

Introduction to HTML(Hyper Text Markup Language)

- It is a language for **specifying the static content of Web pages** (based on SGML, the Standard Generalized Markup Language)
- Constitutes a **collection of platform independent styles that define the various components of a web document.**
- Styles indicated by markup tags.
- **Hypertext** is simply a piece of text that works as a link.
- **Markup** -> works by augmenting text with special symbols (tags) that identify the document structure and content type
- Basically an HTML document is a plain text file that contains text and nothing else.
- When a browser opens an HTML file, **the browser will look for HTML tags in the text** and use them to change the layout, insert images, or create links to other pages.

HTML Editors

- HTML documents are just text files they can be written in even the simplest text editor (Notepad).
- A more popular choice is to use a special HTML editor - maybe even one that puts focus on the visual result rather than the codes - a so-called WYSIWYG editor ("What You See Is What You Get").
- Some of the most popular HTML editors, such as FrontPage or Dreamweaver will let you create pages more or less as you write documents in Word or whatever text editor you're using.

HTML

- One where we can embed special tags or formatting commands in the text.
- To describe how the text should be displayed / printed.
- Special formatting codes (called tags) to adjust fonts, create bulleted lists, create forms, display images, create tables, etc.

WHY LEARN HTML?

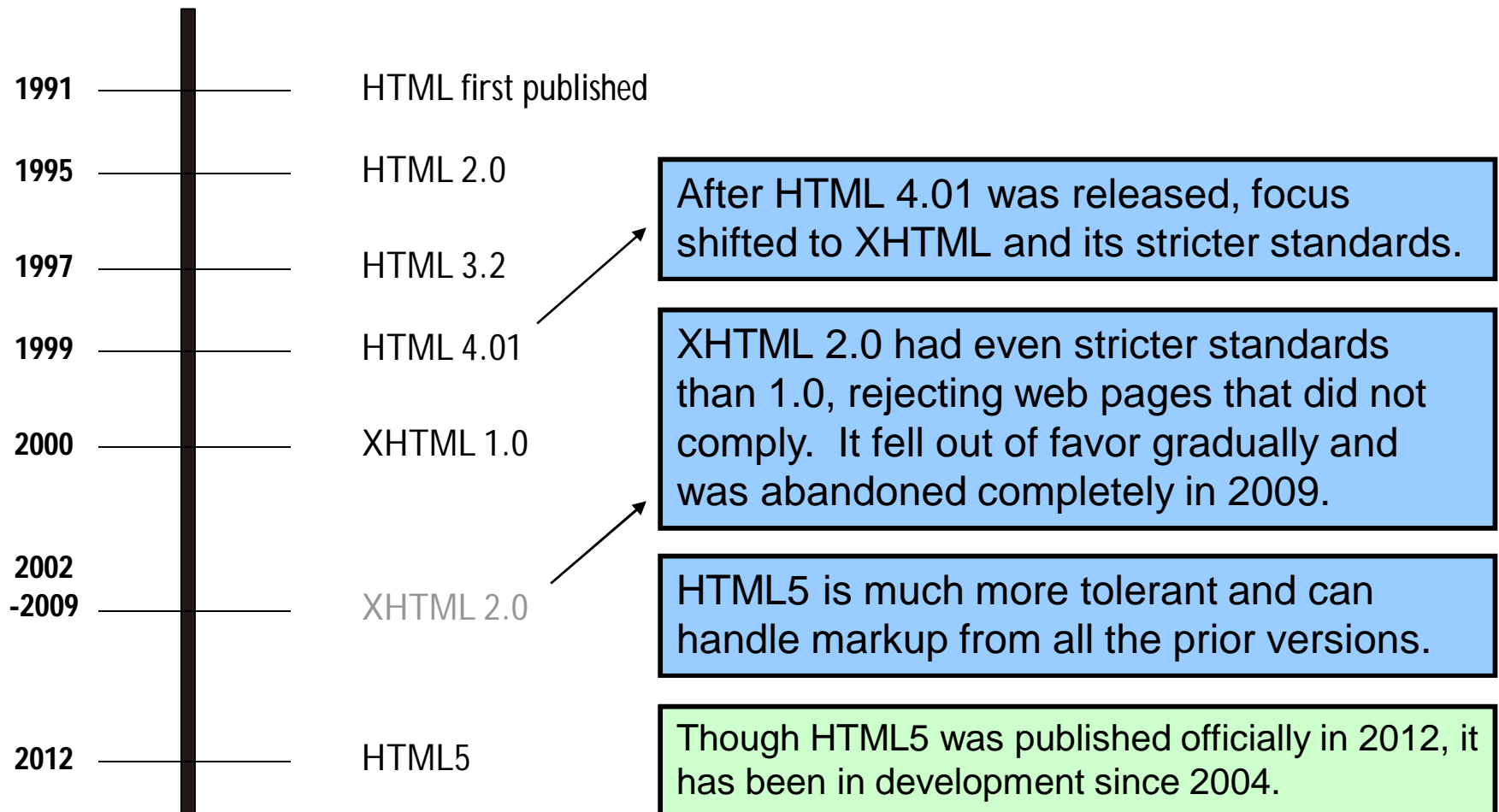
The most important benefits are:

