of the remaining columns to keep the text to a single line.
- You can insert line break, paragraph, or other tags within a cell.
- When the browser can no longer increase or decrease the size of the column and table it wraps the text to a second line.
- As more text is added, the height of the table expands to accommodate the additional text.
- But, you can manually define the size of the table and its cells.

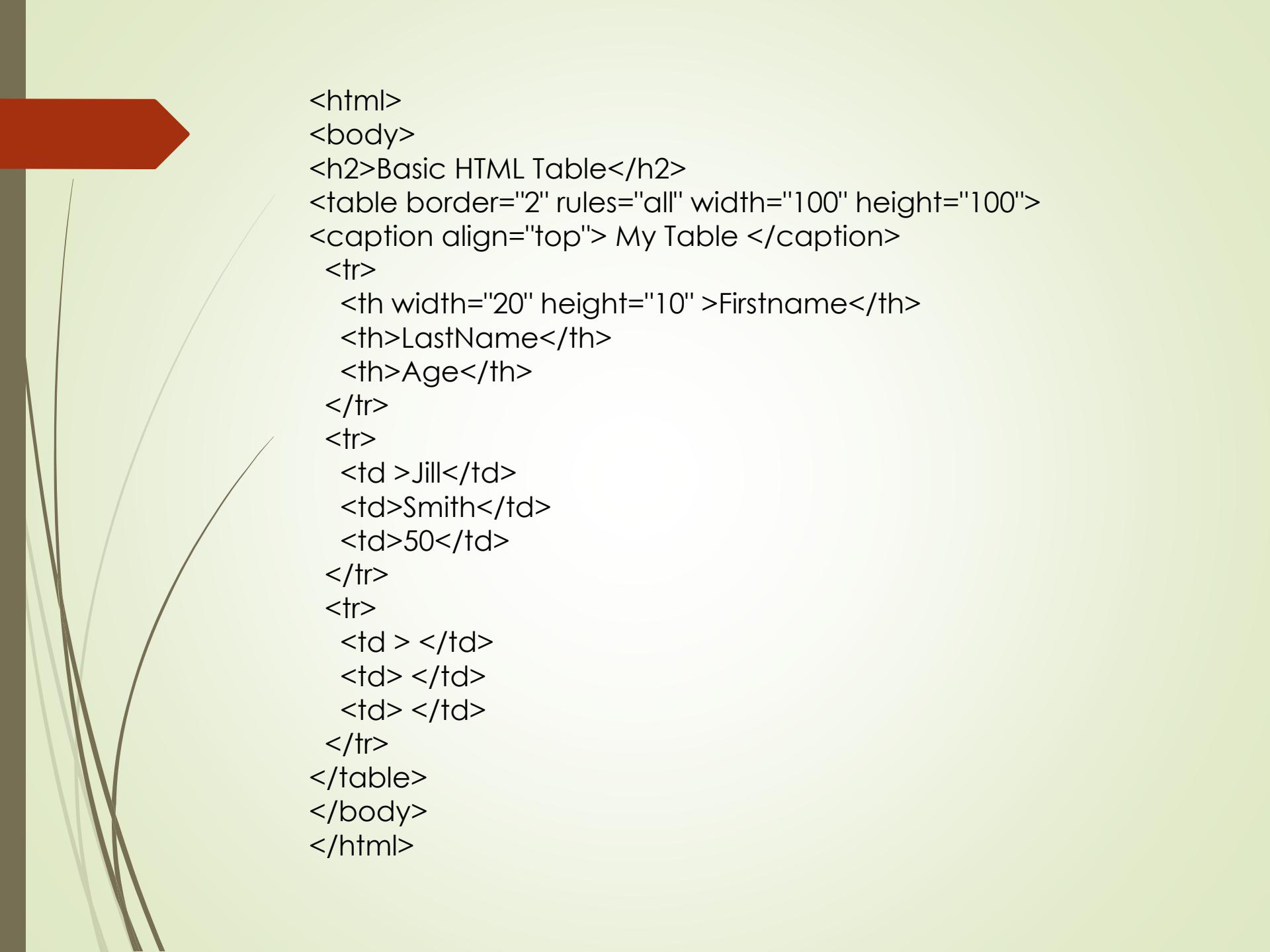
# DEFINING THE TABLE SIZE

- The syntax for specifying the table size is:  
`<table width="size" height="size">`
  - **size** is the width and height of the table as measured in pixels or as a percentage of the display area
- To create a table whose height is equal to the entire height of the display area, enter the attribute `height="100%"`.
- If you specify an absolute size for a table in pixels, its size remains constant, regardless of the browser or monitor settings used.

```
<!-- <table width="size" height="size">-->
<html>
<body><h2>Basic HTML Table</h2>
<table border="2" rules="all" width="300" height="100">
<caption align="top"> My Table </caption>
<tr>
  <th>Firstname</th>
  <th>Lastname</th>
  <th>Age</th>
</tr>
<tr>
  <td>Jill</td>
  <td>Smith</td>
  <td>50</td>
</tr>
<tr>
  <td>Eve</td>
  <td>Jackson</td>
  <td>94</td>
</tr>
</table>
</body>
</html>
```

