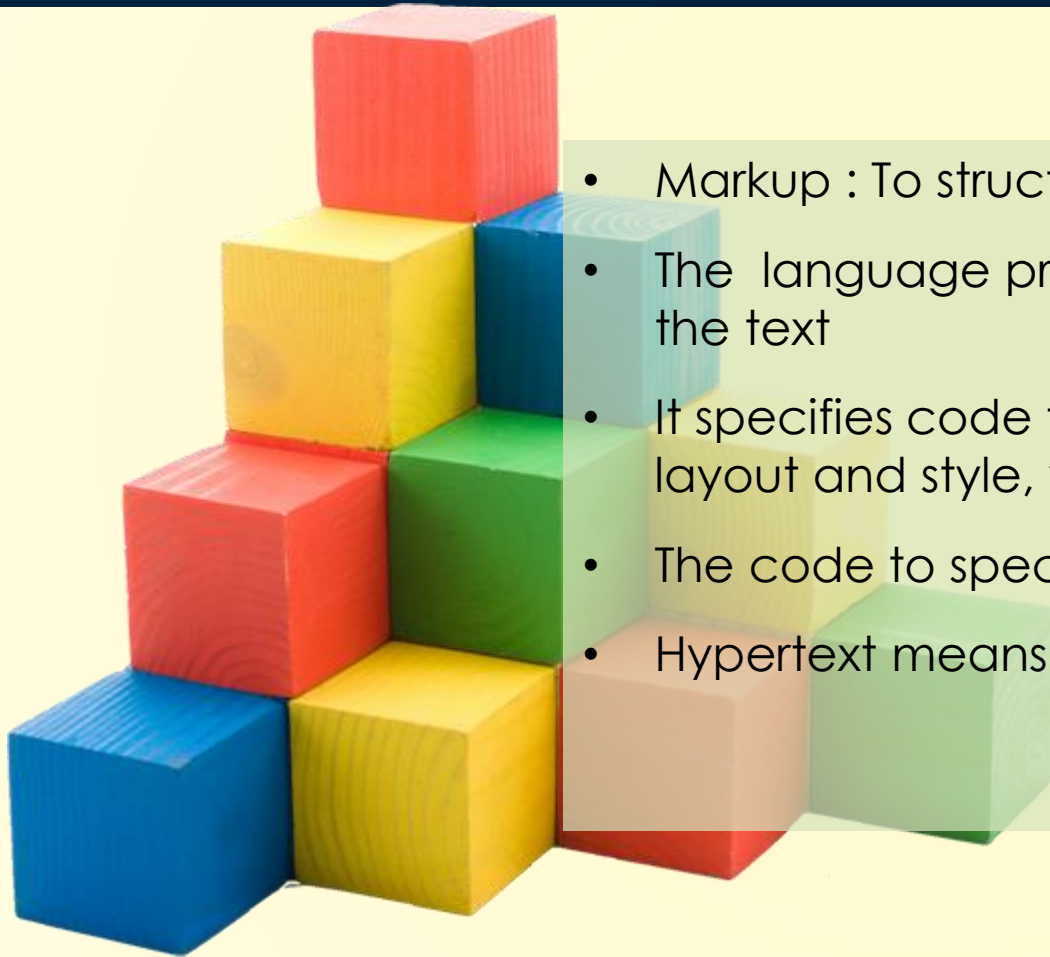




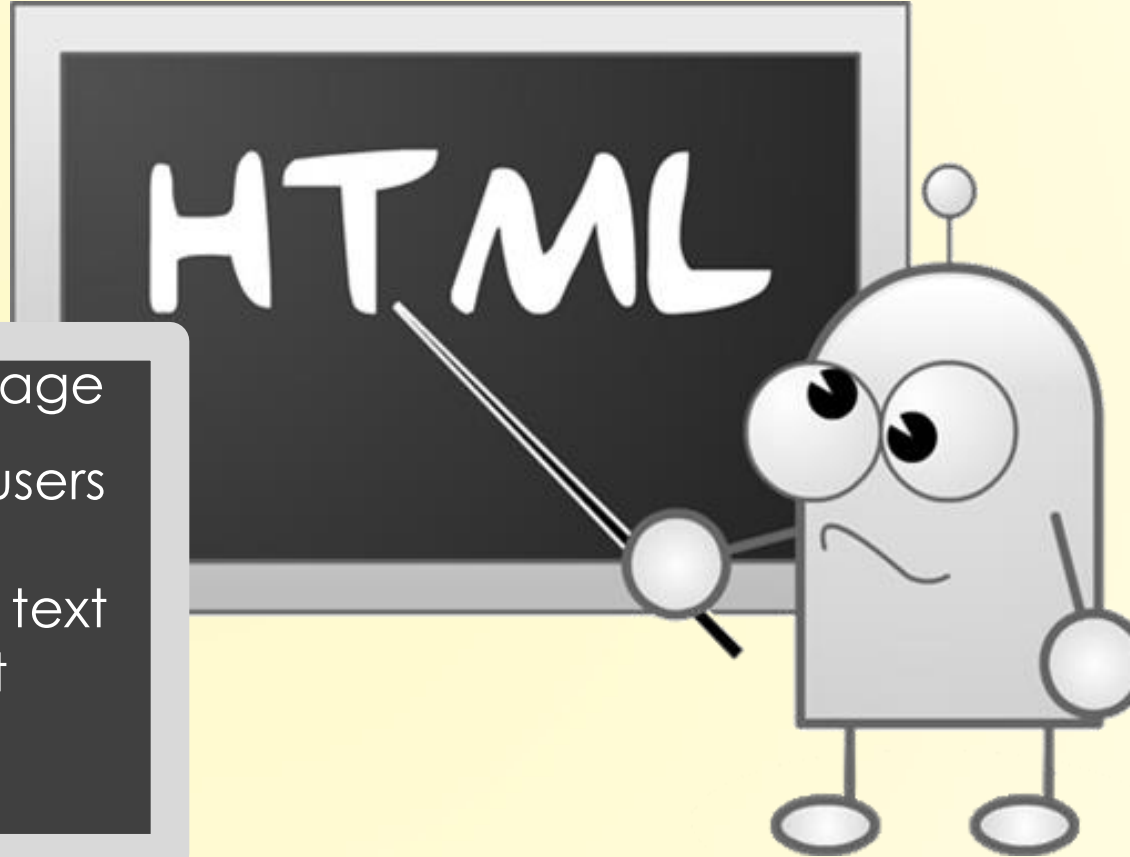
HTML: Introduction

Markup language



- Markup : To structure it in a specific format
- The language process, define and present the text
- It specifies code for formatting, both the layout and style, within a text file
- The code to specify the formatting are tags
- Hypertext means machine readable text

- **H**ypertext **M**arkup **L**anguage
- A language that allows users to organize, improve the appearance of, and link text with data on the internet
- Develop web pages



— Where to execute



- Windows: Notepad
- Mac: TextEdit
- Ubuntu in Linux: Gedit text editor
- FrontPage or Dreamweaver

— Saving and opening a File

To Save:

- Use .html extension: "file name.html"