- You can use tags the editor does not support.
You can read the code of other people's pages, and "borrow" the cool effects.
- You can do the work yourself, when the editor simply refuses to create the effects you want.
- You can write your HTML by hand with almost any available text editor, including notepad that comes as a standard program with Windows.
All you need to do is type in the code, then save the document, making sure to put an **.html** extension or an **.htm** extension to the file (for instance "mypage.html").

History

- The first publicly available description of HTML was a document called "**HTML Tags**", first mentioned on the Internet by **Berners-Lee** in late 1991.
- **November 24, 1995** - HTML 2.0 was published as IETF RFC 1866.
- **January 1997** - HTML 3.2 was published as a W3C Recommendation.
- **December 1997** - HTML 4.0 was published as a W3C Recommendation.
- **December 1999** - HTML 4.01 was published as a W3C Recommendation.
- **May 2000** - ISO HTML based on HTML 4.01 Strict was published as an ISO/IEC international standard.
- **January 2008** - HTML5 was published as a Working Draft by the W3C.

History of HTML



Tags

- Special formatting codes (called **tags**) to adjust fonts, create bulleted lists, create forms, display images, create tables, etc.
- The left and right angle brackets are used to enclose all special instructions, called **tags**.
- **Two classes of tags:**
 - Those which appear in **pairs**. -> `<i> Good morning </i>`
 - Those which appear individually(**unpaired**)->
``
- Browsers interpret the tags to display a HTML page in properly formatted form.
- HTML: the HTML for the above example:
This is an example of `bold` text.

Words to know

Tag - Used to specify ("mark-up") regions of HTML documents for the web browser to interpret. Tags look like this: <tag>

Eg: <p>

Element - A complete tag, having an opening <tag> and a closing </tag>.

Eg: <p> </p>

Attribute - Used to modify the value of the HTML element. Elements will often have multiple attributes.

Eg: <p align="center"> </p>

Page Structure

- All normal webpages consist of a head and a body.

Head

Body

- The **head** is used for text and tags that do not show directly on the page.
- The **body** is used for text and tags that are shown directly on the page.
- Finally, all webpages have an **<html>** tag at the beginning and the end, telling the browser where the document starts and where it stops.
- Example:

```
<html>
  <head><!-- This section is for the title and technical info of the page. -->
  </head>
  <body><!-- This section is for all that you want to show on the page. -->
  </body>
</html>
```

Head Section

- The head section of the webpage includes all the stuff that does not show directly on the resulting page.
- The `<title>` and `</title>` tags encapsulate the title of your page. The title is what **shows in the top of your browser window** when the page is loaded.
- Another thing you will often see in the head section is metatags. Metatags are used for, among other things, to improve the rankings in search engines.
- Quite often the head section contains javascript which is a programming language for more complex HTML pages.
- Finally, more and more pages contain codes for **cascading style sheets (CSS)**. CSS is a rather **new technique for optimizing the layout of major websites**.

Body Section

- ❖ The body of the document contains all that can be seen when the user loads the page.
- ❖ you can learn in detail about all the different aspects of HTML, including:
 - Text :Formatting, Resizing, Layout & Listing
 - Links : To local pages, To pages at other sites & To bookmarks
 - Images : Inserting images (GIF and jpg) & Adding a link to an image
 - Backgrounds : Colors & Images
 - Tables
 - Frames
 - Forms

HTML Page Format

<HTML>

<HEAD>

<!-- Insert only HEAD tags. This is a comment. -->

<TITLE> Welcome </TITLE>

</HEAD>

<BODY>

<!-- Insert only BODY tags. -->

<H1> Hello World </H1>

<!-- Rest of page goes here.