## DEFINING CELL AND COLUMN SIZES

- To set the width of an individual cell, add the **width** attribute to either the **<td>** or **<th>** tags.
- The syntax is: **width="value"**
  - value can be expressed in pixels or as a percentage of the table width
  - width value of 30% displays a cell that is 30% of the total width of table.
- The **height** attribute can also be used in the **<td>** or **<th>** tags to set the height of individual cells.
  - The height attribute is expressed either in pixels or as a percentage of the height of the table.
  - If you include more text than can be displayed within that height value you specify, the cell expands to display the additional text.



```
<html>
<body>
<h2>Basic HTML Table</h2>
<table border="2" rules="all" width="100" height="100">
<caption align="top"> My Table </caption>
<tr>
    <th width="20" height="10" >Firstname</th>
    <th>LastName</th>
    <th>Age</th>
</tr>
<tr>
    <td >Jill</td>
    <td>Smith</td>
    <td>50</td>
</tr>
<tr>
    <td > </td>
    <td> </td>
    <td> </td>
</tr>
</table>
</body>
</html>
```



# ALIGNING A TABLE ON THE WEB PAGE

- By default, a browser places a table on the left margin of a Web page, with surrounding text placed above and below the table.
- To align a table with the surrounding text, use the align attribute as follows: align=“alignment”
  - alignment equals “left”, “right”, or “center”
  - left or right alignment places the table on the margin of the Web page and wraps surrounding text to the side
  - center alignment places the table in the horizontal center of the page, but does not allow text to wrap around it
- The align attribute is similar to the align attribute used with the <img> tag.

# RESULTS OF A RIGHT-ALIGNED TABLE

```
<table border="5" cellspacing="0" cellpadding="4" width="500" align="right">
<caption align="top"><b>Race Results</b></caption>
<tr>
  <th width="50">Group</th>
  <th>Runner</th>
  <th>Time</th>
  <th>origin</th>
</tr>
```



## Local Woman Wins Marathon

Park City native, **Laura Blake**, won the 27<sup>th</sup> Front Range Marathon over an elite field of the best long distance runners in the country. Laura's time of 2 hr. 28 min. 21 sec. was only 2 minutes off the women's course record set last year by Sarah Rawlings. Kathy Lasker and Lisa Peterson finished second and third, respectively. Laura's victory came on the heels of her performance at the NCAA Track and Field Championships, in which she placed second running for Colorado State.

In an exciting race, **Peter Teagan** of San Antonio, Texas, used a finishing kick to win the men's marathon for the second straight year, in a time of 2 hr. 12 min. 34 sec. Ahead for much of the race, Kyle Wills of Billings, Montana, finished second, when he could not match Teagan's finishing pace. Jason Wu of Cutler, Colorado, placed third in a very competitive field.

This year's race through downtown Boulder boasted the largest field in the marathon's history, with over 9500 men and 6700 women competing. Race conditions were perfect with low humidity and temperatures that never exceeded 85°.

### Race Results

Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington



# ALIGNING THE CONTENTS OF A TABLE

- By default, cell text is placed in the middle of the cell, aligned with the cell's left edge.
- By using the **align** and **valign** attributes, you can specify the text's horizontal and vertical placement.
- To align the text for a single column, you must apply the align attribute to every cell in that column.

# VALUES OF THE ALIGN AND VALIGN ATTRIBUTES

align="left"  
valign="top"

align="left"  
valign="middle"

align="left"  
valign="bottom"

align="center"  
valign="top"

align="center"  
valign="middle"

align="center"  
valign="bottom"

align="right"  
valign="top"

align="right"  
valign="middle"

align="right"  
valign="bottom"

```
<html>
<body>
<h2>Basic HTML Table</h2>
<table border="2" rules="all" width="300" height="100">
<caption align="top"> My Table </caption>
<tr>
  <th>Firstname</th>
  <th>Lastname</th>
  <th>Age</th>
</tr>
<tr>
  <td >Jill</td>
  <td>Smith</td>
  <td>50</td>
</tr>
<tr>
  <td align="right" valign="bottom">Eve</td>
  <td>Jackson</td>
  <td>94</td>
</tr>
</table>
</body>
</html>
```

[run](#)

# SPANNING ROWS AND COLUMNS

- To merge several cells into one, you need to create a **spanning cell**.
- A spanning cell is a cell that occupies more than one row or column in a table.
- Spanning cells are created by inserting the **rowspan** and **colspan** attribute in a **<td>** or **<th>** tag.
- The syntax for these attributes is:  
`rowspan="value" colspan="value"`
  - value is the number of rows or columns that the cell spans in the table

