

The background of the slide is a light beige color. In the top left corner, there is a corkboard with a few papers pinned to it. In the center, there is a large, stylized illustration of a laptop. The laptop screen displays a website layout with a blue header, a main content area with a colorful bar chart, and a footer with three grey rectangular boxes. To the left of the laptop, there is a complex system of grey pipes and red valves, resembling a mechanical or industrial setup. Above the laptop, there are several colorful circles (bubbles) containing text: a blue circle with 'www', a red circle with 'HTML5', a red circle with 'js', a grey circle with 'Cloud', an orange circle with 'XML', and a green circle with 'PHP'. Dotted lines connect some of these circles, suggesting a network or flow. The overall theme is web technologies and engineering.

**ECAP472**

# WEB TECHNOLOGIES

**Dr. Pritpal Singh**

Associate Professor

# Learning Outcomes



After this lecture, you will be able to

- understand basic HTML elements and tags .
- Understand practical implementation .

# The Body Element

- The **BODY** element of a web page is an important element in regard to the **page's appearance**.
- This element contains information about the page's background color, the background image, as well as the text and link colors.

# The Body Element

- The **BODY** element of a web page is an important element in regard to the **page's appearance**.
- This element contains information about the page's background color, the background image, as well as the text and link colors.

# Headings, <Hx> </Hx>

- Inside the BODY element, heading elements H1 through H6 are generally used for major divisions of the document.
- Headings are permitted to appear in any order, but you will obtain the best results when your documents are displayed in a browser if you follow these guidelines:

# Headings, <Hx> </Hx>

- H1: should be used as the highest level of heading, H2 as the next highest, and so forth.
- You should not skip heading levels: e.g., an H3 should not appear after an H1, unless there is an H2 between them.

# Headings, <Hx> </Hx>

<HTML>

<HEAD>

<TITLE> Example Page</TITLE>

</HEAD>

<BODY>

<H1> Heading 1 </H1>

<H2> Heading 2 </H2>

<H3> Heading 3 </H3>

<H4> Heading 4 </H4>

<H5> Heading 5 </H5>

<H6> Heading 6 </H6>

</BODY>

</HTML>



Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

# Paragraphs, <P> </P>

- Paragraphs allow you to add text to a document in such a way that it will automatically adjust the end of line to suite the window size of the browser in which it is being displayed. Each line of text will stretch the entire length of the window.



# Paragraphs, <P> </P>

```
<HTML><HEAD>  
<TITLE> Example Page</TITLE>  
</HEAD>  
<BODY></H1> Heading 1 </H1>  
<P> Paragraph 1, ....</P>  
<H2> Heading 2 </H2>  
<P> Paragraph 2, ....</P>  
<H3> Heading 3 </H3>  
<P> Paragraph 3, ....</P>  
<H4> Heading 4 </H4>  
<P> Paragraph 4, ....</P>  
<H5> Heading 5 </H5>  
<P> Paragraph 5, ....</P>  
<H6> Heading 6</H6>  
<P> Paragraph 6, ....</P>  
</BODY></HTML>
```



## Heading 1

Paragraph 1,....

## Heading 2

Paragraph 2,....

## Heading 3

Paragraph 3,....

## Heading 4

Paragraph 4,....

## Heading 5

Paragraph 5,....

## Heading 6

Paragraph 6,....

# Break, <BR>

- Line breaks allow you to decide where the text will break on a line or continue to the end of the window.
- A <BR> is an empty Element, meaning that it may contain attributes, but it does not contain content.
- The <BR> element does not have a closing tag.

# Break, <BR>

- Line breaks allow you to decide where the text will break on a line or continue to the end of the window.
- A <BR> is an empty Element, meaning that it may contain attributes, but it does not contain content.
- The <BR> element does not have a closing tag.

# Break, <BR>

- Line breaks allow you to decide where the text will break on a line or continue to the end of the window.
- A <BR> is an empty Element, meaning that it may contain attributes, but it does not contain content.
- The <BR> element does not have a closing tag.

# Break, <BR>

<HTML>

<HEAD>

<TITLE> Example Page</TITLE>

</HEAD>

<BODY>

<H1> Heading 1 </H1>

<P>Paragraph 1, <BR>

Line 2 <BR> Line 3 <BR>....

</P>

</BODY>

</HTML>

Heading 1

Paragraph 1,....

Line 2

Line 3

....

# Horizontal Rule, <HR>

- The <HR> element causes the browser to display a horizontal line (rule) in your document.

# Horizontal Rule, <HR>

```
<HTML>
```

```
<HEAD>
```

```
<TITLE> Example Page</TITLE>
```

```
</HEAD>
```

```
<BODY>
```

```
<H1> Heading 1 </H1>
```

```
<P>Paragraph 1, <BR>
```

```
Line 2 <BR>
```

```
<HR>Line 3 <BR>
```

```
</P>
```

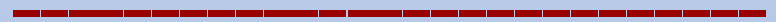
```
</BODY>
```

```
</HTML>
```

# Heading 1

Paragraph 1,....