This is the multiple line comment. -->

</BODY>

</HTML>

HTML 5 Page Format

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title> *Title of the document* </title>

</head>

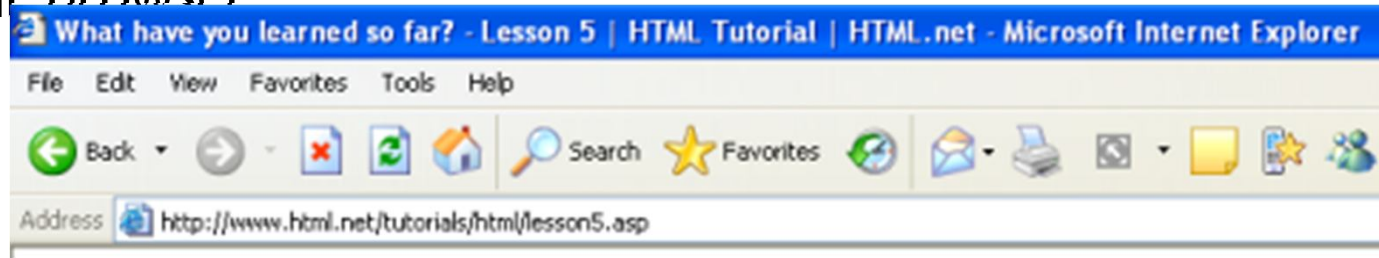
<body>

Content of the document.....

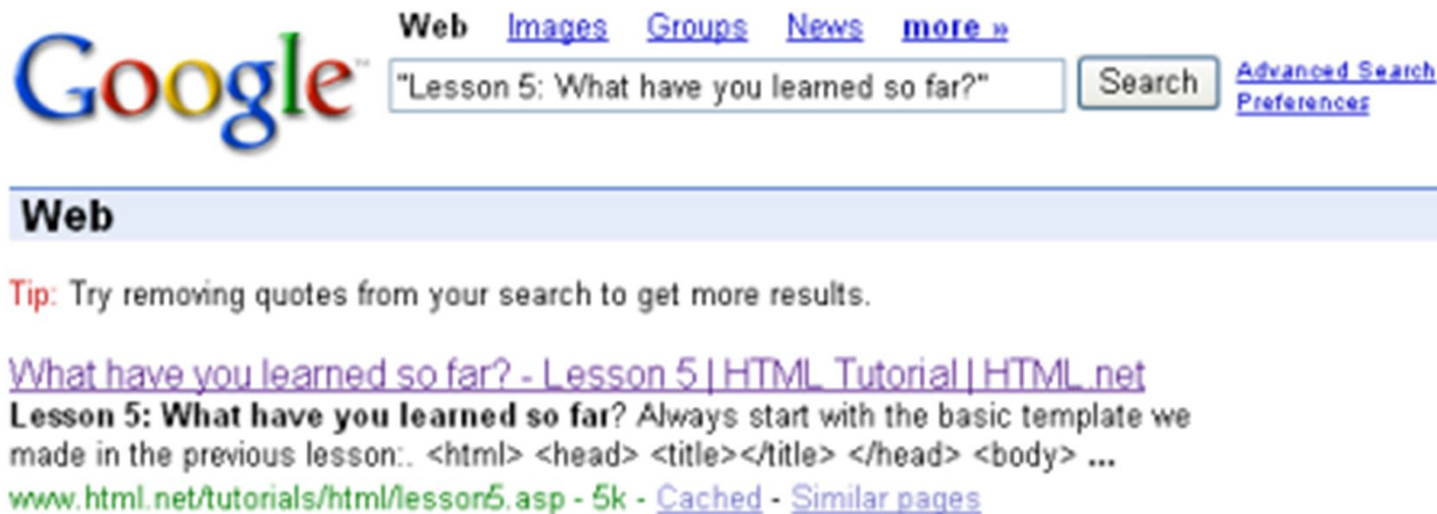
</body>

</html>

In the head section, always write a title: <title>The title of your page</title>. Notice how the title will be shown in the upper left corner of your browser.



The title is especially important because it is used by search engines (such as Google) to index your website and is shown in the search results.