- **To Open:**
Double click on the link created to open the file

— sample

<HTML>

<HEAD>

<TITLE> Example </TITLE>

</HEAD>

<BODY>

This is where you would include the text and images on your Web page.

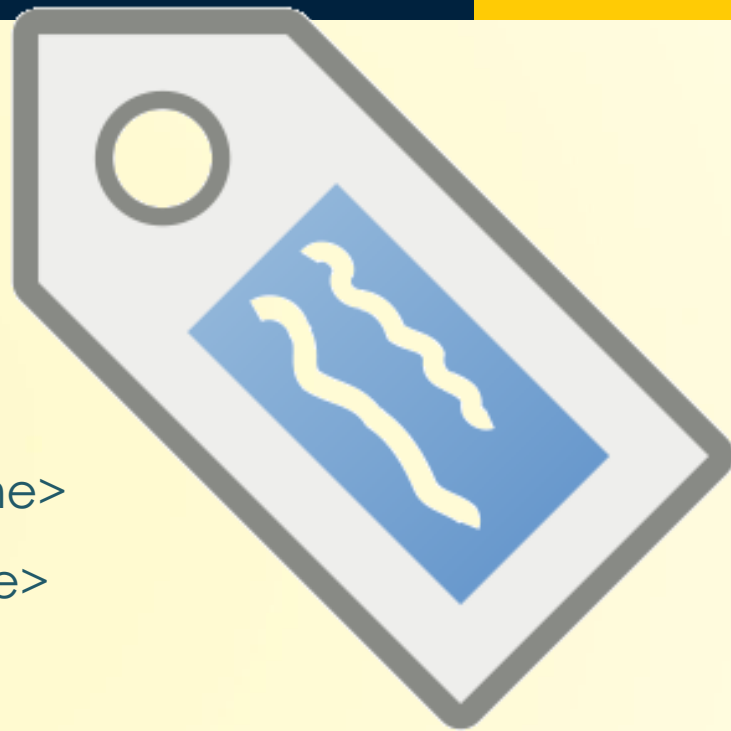
</BODY>

</HTML>

HTML Tags

- Mark-up HTML elements i.e. label pieces of content such as "heading", "paragraph"
- Enclosed in angle brackets (< >)
- Come in pairs:
 - Tag1: start tag or opening tag <tagname>
 - Tag2: end tag or closing tag </tagname>
- The basic structure of tag is:

<tag_name> some text </tag_name>



Nested Tags

- HTML tags within other HTML tags
- Nearest one is closed first

• Example:

• `<H1> <I> Nested Tag </I> </H1>`

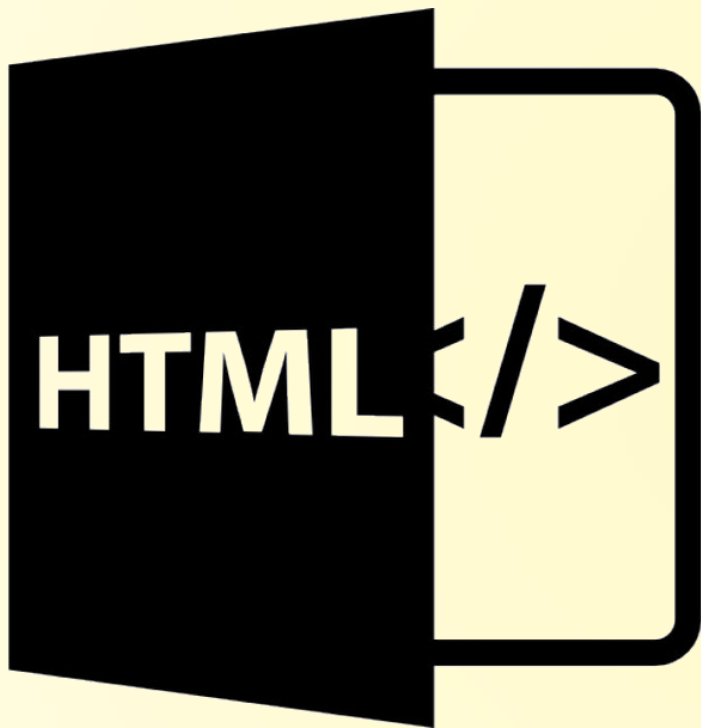
Common tags

`<html>` :