Line 2



Line 3

# Bold, Italic and other Character Formatting Elements

**<EM> *Emphasis* </EM>** Browsers usually display this as italics.

**<STRONG> STRONG </STRONG>** Browsers display this as bold.

**<TT> TELETYPE </TT>** Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.

**<CITE> Citation </CITE>** represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics



# Bold, Italic and other Character Formatting Elements

**<EM> *Emphasis* </EM>** Browsers usually display this as italics.

**<STRONG> STRONG </STRONG>** Browsers display this as bold.

**<TT> TELETYPE </TT>** Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.

**<CITE> Citation </CITE>** represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics

# Bold, Italic and other Character Formatting Elements

**<EM> *Emphasis* </EM>** Browsers usually display this as italics.

**<STRONG> STRONG </STRONG>** Browsers display this as bold.

**<TT> TELETYPE </TT>** Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.

**<CITE> Citation </CITE>** represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics

# Bold, Italic and other Character Formatting Elements

**<EM> *Emphasis* </EM>** Browsers usually display this as italics.

**<STRONG> STRONG </STRONG>** Browsers display this as bold.

**<TT> TELETYPE </TT>** Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.

**<CITE> Citation </CITE>** represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics

# Alignment

- Some elements have attributes for alignment (ALIGN)  
e.g. **Headings, Paragraphs and Horizontal Rules.**
- The Three alignment values are : LEFT, RIGHT, CENTER.

# Special Characters & Symbols

- These Characters are recognized in HTML as they begin with an ampersand and end with with a semi-colon e.g. **&value;** The value will either be an entity name or a standard ASCII character number. They are called **escape sequences**.
- The next table represents some of the more commonly used special characters.

# Special Characters & Symbols

Special Character	Entity Name	Special Character	Entity Name
<b>Ampersand</b>	<b>&amp;amp;</b> &	<b>Greater-than sign</b>	<b>&amp;gt;</b> >
<b>Asterisk</b>	<b>&amp;lowast;</b> **	<b>Less-than sign</b>	<b>&amp;lt;</b> <
<b>Cent sign</b>	<b>&amp;cent;</b> ¢	<b>Non-breaking space</b>	<b>&amp;nbsp;</b> ;
<b>Copyright</b>	<b>&amp;copy;</b> ©	<b>Quotation mark</b>	<b>&amp;quot;</b> "
<b>Fraction one qtr</b>	<b>&amp;frac14;</b> ¼	<b>Registration mark</b>	<b>&amp;reg;</b> ®
<b>Fraction one half</b>	<b>&amp;frac12;</b> ½	<b>Trademark sign</b>	<b>&amp;trade;</b> ™

# Lists

Upon completing this section,  
you should be able to

Create an unordered list.

Create an ordered list.

Create a defined list.

Nest Lists.

# List elements

- HTML supplies several list elements. Most list elements are composed of one or more `<LI>` (List Item) elements.
- UL : Unordered List. Items in this list start with a list mark such as a bullet. Browsers will usually change the list mark in nested lists.

`<UL>`

`<LI>` List item ...`</LI>`

`<LI>` List item ...`</LI>`

`</UL>`



# List elements

- You have the choice of three bullet types: **disc(default)**, **circle**, **square**.
- These are controlled in Netscape Navigator by the “TYPE” attribute for the <UL> element.

```
<UL TYPE="square">
```

```
<LI> List item ...</LI>
```

```
<LI> List item ...</LI>
```

```
<LI> List item ...</LI>
```

```
</UL>
```

# List elements

- **OL** : Ordered List. Items in this list are numbered automatically by the browser.

**<OL>**

**<LI> List item ...</LI>**

**<LI> List item ...</LI>**

**<LI> List item ...</LI>**

**</OL>**

# List Elements

TYPE	Numbering Styles	
1	Arabic numbers	1,2,3, .....
a	Lower alpha	a, b, c, .....
A	Upper alpha	A, B, C, .....
i	Lower roman	i, ii, iii, .....
I	Upper roman	I, II, III, .....

# List elements

- You can specify a starting number for an ordered list.

`<OL TYPE="i">`

`<LI> List item ...</LI>`

`<LI> List item ...</LI>`

`</OL>`

`<P> text ....</P>`

`<OL TYPE="i" START="3">`

`<LI> List item ...</LI>`

`</OL>`

# List elements

**DL: Definition List.** This kind of list is different from the others. Each item in a DL consists of one or more **Definition Terms (DT elements)**, followed by one or more **Definition Description (DD elements)**.

```
<DL>  
<DT> HTML </DT>  
<DD> Hyper Text Markup Language </DD>  
<DT> DOG </DT>  
<DD> A human's best friend!</DD>  
</DL>
```

HTML

Hyper Text Markup Language

DOG

A human's best friend!

# Nesting Lists

- You can nest lists by inserting a UL, OL, etc., inside a list item (LI).

## Example

```
<UL TYPE = "square">  
<LI> List item ...</LI>  
<LI> List item ...  
<OL TYPE="i" START="3">  
<LI> List item ...</LI>  
<LI> List item ...</LI>  
<LI> List item ...</LI>  
<LI> List item ...</LI>  
<LI> List item ...</LI>  
</OL>  
</LI>  
<LI> List item ...</LI>  
</UL>
```

- List item ...
- List item ...
  - iii. List item ...
  - iv. List item ...
  - v. List item ...
  - vi. List item ...
  - vii. List item ...
- List item ...

# What will be the output?

<H1 ALIGN="CENTER">SAFETY TIPS FOR CANOEISTS</H1>

<OL TYPE="a" START="2">

<LI>Be able to swim </LI>

<LI>Wear a life jacket at all times </LI>

<LI>Don't stand up or move around. If canoe tips,

<UL>

<LI>Hang on to the canoe </LI>

<LI>Use the canoe for support and </LI>

<LI>Swim to shore

</UL> </LI>

<LI>Don't overexert yourself </LI>

<LI>Use a bow light at night </LI>

</OL>

# The output....

## **SAFETY TIPS FOR CANOEISTS**

- b. Be able to swim
- c. Wear a life jacket at all times
- d. Don't stand up or move around. If canoe tips,
  - o Hang on to the canoe
  - o Use the canoe for support and
  - o Swim to shore
- e. Don't overexert yourself
- f. Use a bow light at night



# Practical

That's all for now...