Working with Text

- Working with Headings
- Working with Paragraphs
- Applying Fonts
- Setting the Font Size
- Setting the Font Color
- Applying Physical Styles
- Applying Logical Styles
- Using the Preformatted Text Element
- Using the Blockquote Element
- Setting Document Margins
- Creating an Ordered List
- Modifying Ordered List Styles
- Modifying an Ordered List's Starting Character
- Creating an Unordered List
- Modifying Bullet Styles
- Nesting Lists
- Creating Definition Lists

Headings

<H1 ...> text </H1> -- largest of the six

<H2 ...> text </H2>

<H3 ...> text </H3>

<H4 ...> text </H4>

<H5 ...> text </H5>

<H6 ...> text </H6> -- smallest of the six

ALIGN = "*position*" -- left (default), center or right

Headings

```
<!DOCTYPE html>
```

```
<HTML>
```

```
<HEAD>
```

```
  <TITLE>Document Headings</TITLE>
```

```
</HEAD>
```

```
<BODY>
```

Samples of the six heading types:

```
<H1>Level-1 (H1)</H1>
```

```
<H2 ALIGN="center">Level-2 (H2)</H2>
```

```
<H3><U>Level-3 (H3)</U></H3>
```

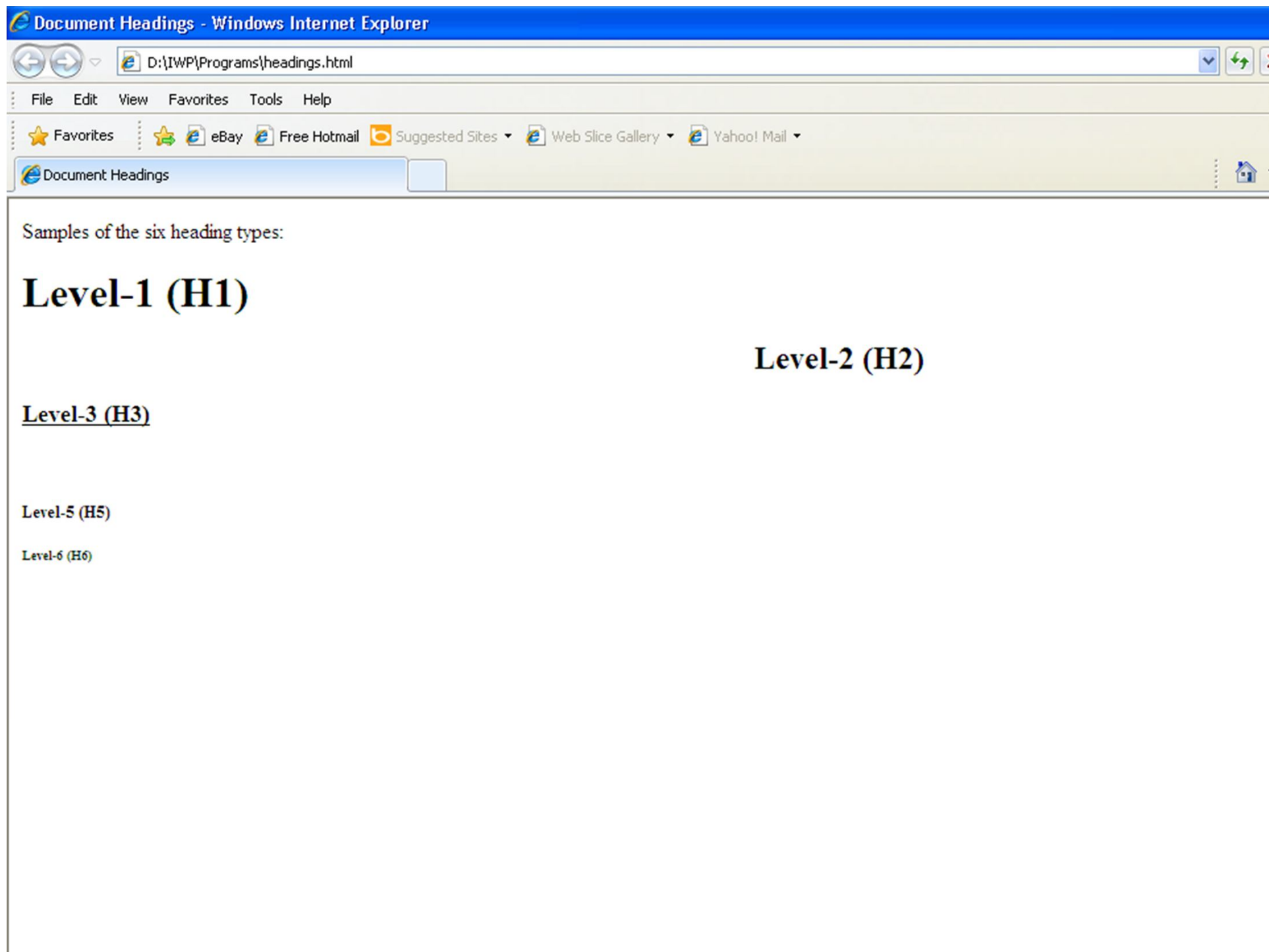
```
<H4 ALIGN="right">Level-4 (H4)</H4>
```

```
<H5>Level-5 (H5)</H5>
```

```
<H6>Level-6 (H6)</H6>
```

```
</BODY>
```

```
</HTML>
```