# EXAMPLE OF SPANNING CELLS

This cell spans two columns and two rows

This cell spans three rows

Today's Opinion Poll Question		Political Party		
		Democrat	Republican	Independent
"Do you favor or oppose increasing the minimum wage?"	Favor	70%	35%	55%
	Oppose	25%	60%	30%
	Unsure	5%	5%	15%

this cell spans three columns

# A TABLE STRUCTURE WITH A 57 ROW-SPANNING CELL

four table cells  
in the first row

only three table  
cells are required  
for the second and  
third rows

```
<table>
  <tr>
    <td rowspan="3">1: This cell spans three rows</td>
    <td>2</td>
    <td>3</td>
    <td>4</td>
  </tr>
  <tr>
    <td>5</td>
    <td>6</td>
    <td>7</td>
  </tr>
  <tr>
    <td>8</td>
    <td>9</td>
    <td>10</td>
  </tr>
</table>
```

HTML code

1: This cell spans three rows	2	3	4
	5	6	7
	8	9	10

resulting table

```
<html>
<body>
<h2>Basic HTML Table</h2>
<table border="2" rules="all" width="300" height="100">
<caption align="top"> My Table </caption>
<tr>
  <th rowspan="2" >Firstname</th>
  <th colspan="3">Lastname</th>
  <th>Age</th>
</tr>
<tr>
  <td colspan="2">Jill</td>
  <td>Smith</td>
  <td>50</td>
</tr>
<tr>
  <td rowspan="1" >Eve</td>
  <td>Jackson</td>
  <td colspan="3">94</td>
</tr>
</table>
</body>
</html>
```

[run](#)

# ADDING SPANNING CELLS TO A TABLE

59

```
<table border="5" cellspacing="0" cellpadding="4" width="500" align="right">
  <caption align="top"><b>Race Results</b></caption>
  <tr>
    <th colspan="2">Runner</th>
    <th>Time</th>
    <th>Origin</th>
  </tr>
  <tr>
    <td rowspan="3">Men</td>
    <td>1. Peter Teagan</td>
    <td align="right">2:12:34</td>
    <td>San Antonio, Texas</td>
  </tr>
  <tr>
    <td>2. Kyle Wills</td>
    <td align="right">2:13:05</td>
    <td>Billings, Montana</td>
  </tr>
  <tr>
    <td>3. Jason Wu</td>
    <td align="right">2:14:28</td>
    <td>Cutler, Colorado</td>
  </tr>
  <tr>
    <td rowspan="3">Women</td>
    <td>1. Laura Blake</td>
    <td align="right">2:28:21</td>
    <td>Park City, Colorado</td>
  </tr>
  <tr>
    <td>2. Kathy Lasker</td>
    <td align="right">2:30:11</td>
    <td>Chicago, Illinois</td>
  </tr>
  <tr>
    <td>3. Lisa Peterson</td>
    <td align="right">2:31:14</td>
    <td>Seattle, Washington</td>
  </tr>
</table>
```

Race Results			
	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
	2. Kyle Wills	2:13:05	Billings, Montana
	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
	2. Kathy Lasker	2:30:11	Chicago, Illinois
	3. Lisa Peterson	2:31:14	Seattle, Washington

# ANOTHER EXAMPLE OF SPANNING

60

CELLS

```
<TR>
  <TD BGCOLOR=YELLOW ROWSPAN=2>Gargoyle Judge</TD>
  <TD WIDTH=60>48222</TD>
  <TD>Bust</TD>
  <TD>Interior Plaster</TD>
  <TD ALIGN=RIGHT WIDTH=50>$140</TD>
</TR>
<TR>
  <TD WIDTH=60>48223</TD>
  <TD>Bust</TD>
  <TD>Gothic Stone</TD>
  <TD ALIGN=RIGHT WIDTH=50>$155</TD>
</TR>
</TABLE>
```

Here is a sample of our products

Name	Item #	Type	Finish	Price
Bacchus	48059	Wall Mount	Interior Plaster	\$95
Praying Gargoyle	48159	Garden Figure	Gothic Stone	\$125
Gargoyle Judge	48222	Bust	Interior Plaster	\$140
	48223	Bust	Gothic Stone	\$155

# ANOTHER EXAMPLE OF SPANNING

61

## CELLS

```
<TABLE BORDER=10 CELLSPACING=0 CELLPADDING=4 ALIGN=CENTER WIDTH=550  
BGCOLOR=WHITE>  
<CAPTION ALIGN=TOP>Here is a sample of our products</CAPTION>  
<TR BGCOLOR="#33CC66">  
    <TH>Name</TH>  
    <TH WIDTH=60>Item #</TH>  
    <TH COLSPAN=2>Type and Finish</TH>  
    <TH WIDTH=50>Price</TH>  
</TR>
```

Here is a sample of our products

Name	Item #	Type and Finish	Price
Bacchus	48059	Wall Mount	Interior Plaster \$95
Praying Gargoyle	48159	Garden Figure	Gothic Stone \$125
Gargoyle Judge	48222	Bust	Interior Plaster \$140
	48223	Bust	Gothic Stone \$155