- Encloses the complete HTML document
- Comprises of:
 - Document header : `<head>...</head>`
 - Document body: `<body>...</body>` tags

`</html>`

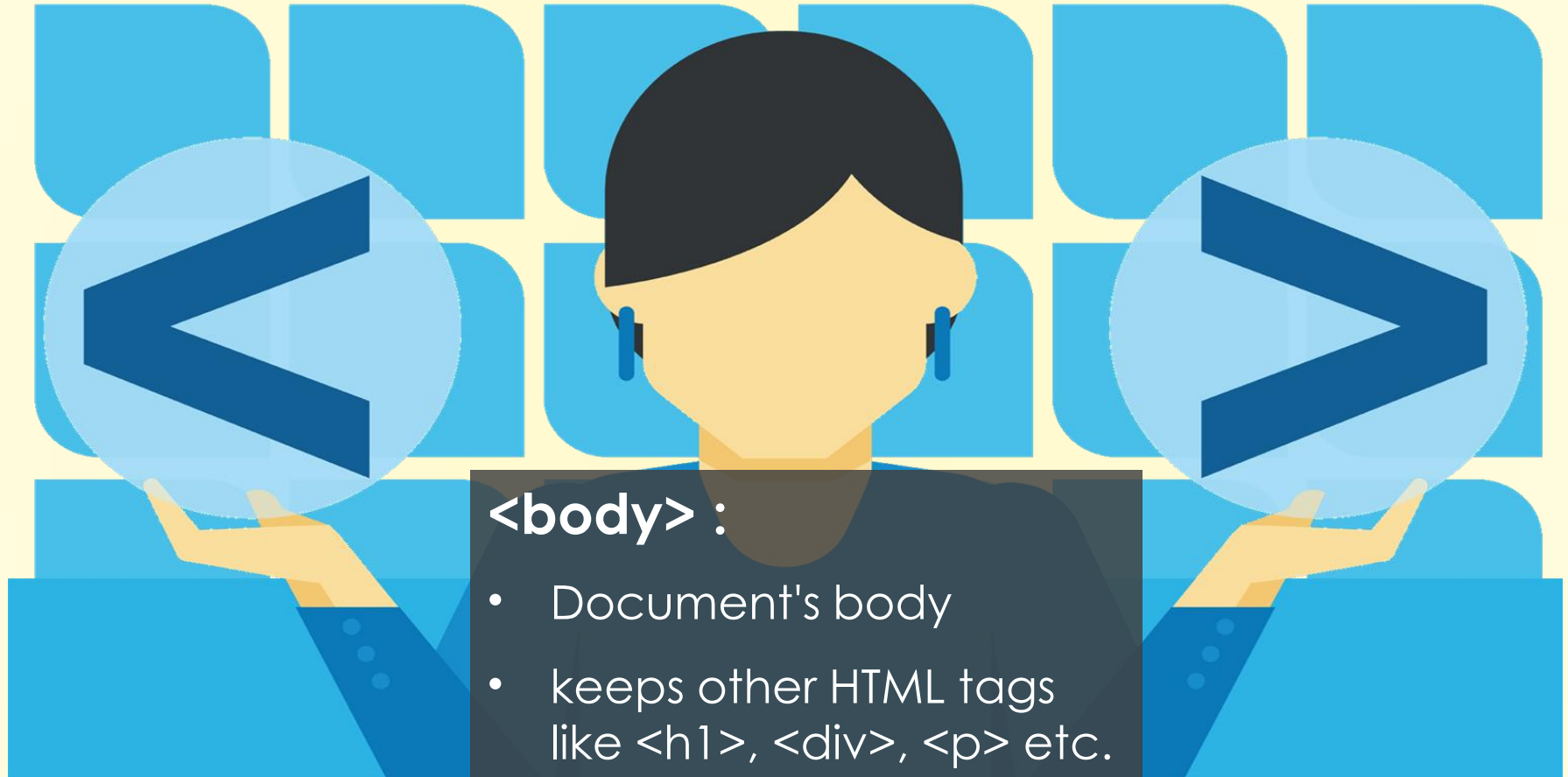
Common tags



<head> :

- document's header
- Contain other HTML tags like <title>, <link> etc.
- **<title>** : document title

Common tags



<body> :

- Document's body
- keeps other HTML tags like <h1>, <div>, <p> etc.