Paragraph

- The `<p>` tag defines a paragraph. Using this tag places a blank line above and below the text of the paragraph.
- **Attributes:**
 - `ID=p1`
 - `NAME="Introduction"`
 - `ALIGN="position"` (left, center, right, justify)
- Fully-specified text uses `<P>` and `</P>`
- But `</P>` is optional.
- Multiple `<P>`'s do not create blank lines.
- Use `
` for blank line.

Paragraph - Example

<HTML><BODY>

<P align="justify"> Here is some text Here is some text Here is some text Here is some text
Here is some text Here is some text Here is some text Here is some text Here is some
text Here is some text Here is some text Here is some text Here is some text Here is
some text Here is some text Here is some text Here is some text Here is some text Here is
some text Here is some text</P>

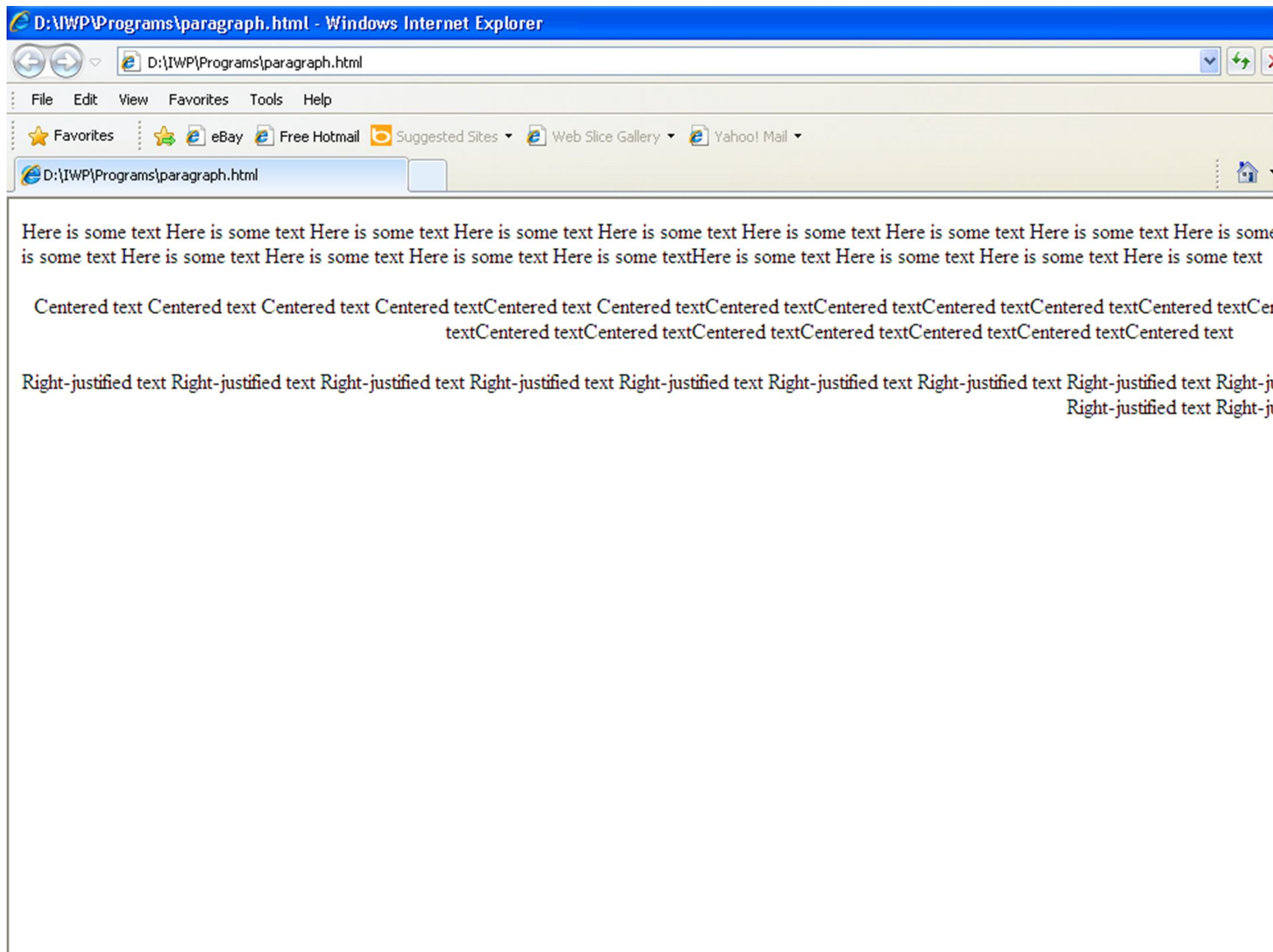
<P ALIGN="center"> Centered text Centered text Centered text Centered textCentered
text Centered textCentered textCentered textCentered textCentered textCentered
textCentered textCentered textCentered textCentered textCentered textCentered
textCentered textCentered textCentered textCentered textCentered textCentered text</P>