# APPLYING A BACKGROUND COLOR

- Table elements support the **bgcolor** attribute.
- To specify a background color for all of the cells in a table, all of the cells in a row, or for individual cells, by adding the bgcolor attribute to either the **<table>**, **<tr>**, **<td>**, or **<th>** tags as follows:

```
<table bgcolor="color">  
<tr bgcolor="color">  
<td bgcolor="color">  
<th bgcolor="color">
```

- color is either a color name or hexadecimal color value

# SPECIFYING TABLE, ROW, AND CELL COLORS

```
<table border="5" cellspacing="0" cellpadding="4" width="500" align="right" bgcolor="white">
<caption align="top"><b>Race Results</b></caption>
<tr bgcolor="yellow">
  <th colspan="2">Runner</th>
  <th>Time</th>
  <th>Origin</th>
</tr>
<tr>
  <td rowspan="3" valign="top" bgcolor="lightblue">Men</td>
  <td>1. Peter Teagan</td>
  <td align="right">2:12:34</td>
  <td>San Antonio, Texas</td>
</tr>
<tr>
  <td>2. Kyle Wills</td>
  <td align="right">2:13:05</td>
  <td>Billings, Montana</td>
</tr>
<tr>
  <td>3. Jason Wu</td>
  <td align="right">2:14:28</td>
  <td>Cutler, Colorado</td>
</tr>
<tr>
  <td rowspan="3" valign="top" bgcolor="lightgreen">Women</td>
  <td>1. Laura Blake</td>
  <td align="right">2:28:21</td>
  <td>Park City, Colorado</td>
</tr>
<tr>
  <td>2. Kathy Lasker</td>
  <td align="right">2:30:11</td>
  <td>Chicago, Illinois</td>
</tr>
<tr>
  <td>3. Lisa Peterson</td>
  <td align="right">2:31:14</td>
  <td>Seattle, Washington</td>
</tr>
</table>
```

# SPECIFYING TABLE, ROW, AND CELL COLORS

Race Results			
	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
	2. Kyle Wills	2:13:05	Billings, Montana
	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
	2. Kathy Lasker	2:30:11	Chicago, Illinois
	3. Lisa Peterson	2:31:14	Seattle, Washington

# THE BORDERCOLOR ATTRIBUTE

- By default, table borders are displayed in two shades of gray that create a three-dimensional effect.

- The syntax for the bordercolor attribute is:

```
<table bordercolor="color">
```

- color* is an HTML color name or hexadecimal color value

- Internet Explorer and Netscape apply this attribute differently.

```
<table border="10" bordercolor="blue">
```

A	B	C
D	E	F
G	H	I

Internet Explorer

A	B	C
D	E	F
G	H	I

Netscape

# APPLYING A TABLE BACKGROUND

- Add a background image to your tables using the **background** attribute.
- A background can be applied to the entire table or to a cell.



