HTML

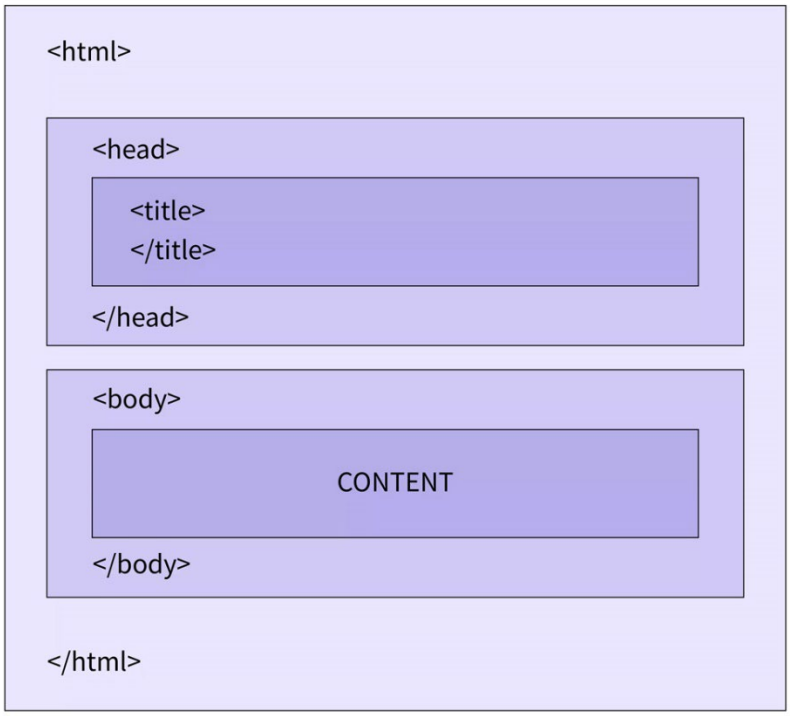
HTML is used for creating Web pages and web applications (ex. webmail, online retail sales, online auctions, wikis, instant messaging services and many other).

HTML stands for **Hyper Text Markup Language**
Hypertext is text with which objects (other text, images, videos, html pages and so on) can be linked to each other with hyperlinks.
Markup Language is a standard set of keywords that are placed within tags (angle brackets)

Browsers do not display the HTML tags, but use them to render the content of the page

HTML indicates the content of a web page and its basic structure. You can think of HTML elements as the building blocks of HTML pages. But how those elements look and are positioned – that is the work of CSS (Cascading Style Sheet)

HTML PAGE FUNDAMENTAL STRUCTURE




```
<!DOCTYPE html>
<html>
    <head>
   <meta charset="utf-8">
        <title>
Title of the page, which people see in the title bar or tab
        </title>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
Nothing goes between head and body!
    <body>
Body content goes here. This is what people see on the web page.
    </body>
</html>
```

Notes:
1. The basic tabs shown above appear only once per HTML document because there is only one head (with one title) and only one body (like in a person).
2. UTF-8 stands for "Unicode Transformation Format - 8 bits." It can translate any Unicode character to a matching unique binary string (and vice versa). It used for many languages.
3. This gives the browser instructions on how to control the page's dimensions and scaling. It sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

HTML Tags < >

- HTML tags are keywords (tag names) surrounded by angle brackets like <html>
- HTML tags always come in pairs – the start and the end tags; the end tag is written with a forward slash before the tag name.

Example: some text
Note: two tags do not have closing tags: <img> and

- If an element has several tags, they must be nested.

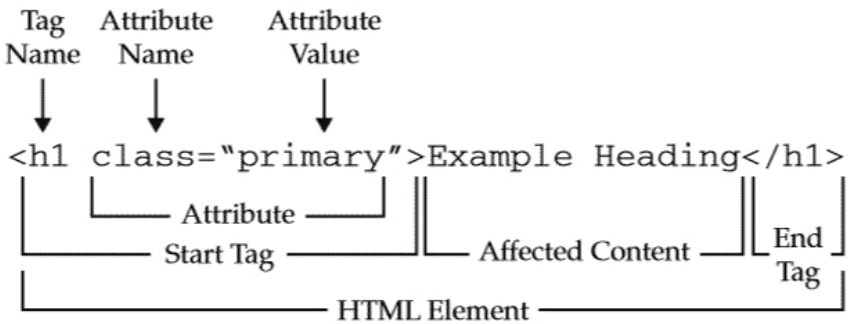
Example: ****some text****
(This is wrong: some text)

A few random tag examples:

<body></body> Defines the document's body
<nav></nav> Defines a section for navigation
<table></table> Creates a table
<video></video> Defines video or movie content
<hl></hl> Creates the largest headline
 Creates bold text
 Creates italic text
 Creates a new paragraph

 It breaks the line.
 Defines an unordered list

HTML Elements: tag and attributes (name and value)



SEVERAL HTML ELEMENTS:

IMAGE
<img src="file name"> Adds an image
Example: **< img src="cat.jpg" alt="white cat" />**
(The alt attribute specifies an alternative text to be used, when an image cannot be displayed. It also needed for SEO)

LINKS
****anything**** Creates a hyperlink
Example:
****Visit our site****
****Visit our site****
The text **target="_blank"** opens the page in another browser

LINK AS AN IMAGE
<img src="file name"> Creates an image that is a link
Example:
<img src="Sid.jpg">

EMAIL
****my email**** Creates a mailto link
Example:
****my email****

LISTS
**
** Creates a numbered list
**
** Creates a bulleted list
**
** Precedes each list item, and adds a number or symbol depending upon the type of list selected

Examples

```
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>
```

In a browser it looks like this:

- Coffee
- Milk

```
<ol>
<li>Coffee</li>
<li>Milk</li>
</ol>
```

1. Coffee
2. Milk

HTML5

HTML5 is semantic; it means that it is written with a linguistic way that emphasizes the meaning of the encoded information over its presentation (look).
Example: the HTML5 tag that makes the text bold is , while the in HTML4 it was <b> (which is deprecated now).