<p></p><p></p>

<P ALIGN="right"> Right-justified text Right-justified text Right-justified text Right-
justified text Right-justified text Right-justified text Right-justified text Right-justified
text Right-justified text Right-justified text Right-justified text Right-justified text Right-
justified text Right-justified text Right-justified text

<! Note: no closing /P tag is not a problem>

</BODY></HTML>



Line Break

- A line break ends the line you are currently on and resumes on the next line. Placing **
** within the code is the same as pressing the return key in a word processor.

<p>Sincerely,

Amirta Iyer

Class Representative </p>

Sincerely,

Amirta Iyer
Class Representative

Horizontal Rule

- Use the <HR> tag to display lines across the screen. Note: the horizontal rule tag has no ending tag.
- **Align** attribute – left ,right and center
- **Width** attribute – in pixels
- **Size** attribute – in pixels %

Example:

<hr align=right> Use

<hr width=10 > Them

<hr align=center> center line

<hr size=15> size line

Body Tag

- The body tag serves as the element containing all the content for the website.

```
<body bgcolor="yellow" background="sample.jpg" text="red"  
topmargin=10 leftmargin=20 link="green" alink="black" vlink="blue"  
>
```

- **leftmargin** Sets a lefthand margin for your body element.
- **topmargin** Sets a margin along the top of your body element
- The **text** attribute sets the text color of all text contained within the body tags.
- **background** attribute specifies a background-image as URL or path for an HTML page
- We may also specify base colors for **active** , **visited** and **unvisited** links.

Fonts

The **** tag is used to add style, size, and color to the text on your web page.

```
<FONT COLOR="red" SIZE="2" FACE="Times Roman">
```

This is the text of line one

```
<p> We've made this word three times
```

```
<big><big><big>bigger</big></big></big> by nesting it  
inside three sets of big tags.</p>
```

```
<p> <font size="5">We've made this word three times
```

```
<small><small><small>smaller</small></small></small> by  
nesting it inside three sets of small tags.</font></p>
```

Attribute=	"Value"	Description
size=	"Num. Value 1-7"	Size of your text, 7 is biggest
color=	"rgb,name,or hexidecimal"	Change font color
face=	"name of font"	Change the font type

Formatting Text(physical & logical styles)

- **Bold
**
- **<I>Italic</I>
**
- **<U>Underlined</U>
**
- Subscripts: **f₀ + f₁
**
- Superscripts: **x² + y²
**
- **<SMALL>Smaller</SMALL>
**
- **<BIG>Bigger</BIG>
**
- **Emphasized Text
**
- **<TT>Teletype (Monospaced)</TT>
**
- **<CODE>Computer Code Text</CODE>
**
- **<STRIKE>Strike Through</STRIKE>
**
- **<I>Bold Italic</I>
**
- **<p>My favorite color is blue <ins>red</ins>!</p>**
- **abcdefDeletefhkfydkhfdhgf
**
- **gfhgfhgfh<INS>Insert</INS>gfhgfhgfh
**