A	B	C
D	E	F
G	H	I

```
<table background="parch.jpg">
```

A	B	C
D	E	F
G	H	I

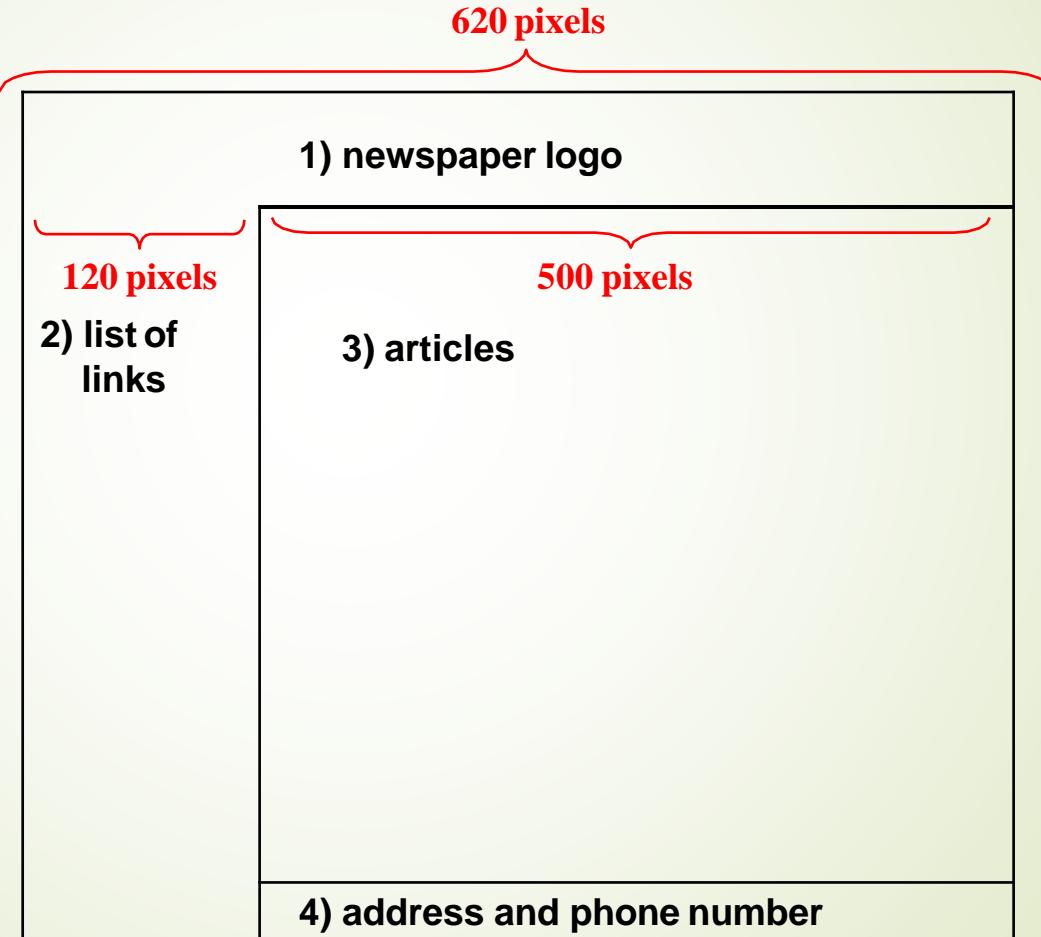
```
<td background="parch.jpg">
```

# DESIGNING A PAGE LAYOUT WITH 67 TABLES

- HTML tables are most often used to define the layout of an entire Web page.
- If you want to design a page that displays text in newspaper style columns, or separates the page into distinct sections, you'll find tables an essential and useful tool.

# TABLE LAYOUT OF A WEB PAGE

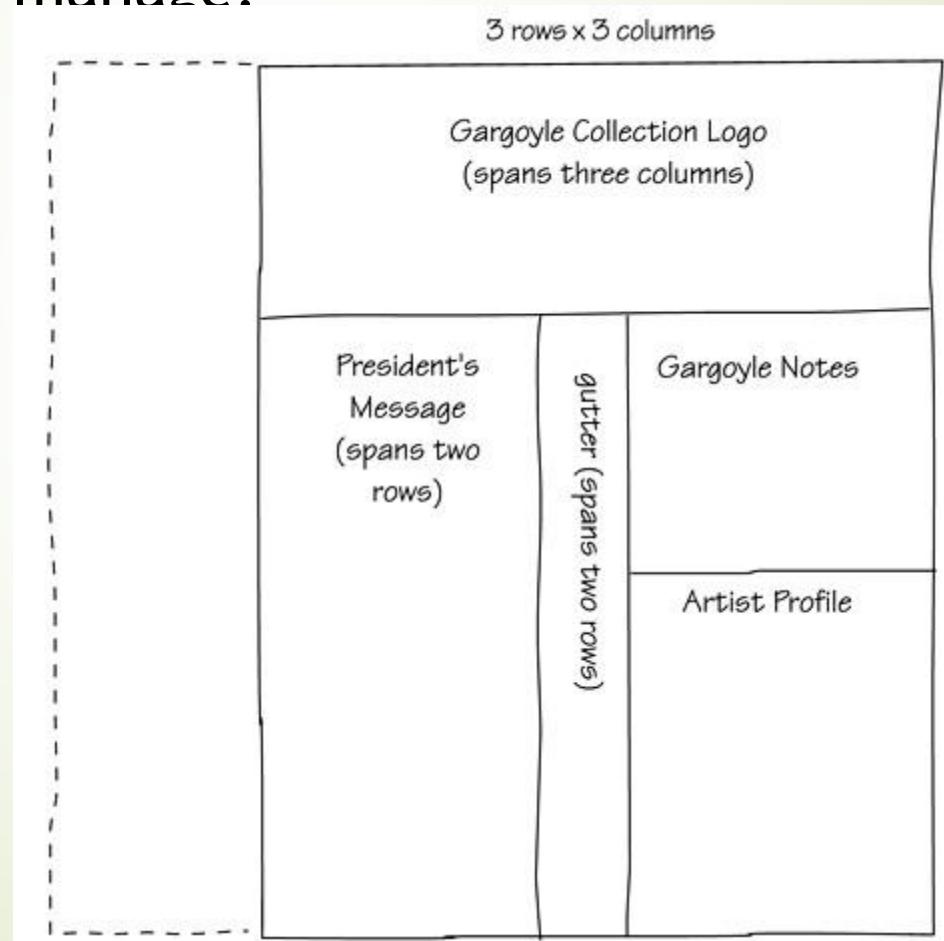
a sample table layout  
of a Web page.