sample

```
<HTML>
```

```
<HEAD>
```

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

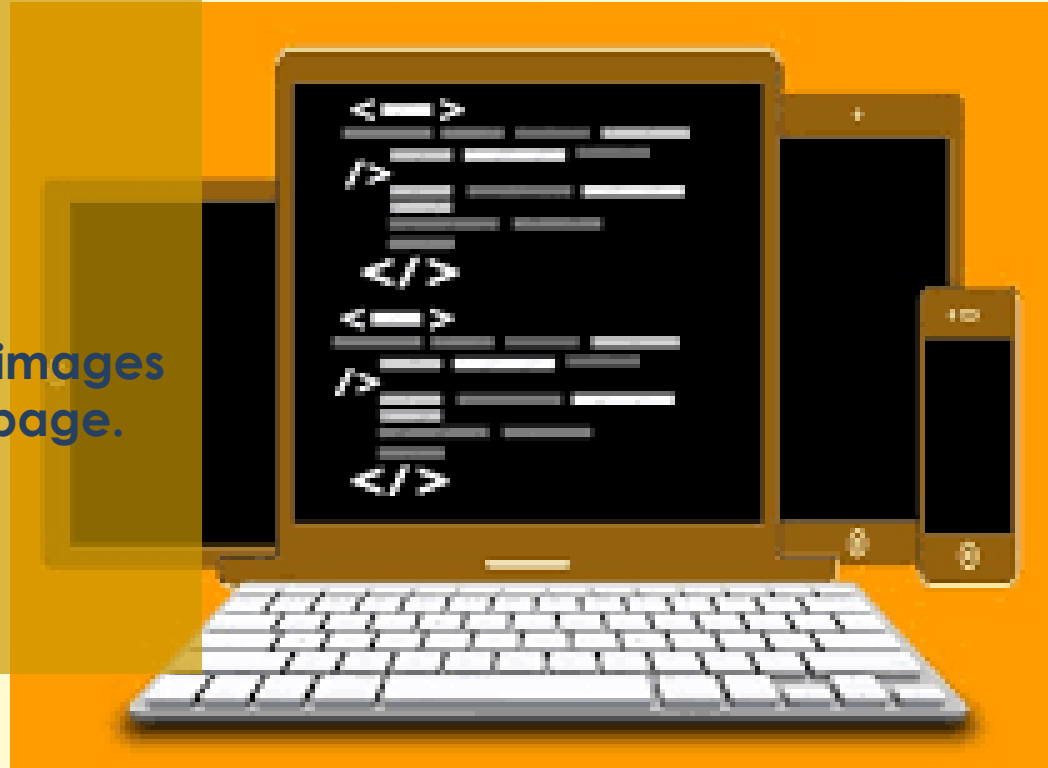
```
</HEAD>
```

```
<BODY>
```

This is where the text and images
are included on the Web page.

```
</BODY>
```

```
</HTML>
```



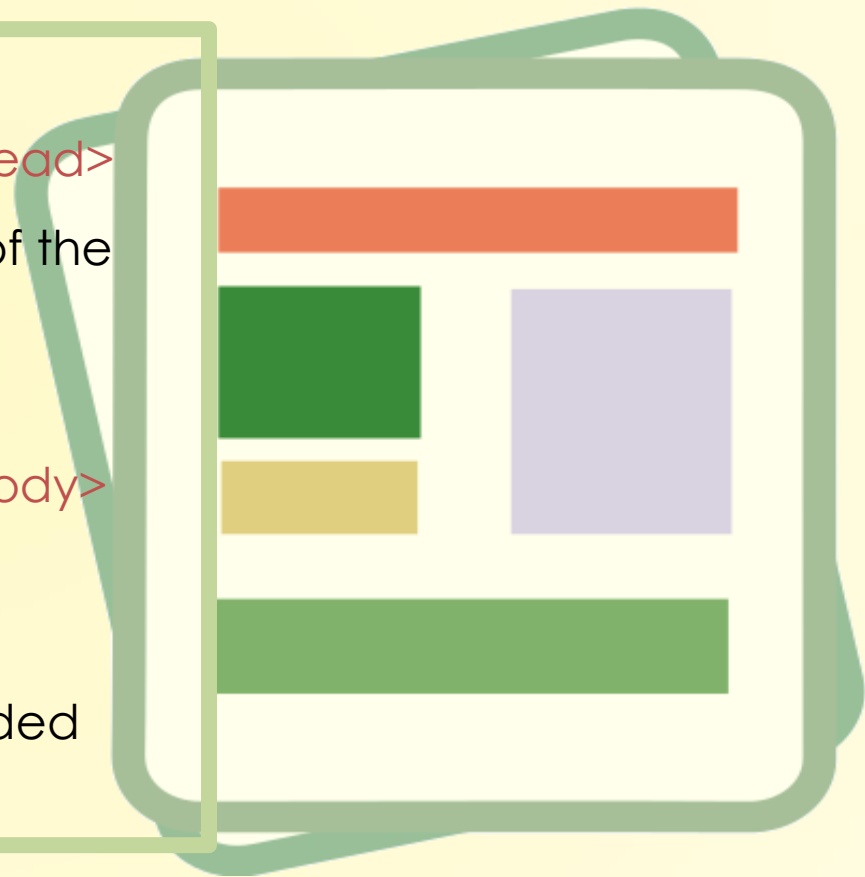
HTML Document Structure



- Entire document enclosed within `<html>` and `</html>` tags
- Two subparts:
 - Head
 - Body

HTML Document Structure

- **Head**
 - Enclosed within `<head>` and `</head>`
 - more tags within, to specify title of the page, meta-information, etc.
- **Body**
 - Enclosed within `<body>` and `</body>`
 - Within the body, content is to be displayed
 - Many other tags can be embedded



Page Structure

```
<html>
```

```
<head>
```

```
<title>Page title</title>
```

```
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