- **Bold**
- *Italic*
- Underlined
- Subscripts: $f_0 + f_1$
- Superscripts: $x^2 + y^2$
- Smaller
- Bigger
- *Emphasized Text*
- Teletype (Monospaced)
- Computer Code Text
- Strike Through
- **Bold Italic**
- abcdefDeletefhkfydkhfdhgf
- gfhgfhgfhInsertgfhgfhgfh

Formatting Text(logical styles)

- `<SAMP>` Sample
Output `</SAMP>
`
- `<KBD>` Keyboard Text `</KBD>
`
- `<DFN>` Definition `</DFN>
`
- `<VAR>` Variable `</VAR>
`
- `<CITE>` Citation `</CITE>
`
- `<ACRONYM TITLE="Java Development Kit">`JDK
Acronym `</ACRONYM>` or `<abbr>`
- `<address>`
Written by Jon Doe. `
`
Visit us at: `
`
Example.com `
`
Box 564, Disneyland `
`
USA
`</address>`

- Sample Output
- Keyboard Text
- *Definition*
- *Variable*
- *Citation*
- JDK Acronym

<PRE> Preformatted Text

<PRE>

```
if (a < b) {  
    a++;  
    b = c * d;  
}  
else {  
    a--;  
    b = (b-1)/2;  
}
```

</PRE>



D:\IWP\Programs\Tutorial.html



File Edit View Favorites Tools Help

★ Favorites ★ eBay Free Hotmail Suggested Sites Web Slice Gallery Yahoo! Mail

D:\IWP\Programs\Tutorial.html

```
if (a < b) {  
    a++;  
    b = c * d;  
}  
else {  
    a--;  
    b = (b-1)/2;  
}
```

Colors

- Values for BGCOLOR and COLOR
- all colors can be specified as a six character hexadecimal value: RRGGBB

Example: 3 ways

- `<body bgcolor="#AA22FF">`
- ``
- ``

16 Basic Colors: Black, Gray, Silver, White, Yellow, Lime, Aqua
Fuchsia, Red, Green, Blue, Purple, Maroon, Olive, Navy, Teal

Tips: Hexa Decimal representation is best.

<blockquote>

- The <blockquote> tag designates quoted text, specifically long quotations of paragraph length or more.
- Browsers typically render text wrapped in <blockquote> tags as an indented paragraph.

<p>The following is a quote from www.poets.org:</p>
<blockquote><blockquote><p>Edgar Allan Poe was born in Boston, Massachusetts, on January 19, 1809. Poe's father and mother, both professional actors, died before the poet was three and John and Frances Allan raised him as a foster child in Richmond, Virginia. John Allan, a prosperous tobacco exporter, sent Poe to the best boarding schools and later to the University of Virginia, where Poe excelled academically.</p></blockquote></blockquote>

Image

- In HTML, images are defined with the `` tag. It is empty, which means that it contains attributes only, and has no closing tag.
- The value of the `src` (source) attribute is the URL of the image you want to display.
- The *alt* attribute specifies alternate text to be displayed if for some reason the browser cannot find the image, or if a user has image files disabled.
- To define the height and width of the image, use the *height* and *width* attributes.
- Use the `align` attributes to place images within your body, tables, or sections.
- ``
- **Tips:** Jpeg images have an unlimited color wheel, and have a high compression rate downsizing your load times and saving hard drive space. Its best to use Jpegs for photo galleries, or artwork. Gif images are best used for banners, clip art, and buttons.

Character HTML Entities

- Some characters are reserved in HTML.
- It is not possible to use the less than (<) or greater than (>) signs in your text, because the browser will mix them with tags.
- To **display reserved characters**, use character entities in the HTML source code.
- A character entity looks like this:

&entity_name; or *&#entity_number;*

Special Characters Entities

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
§	section	§	§
©	copyright	©	©
®	registered trademark	®	®
™	trademark	™	™

Symbol	Description	Character entity reference
<i>HTML5 character entities</i>		
&	ampersand	&
'	apostrophe	'
>	greater-than	>
<	less-than	<
"	quote	"
<i>Other common character entities</i>		
non-breaking space		
©	copyright	©
—	em dash	—
–	en dash	–
¼	fraction 1/4	¼
½	fraction 1/2	½
¾	fraction 3/4	¾
...	horizontal ellipsis	…
®	registered trademark	®
§	section	§
™	trademark	™