# USING NESTED TABLE

- Tables can be created within another table making the Web page easier to manage.

a sketch of a web page using nested tables



# AN EXAMPLE OF THE CONTENTS

```

<TR>
  <!--List of Hypertext Links-->
  <TD WIDTH=165 VALIGN=TOP>
    <IMG SRC="MAA2.jpg" WIDTH=144 HEIGHT=25 ALT="Middle Age Arts">
    <H4><FONT COLOR=YELLOW>Middle Age Arts</FONT></H4>
    <FONT COLOR=WHITE>
      <A HREF="Index.htm">Home Page</A><BR>
      <A HREF="Catalog.htm">View the catalog</A><BR>
      <A HREF="Orders.htm">Place an order</A><BR>
    </FONT>
    <H4><FONT COLOR=YELLOW>About Gargoyles</FONT></H4>
    <FONT COLOR=WHITE>
      <A HREF="MAAtable.htm">Gargoyle Products</A><BR>
      <A HREF="MAAtext.htm">Gargoyle Products<BR>(text version)</A><BR>
    </FONT>
    <H4><FONT COLOR=YELLOW>Other Collections</FONT></H4>
    <FONT COLOR=WHITE>
      <A HREF="Vatican.htm">The Vatican Collection</A><BR>
      <A HREF="Rodin.htm">The Rodin Collection</A><BR>
      <A HREF="Masters.htm">Renaissance Masters</A><BR>
    </FONT>
  </TD>

```

 Middle Age Arts

Middle Age Arts

[Home Page](#)

[View the catalog](#)

[Place an order](#)

About Gargoyles

[Gargoyle Products](#)

[Gargoyle Products \(text version\)](#)

Other Collections

[The Vatican Collection](#)

[The Rodin Collection](#)

[Renaissance Masters](#)

# HTML Forms

- ▶ HTML Forms are required, when you want to collect some data from the site visitor.  
For example, during user registration you would like to collect information such as name, email address, credit card, etc.
- ▶ A form will take input from the site visitor and then will post it to a back-end application such as CGI, ASP Script or PHP script etc.
- ▶ The back-end application will perform required processing on the passed data based on defined business logic inside the application.
- ▶ There are various form elements available like text fields, text area fields, drop-down menus, radio buttons, checkboxes, etc.
- ▶ The HTML `<form>` tag is used to create an HTML form and it has following syntax.

# HTML Forms

- ▶ **The <form> Element**

- The HTML <form> element defines a form that is used to collect user input

```
<form>
  .
  .
  .
</form>
```

- ▶ An HTML form contains **form elements**.
- ▶ Form elements are different types of input elements:
  - Text fields,
  - Checkboxes,
  - Radio buttons,
  - Submit buttons, and more.

# HTML Forms

- ▶ The `<input>` Element:
  - The `<input>` element is the most important form element.
  - The `<input>` element can be displayed in several ways, depending on the `type` attribute.
- ▶ Here are some examples:
  - `<input type="text">` : Defines a one-line text input field
  - `<input type="radio">` : Defines a radio button (for selecting one of many choices)
  - `<input type="submit">` : Defines a submit button (for submitting the form)
  - `<input type="checkbox">` Defines a check
  - `<input type="reset">` defines a **reset button**.
  - `<input type="password">` defines a **password field**:
  - `<input type="button">` defines a **button**:
  - `<input type="date">` is used for input fields that should contain a date.
  - `<input type="email">` is used for input fields that should contain an e-mail address.
  - `<input type="file">` defines a file-select field and a "Browse" button for file uploads.

- ▶ **Text Input**
  - `<input type="text">` defines a one-line input field for **text input**
- ▶ **Radio Button Input**
  - `<input type="radio">` defines a **radio button**.
  - Radio buttons let a user select ONE of a limited number of choices
- ▶ **The Submit Button**
  - `<input type="submit">` defines a button for **submitting** the form data to a **form-handler**.
  - The form-handler is typically a server page with a script for processing input data.
  - The form-handler is specified in the form's **action** attribute:

# WHAT ARE FRAMES?

- Frames allow **independent** navigation and content to two (or more) locations on a single browser screen
- Frames allow multiple "windows" in a single browser page

# ADVANTAGES / DISADVANTAGES OF FRAMES

## ○ Advantages

- Allow multiple content on a single page
- Allow linked content (such as a table of contents)
- Allow separate scrollable regions on a page

## ○ Disadvantages

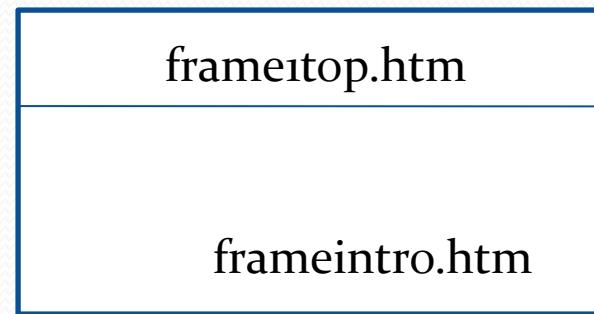
- Breaks down the traditional 1 file equals 1 web-page linkage
- Adds considerable complexity to the coding process
- Implementation is fairly browser specific
- Errors can be extremely difficult to identify

# BASICS OF FRAME DESIGN - CONTENT OF FRAME1 . HTM FILE

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>

<FRAMESET ROWS="100, *">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>

</HTML>
```



# BASICS OF FRAME DESIGN - CONTENT OF FRAME1 . HTM FILE

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>

<FRAMESET ROWS="100, *">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>

</HTML>
```

{ Note - there is NOT a **<BODY> ... </BODY>** tag set in the frame definition. This is NOT a mistake in the example code.