```
</body>
```

```
</html>
```

Page Title

- Title of the webpage
- Determines its ranking in certain search engines
- Identify the webpage
- Appear on:
 - Favorite lists
 - History lists
 - Bookmark lists



— Structure of a Web Page



- All Web pages share a common structure
- All Web pages should contain a pair of:
 - <HTML>
 - <HEAD>
 - <TITLE>
 - <BODY>



**HTML: Commonly used
tags**

— Tag Description

`<html>`

HTML
Document

`<body>`

Document body

`<h1>..<h6>`

Heading from
size 1 to 6

`<p>`

paragraph

`
`

Single line break

`<!-->`

comment

— Heading Tag

- Defined with the `<h1>` to `<h6>` tags
- `<h1>` : the largest heading
- `<h6>` : smallest heading
- An extra blank line is automatically added before and after a heading

— Heading Tag

<h1>This is a heading</h1>

<h2>This is a heading</h2>

<h3>This is a heading</h3>

<h4>This is a heading</h4>

<h5>This is a heading</h5>

<h6> This is a heading</h6>

— Heading Tag

```
<html>
```

```
<body>
```

```
  <h1>This is heading 1</h1>
```

```
  <h2>This is heading 2</h2>
```

```
  <h3>This is heading 3</h3>
```

```
  <h4>This is heading 4</h4>
```

```
  <h5>This is heading 5</h5>
```

```
  <h6>This is heading only for headings.  
  Don't use them just to make something  
  bold. Use other tags for that </h6>
```

```
  <p>Use heading tags .</p>
```

```
</body>
```

```
</html>
```

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading only for headings. Don't use them just to make something bold. Use other tags for that

Use heading tags .

— Heading Attribute

A useful attribute is align

```
<h5 align="left"> I can align headings </h5>
```

```
<h5 align="center">This is a centered heading </h5>
```

```
<h5 align="right">This is a heading aligned to the right </h5>
```

— Heading Attribute : Align

```
<html>
```

```
<body>
```

```
<h1 align="center">This is heading 1</h1>
```

```
<p>The heading above is aligned to the center of this page. The  
heading above is aligned to the center of this page. The heading above  
is aligned to the center of this page.</p>
```

```
</body>
```

```
</html>
```

This is heading 1

The heading above is aligned to the center of this page. The heading above is aligned to the center of this page. The heading above is aligned to the center of this page.

Paragraph Tag

- Paragraphs are defined with the <p> tag
- align attribute can be used

```
<p align="left">This is a paragraph</p>
```

```
<p align="center">this is another paragraph</p>
```

— Paragraph Tag

```
<html>
```

```
<body>
```

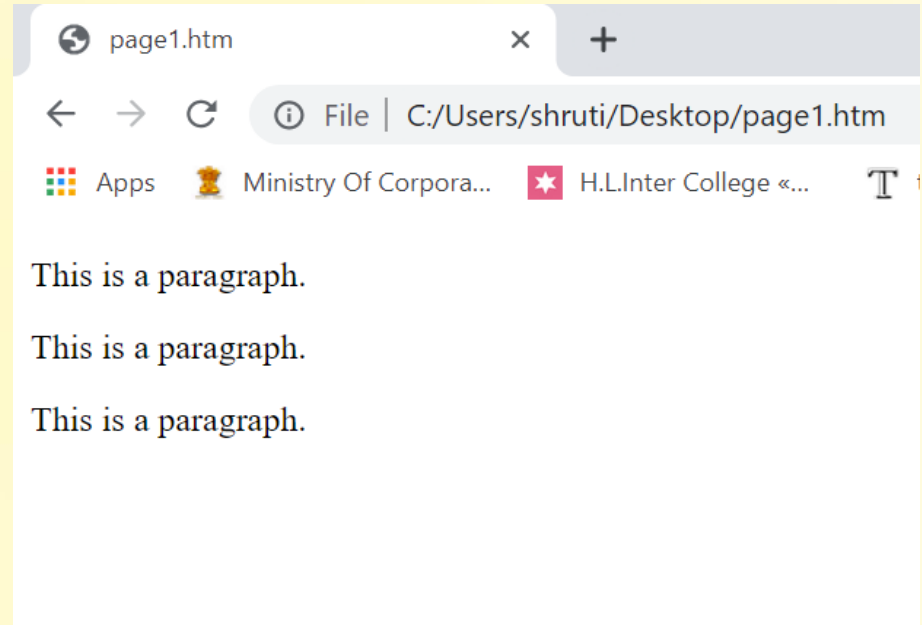
```
<p>This is a paragraph.</p>
```

```
<p>This is a paragraph.</p>
```

```
<p>This is a paragraph.</p>
```

```
</body>
```

```
</html>
```



HTML Display

Example

- `<p>`
This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.
`</p>`
`<p>`
This paragraph
contains a lot of spaces
in the source code,
but the browser
ignores it.
`</p>`

This paragraph contains a lot of lines in the source code, but the browser ignores it.

This paragraph contains a lot of spaces in the source code, but the browser ignores it.

— Line Break

- `
` tag
- Start a new line and not a new paragraph
- Forces a line to break wherever placed
- **The Code :**
`<p>This
 is a para
 graph with line breaks</p>`
- **Would Display :**
This
is a para
graph with line breaks

Line Break