# BASICS OF FRAME DESIGN -

## DEFINING THE FRAMESET

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>
<FRAMESET ROWS="100,*">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>
</HTML>
```

The Frameset tags define that this frame will have two rows. The top row will be 100 pixels tall, the second row will receive whatever space remains.

# BASICS OF FRAME DESIGN

## DEFINING THE TOP ROW

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>

<FRAMESET ROWS="100, *">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>

</HTML>
```

**The FRAME tags define the two rows of the frame.**  
**The name entry is technically optional, but highly recommended. The SRC tag defines the content of the frame when the frameset is initially loaded.**

# CONTENT OF FRAME1TOP.HTM FILE

```
<HTML>
```

```
<HEAD><TITLE>This is the top row content</TITLE></HEAD>
```

```
<BODY bgcolor="white">
```

```
<CENTER>
```

```
<P><FONT size="2" color="#299C39">
```

```
This is the top row of the frame<BR></FONT>
```

```
<A HREF="f1.html" TARGET="bottom_row">
```

```
Link 1</A>
```

```
<A HREF="c.html" TARGET="bottom_row">
```

```
Link 2</A>
```

```
<A HREF="frameintro.htm" TARGET="bottom_row">
```

```
Return to Original</A><BR>
```

```
Notice how clicking on each link changes the content in  
the bottom frame,<BR>
```

```
without changing anything in the top.</P></CENTER>
```

```
</BODY>
```

```
</HTML>
```

# BASICS OF FRAME DESIGN

## DEFINING THE BOTTOM ROW

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>
<FRAMESET ROWS="100, *">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>
</HTML>
```

This Frame tag defines the bottom of the browser window, which will be the "large size" window on the screen.

The name entry (bottom\_row) shows up in links in the frame1top.htm file. The initial content of the is defined in the SRC tag entry.

# CONTENT OF FRAMEINTRO.HTM

## FILE

```
<HTML>
<HEAD><TITLE>This is the introduction content
</TITLE></HEAD>
<BODY bgcolor="#52B552">
<CENTER>
<P><FONT SIZE="3" color="blue">
After completing your team project, <BR>
I thought you might enjoy this graphic<P>
<IMG SRC="jiit.png" ALT="A Dilbert Cartoon
on Teams"><BR>
</P>
</BODY>
</HTML>
```

This is the top row of the frame

[Link 1](#) [Link 2](#) [Link 3](#) [Return to Original](#)

Notice how clicking on each link changes the content in the bottom frame,  
without changing anything in the top.

After completing your team project,  
I thought you might enjoy this graphic



```
<html>
<frameset rows="50%,50%">
  <frame src="frame_a.htm">
<frameset cols="25%,75%">
  <frame src="frame_b.htm">
<frameset rows="*,5*>
  <frame src="frame_b.htm">
  <frame src="frame_a.htm">
</frameset>
</frameset>
</frameset>
</html>
```

### Frame A

**Note:** The frameset, frame, and noframes elements are not supported in HTML5.

### Frame B

### Frame B

### Frame A

**Note:** The frameset, frame, and noframes elements are not supported in HTML5.

# BASICS OF FRAME DESIGN - CONTENT OF FRAME1 . HTM FILE

```
<HTML>
<HEAD><TITLE>Frame example</TITLE></HEAD>

<FRAMESET ROWS="100, *">
  <FRAME NAME="top_row" SRC="frame1top.htm">
  <FRAME NAME="bottom_row" SRC="frameintro.htm">
</FRAMESET>
</HTML>
```



This name is referenced in the links defined in  
The frame1top.htm file.

# VISITING LINK #1

Frame example - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://www.ilstu.edu/~mamyers3/frames/frame1.htm Go

This is the top row of the frame

[Link #1](#) [Link #2](#) [Link #3](#) [Return to Original](#)

Notice how clicking on each link changes the content in the bottom frame,  
without changing anything in the top



This is a picture of the new Lambeau Field, currently undergoing renovations in Green Bay, Wisconsin. Lambeau Field is home to the legendary Green Bay Packers, (twelve time NFL Champions - in 1929, 1930, 1931, 1936, 1939, 1944, 1961, 1962, 1965, 1966, 1967, and 1996).

You can visit the Packers official website ([www.packers.com](http://www.packers.com)) for more information concerning the status of this project.

Brett Favre is the only three-time NFL MVP, having won the award in three consecutive seasons.

- Perennially recognized as the premier player in the game, a status underscored by record three-time selection as the National Football League's 'Most Valuable Player,' Brett Favre added another major accomplishment to his imposing pedigree in 1999 by becoming - certifiably - the most durable quarterback in pro football history.



# DEFINING A FRAMESET WITH COLUMNS INSTEAD OF ROWS.