```
<html>
```

```
<body>
```

```
  <h1>A Poem</h1>
```

```
  <p>Be not afraid of  
  greatness.<br>
```

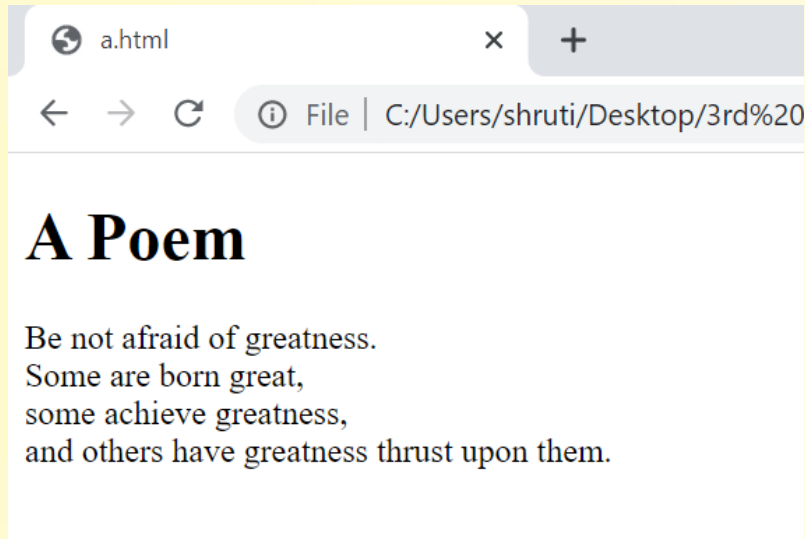
```
  Some are born great,<br>
```

```
  Some achieve greatness, <br>
```

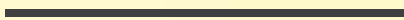
```
  And others have greatness  
  thrust upon them.</p>
```

```
</body>
```

```
</html>
```



Horizontal rule

- `<hr>` element
- Act as dividers between sections
- No closing tag
- Takes attributes such as align and width
- **This Code :** `<hr width="50%" align="center">`
- **Would Display:** 

— Horizontal Rule

Example

- `<h1>This is heading 1</h1>`
`<p>This is some text.</p>`
`<hr>`
`<h2>This is heading 2</h2>`
`<p>This is some other text.</p>`
`<hr>`

This is heading 1

This is some text.

This is heading 2

This is some other text.

— Horizontal Rule

```
<html>
```

```
<body>
```

```
  <p>The hr tag defines a horizontal rule:</p>
```

```
  <hr>
```

```
  <p>This is a paragraph</p>
```

```
  <hr>
```

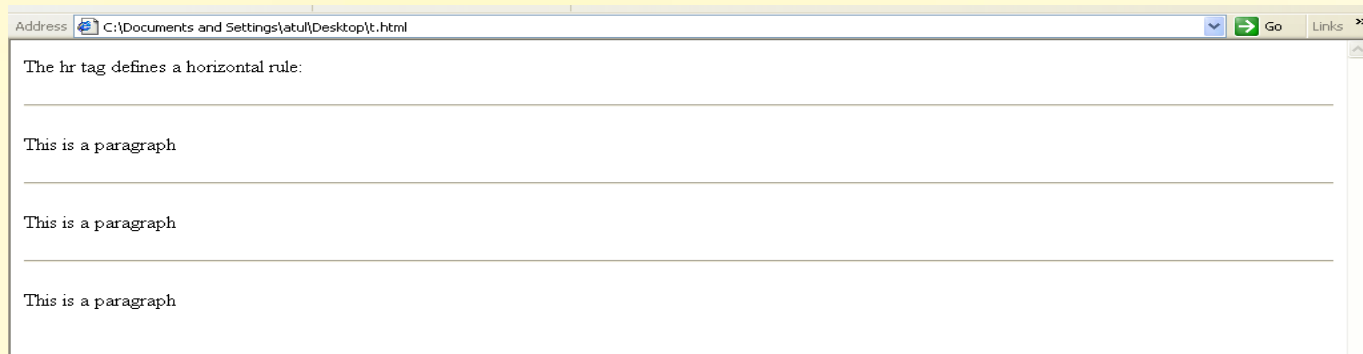
```
  <p>This is a paragraph</p>
```

```
  <hr>
```

```
  <p>This is a paragraph</p>
```

```
</body>
```

```
</html>
```



— Comment Tag

- insert comments in the source code
- Comments are not displayed in the browsers.
- Used to explain the code
- Syntax: `<!-- . . . -->`

— Comment Tag

```
<html>
```

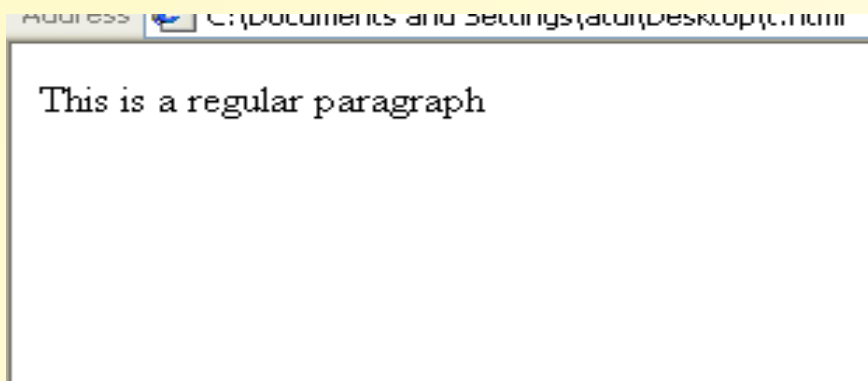
```
<body>
```

```
  <!--This comment will not be displayed-->
```

```
  <p>This is a regular paragraph</p>
```

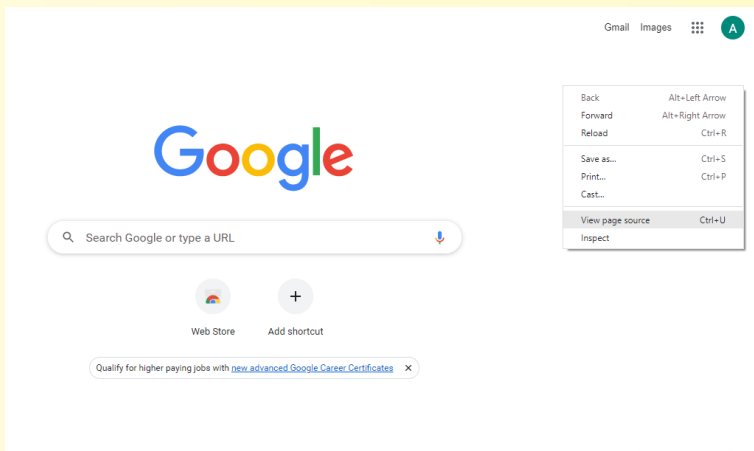
```
</body>
```

```
</html>
```



— Viewing the HTML Source

- Right-click in an HTML page and select "View Page Source" / "View Source"
- A window containing the HTML source code of the page will be opened.



```
Line wrap [ ]
1 <!doctype html>
2 <html dir="ltr" lang="en">
3   <head>
4     <meta charset="utf-8">
5     <title>New Tab</title>
6     <style>
7       body {
8         background: #FFFFFF;
9         margin: 0;
10      }
11
12      #backgroundImage {
13        border: none;
14        height: 100%;
15        pointer-events: none;
16        position: fixed;
17        top: 0;
18        visibility: hidden;
19        width: 100%;
20      }
21
22      [show-background-image] #backgroundImage {
23        visibility: visible;
24      }
25    </style>
26  </head>
27  <body>
28    <iframe id="backgroundImage" src=""></iframe>
29    <ntp-app></ntp-app>
30    <script type="module" src="new_tab_page.js"></script>
31    <link rel="stylesheet" href="chrome://resources/css/text_defaults_md.css">
32    <link rel="stylesheet" href="chrome://theme/colors.css?sets=ui.chrome">
33    <link rel="stylesheet" href="shared_vars.css">
34  </body>
35 </html>
36
```

— Inspecting the HTML Element

- Right-click on an element (or a blank area), and choose "Inspect" or "Inspect Element" to see what elements are made up of
- One can also edit the HTML on-the-fly in the Elements or Styles panel that opens



**HTML: Commonly used
tags**

— Some other tags



— Some other tags



— HTML Element

- An HTML element is a component of an HTML document that tells a web browser how to structure and interpret a part of the HTML document.
- An **HTML element** is defined by a starting tag
- If the element contains other content, it ends with a closing tag, where the element name is preceded by a forward slash
- Example:

<body>

My first homepage. This text is bold

</body>

— HTML Element

This is an HTML element:

`This text is bold`

- The HTML element begins with a start tag: ``
- The content of the HTML element is: `This text is bold`
- The HTML element ends with an end tag: ``
- `` tag : define an HTML element that should be displayed as bold.

Attributes

- All elements can have attributes
- Attributes provide additional information about an element
- Specified in the start tag always
- Come in name/value pairs like: **name="value"**
 - **Name:** the property to be set
 - **Value:** value of the property to be set and always put within quotations.

— Attribute Example

- Attribute name: align
- Value: left, center and right
- Tag: Heading

`<h5 align="left"> I can align headings </h5>`

`<h5 align="center">This is a centered heading </h5>`

`<h5 align="right">This is a heading aligned to the right </h5>`

— Attribute

- Attributes provide additional information about the HTML elements
- `<tag>` tells the browser to do something, while the attribute tells the browser how to do it
- Example:
- With `bgcolor` attribute, we can tell the browser that the background color of the page should be blue:

```
<body bgcolor="blue">
```

Quote styles

"red" or 'red'?

- Attribute values should always be enclosed in quotes
- Double style quotes : most common
- single style quotes: allowed in rare situations
- Example: when the attribute value itself contains quotes, it is necessary to use single quotes:

name='John "machine Gun" Kelly'

— href Attribute

- HTML links are defined with the <a> tag
- The link address is specified in the href attribute:
- Example:

```
<a href="https://www.w3schools.com">This is a link</a>
```

— src attribute

- HTML images are defined with the tag
- The filename of the image source is specified in the src attribute:

```

```

— Width and Height attributes

- Images in HTML have a set of **size** attributes
- specifies the width and height of the image
- Example

```

```

- The image size is specified in pixels: width="500" means 500 pixels wide

— Alt attribute

- Specifies an alternative text to be used, when an image cannot be displayed
- The value of the attribute can be read by screen readers
- This way, someone "listening" to the webpage, e.g. a blind person, can "hear" the element

— Alt attribute

- Example:

```

```



- The alt attribute is also useful if the image does not exist:

```

```



A bitten apple

— Lang attribute

- Declare the language
- declared in the <html> tag
- Important for accessibility applications (screen readers) and search engines:

```
<!DOCTYPE html>  
<html lang="en-US">  
<body>  
...  
</body>  
</html>
```

- The first two letters specify the language (en). If there is a dialect, use two more letters (US).

— title attribute

- Give description on mouse hover
- Example:

```
<p title="I'm a paragraph">  
This is a paragraph.  
</p>
```

- The value of the title attribute will be displayed as a tooltip when mouse hover over the paragraph

The title Attribute

Mouse over this paragraph, to display the title attribute as a tooltip.

I'm a paragraph

— Character Entities

- Some characters have a special meaning in HTML
- The less than sign (<) defines the start of an HTML tag
- To actually display the characters, their character entities are placed instead of actual characters themselves
- Entities are case sensitive

— Defining The Character Entity

A character entity has three parts:

- an ampersand (&)
- an entity name or an entity number
- a semicolon (;)

— Defining The Character Entity

- & → beginning a special character
- ; → ending a special character
- letters in between → an abbreviation for what it's for
- Example: To display a less than sign, we write: < or <

— Defining The Character Entity

Advantage of using a name:

- name is easier to remember

Disadvantage :

- all browsers do not support the newest entity names, while the support for entity numbers is very good in almost all browsers

Most Common Character Entities

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	double quotation mark	"	"
'	single quotation mark (apostrophe)	'	'
©	copyright	©	©
®	registered trademark	®	®

— Non Breaking Space

- The most common character entity
-
- HTML truncate spaces in the text
- Example:
- This Code:

`<p> This code would appear as this.</p>`

- Would Display:

This code would appear as this.

— Non Breaking Space

- On using the character entity
- Example:

This Code:

`<p> This code would appear with three spaces</p>`

Would Display:

This code would appear with three spaces



HTML: Important Concepts

— <head> Element

- It has nothing to do with HTML headings
- It is a container for metadata
- HTML metadata is data about the HTML document
- Metadata is not displayed
- Metadata typically define the document title, character set, styles, links, scripts, and other meta information

— <meta> Element

- The <meta> tag defines metadata about an HTML document. Metadata is data (information) about data.
- <meta> tags always go inside the <head> element, and are typically used to specify character set, page description, keywords, author of the document, and viewport settings.
- Metadata will not be displayed on the page, but is machine parsable.
- Metadata is used by browsers (how to display content or reload page), search engines (keywords), and other web services.

— <meta> Element

- Define the character set used:

```
<meta charset="UTF-8">
```

- Define keywords for search engines:

```
<meta name="keywords" content="HTML, CSS, JavaScript">
```

- Define a description of your web page:

```
<meta name="description" content="web designing">
```

- Define the author of a page:

```
<meta name="author" content="John Doe">
```

— <meta> Element

```
<head>  
  <meta charset="UTF-8">  
  <meta name="description" content=" Web Designing">  
  <meta name="keywords" content="HTML, CSS, JavaScript">  
  <meta name="author" content="John Doe">  
  <meta name="viewport" content="width=device-width, initial-scale=1.0">  
</head>
```


— <head> Element

- The <head> element is placed between the <html> tag and the <body> tag:

```
<html>
```

```
<head>
```

```
  <title>My First HTML</title>
```

```
  <meta charset="UTF-8">
```

```
</head>
```

```
<body>
```

-
-
-

— <pre> Element

- Defines preformatted text
- The text inside a <pre> element is displayed in a fixed-width font (usually courier)
- Preserves both spaces and line breaks

`<pre>` Element

Example

`<pre>`

My Shell lies over the ocean.

My Shell lies over the sea.

My Shell lies over the ocean.

Oh, bring back my shell to me.

`</pre>`

My Shell lies over the ocean.

My Shell lies over the sea.

My Shell lies over the ocean.

Oh, bring back my shell to me.

- **Bold Text**

Anything that appears within `...` element, is displayed in bold

- **Italic Text**

Anything that appears within `<i>...</i>` element is displayed in italicized

- **Underlined Text**

Anything that appears within `<u>...</u>` element, is displayed with underline

Strike Text

Anything that appears within `<strike>...</strike>` element is displayed with strikethrough, which is a thin line through the text

price ~~Rs500~~ Rs300

Monospaced Font

The content of a `<tt>...</tt>` element is written in monospaced font. Most of the fonts are known as variable-width fonts because different letters are of different widths (for example, the letter 'm' is wider than the letter 'i'). In a monospaced font, however, each letter has the same width.

The following word uses a monospaced

Superscript Text

The content of a `^{...}` element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.

The following word uses a ^{superscript} typeface.

Subscript Text

The content of a `_{...}` element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character's height beneath the other characters.

Inserted Text

Anything that appears within `<ins>...</ins>` element is displayed as inserted text.

Deleted Text

Anything that appears within `...` element, is displayed as deleted text.

I want to drink ~~cola~~ wine

- **Larger Text**

The content of the `<big>...</big>` element is displayed one font size larger than the rest of the text surrounding

The following word uses a **big** typeface.

Smaller Text

The content of the `<small>...</small>` element is displayed one font size smaller than the rest of the text surrounding

The following word uses a small typeface.

Grouping Content

The **<div>** and **** elements allow you to group together several elements to create sections or subsections of a page.

[HOME](#) | [CONTACT](#) | [ABOUT](#)

Content Articles

Actual content goes here.....

Thank You