```
<HTML>
<HEAD><TITLE>Frame example - Columns</TITLE></HEAD>

<FRAMESET COLS="200, *">
    <FRAME NAME="left_side" SRC="frame2menu.htm"
          SCROLLING="yes">
    <FRAME NAME="right_side" SRC="frameintro.htm"
          SCROLLING="yes">
</FRAMESET>

</HTML>
```

# THE SUBSTANTIVE CHANGES ARE HIGHLIGHTED.

```
<HTML>
<HEAD><TITLE>Frame example - Columns</TITLE></HEAD>

<FRAMESET COLS="200,*">
    <FRAME NAME="left_side" SRC="frame2menu.htm"
          SCROLLING="yes">
    <FRAME NAME="right_side" SRC="frameintro.htm"
          SCROLLING="yes">
</FRAMESET>

</HTML>
```

# LEFT-SIDE MENU CONTENT OF FRAME2MENU . HTM FILE

- <html>
- <head>
- <TITLE>This is the left side content</TITLE>
- </HEAD>
- <BODY bgcolor="#FFFF10">
- <CENTER>
- <P><FONT size="+1" color="#299C39">
- This is the table of contents listings for the left side frame<BR></FONT>
- </CENTER>
- {MORE CONTENT ON THE NEXT PAGE}

# LEFT-SIDE CONTENT (CONTINUED)

```
<UL>
<LI><A HREF="framecontent1.htm" TARGET="right_side">
Link #1</A><BR>Packer graphics page.</LI>
<LI><A HREF="framecontent2.htm" TARGET="right_side">
Link #2</A><BR>Packer schedule page.</LI>
<LI><A HREF="framecontent3.htm" TARGET="right_side">
Link #3</A><BR>Myerscough Websume Page.</LI>
<LI><A HREF="frameintro.htm" TARGET="right_side">
Return to Original</A><BR>Being a team member</LI>
</UL>
<P>
Notice how clicking on each link changes the content
in the right side frame,<BR>
without changing anything in the left side.</P>
</BODY>
</HTML>
```

# DEFINING TABLE OF CONTENTS AS A LIST

```
<UL>
<LI><A HREF="framecontent1.htm" TARGET="right_side">
Link #1</A><BR>Packer graphics page.</LI>
<LI><A HREF="framecontent2.htm" TARGET="right_side">
Link #2</A><BR>Packer schedule page.</LI>
<LI><A HREF="framecontent3.htm" TARGET="right_side">
Link #3</A><BR>Myerscough Websume Page.</LI>
<LI><A HREF="frameintro.htm" TARGET="right_side">
Return to Original</A><BR>Being a team member</LI>
</UL>
```

```
<P>
Notice how clicking on each link changes the content
in the right side frame,<BR>
without changing anything in the left side.</P>
</BODY>
</HTML>
```

# HYPERLINKS

## (NOTE THE TARGET NAMES IN EACH)

```
<UL>
<LI><A HREF="framecontent1.htm" TARGET="right_side">
Link #1</A><BR>Packer graphics page.</LI>
<LI><A HREF="framecontent2.htm" TARGET="right_side">
Link #2</A><BR>Packer schedule page.</LI>
<LI><A HREF="framecontent3.htm" TARGET="right_side">
Link #3</A><BR>Myerscough Websume Page.</LI>
<LI><A HREF="frameintro.htm" TARGET="right_side">
Return to Original</A><BR>Being a team member</LI>
</UL>
```

<P>

Notice how clicking on each link changes the content  
in the right side frame,<BR>  
without changing anything in the left side.</P>

```
</BODY>
</HTML>
```

# COLUMN-FORMAT DISPLAYED

Frame example - Columns - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://www.ilstu.edu/~mamyers3/frames/frame2.htm Go

This is the table of contents listings for the left side frame

- [Link #1](#)  
Packer graphics page.
- [Link #2](#)  
Packer schedule page.
- [Link #3](#)  
Myerscough Websume Page.
- [Return to Original](#)  
Being a team member

Notice how clicking on each link changes the content in the right side frame,

After completing your team project,  
I thought you might enjoy this graphic

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HTML Coding - Frame sets

# OPTIONS IN DEFINING THE FRAMESETS

## **<FRAMESET ROWS="100,\*">**

Defines a two row frameset, the top row will be 100 pixels tall, the second row receives the remaining space on the screen.

## **<FRAMESET ROWS="1\*,4\*>**

Defines a two row frameset, where the bottom row will always be 4 times larger than the top row, regardless of browser window.

# MORE OPTIONS IN DEFINING THE FRAMESETS

**<FRAMESET ROWS="100,\* ,75">**

Defines a three row frameset.

The top row will be 100 pixels tall, the bottom row will be 75 pixels tall. The middle row will receive whatever space remains.

**<FRAMESET ROWS="200,100">**

**NOT A RECOMMENDED APPROACH.**

This setting does not provide for a "rest of the browser window" setting. The net effect is that the top row will always be twice as large as the bottom row - since 200 is twice as large as 100.

**ALWAYS** allow for a wildcard (\*) setting for the rest of the browser window.