Some examples of deprecated elements:
Tags: , , <embed>, <u> and more. Body attributes: link, alink, vlink, text, bgcolor and more. Also, it is not recommended to use multiple
 tags (for vertical distance) and multiple   characters (for horizontal distance)

All these deprecated attributes can be replaced with stylesheet controls, for example:
Instead of ****some text****
Should be written ****come text****

DISPLAY OF ELEMENTS

Each element by default is positioned (displayed) differently: under each other or next to each other:

1. A block element has a line break before and after it; therefore, other elements cannot be on the same line as it.
Examples of block elements: **h1** to **h6**; **p**; lists: **ul, ol, li**; **div** (box); **table**

2. An inline element allows other elements to be positioned next to it.
Examples of inline elements: **links**; **text**; **images**; **span** (span tag is used in CSS for formatting text)
Simple way to put inline elements under each other is to insert
 tags between them

TABLES

HTML tables are usually used to arrange a tabular data into rows and columns of cells (also, there can be placed images, links, forms, form fields, other tables, etc.)

<table></table> Creates a table
<tr></tr> Sets off each row in a table
<td></td> Sets off each cell in a row
Each <tr> can have multiple <td>

Example

```
<table>
<tr>
<td>coffee Americano </td>
<td>coffee Latte</td>
</tr>
<tr>
<td>Cappuccino</td>
<td>Espresso</td>
</tr>
</table>
```

In a browser it looks like this:

Coffee Americano	Coffee Latte
Cappuccino	Espresso

TABLE ATTRIBUTES
Width, height, background color and image, border width, etc.
TR ATTRIBUTES
(No width and height), background color and image, alignment of content horizontally and vertically.
TD ATTRIBUTES
Width and height, background color and image, border width, alignment of content horizontally and vertically, etc

IFRAME

Iframe is an empty rectangular region within the document, inside which the browser can display a separate document **(**like inside a hole of it**).** It is used to insert content from another source into that document (another web page, image, local or online video, google map. etc.)

<iframe src="*URL*"></iframe>

Note: iframe has a closing tag, but nothing is written between opening and closing tags.

IFRAME HAS 2 MAJOR SECTIONS:

Iframe src – is for the link to the content that should be displayed within the iframe when the page with the iframe initially loads (You don't want to look at empty hole inside the iframe)

Iframe name – is to tell the content where to appear when the user clicks on a corresponding link

Iframe has to have width and height, and can have other attributes.

HOW TO WORK WITH IFRAMES:

You simply give an iframe a name, and then tell the chosen content (let's say an image) to be displayed in the iframe with that name (a name needed because there could be several Iframes in a document)

Example:

We prepared an HTML document "index.html" with iframe, another HTML document "cats.html" with text about cats, and two files with cat pictures "whitecat.jpg" and "blackcat.jpg" (of course in the same folder).

We give the logical name "contents" to the iframe (it can be any name)

When the user opens that page, first we want him to see the text about cats.

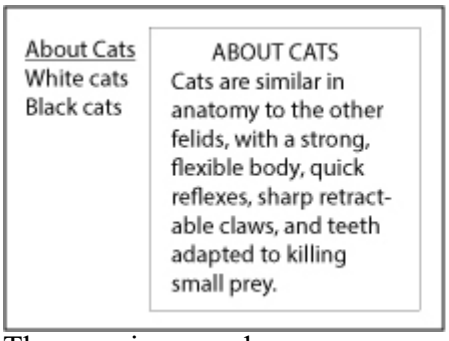
<iframe src="cats.html" name="contents" width="450" height="540" border="0" > </iframe>

Then, there should be three links in "index.html" document: two links to retrieve one of the pictures and one link to retrieve "cats.html" file. Every time when the user clicks on a White cats or a Black cats link, the corresponding picture will be displayed inside the iframe; when the user clicks on About Cats link, the file cats.html with the text will be displayed again.

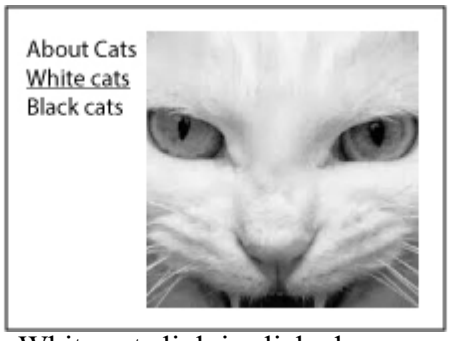
<a href="cats.html" target="contents"> About Cats**<a>**

<a href="whitecat.jpg" target="contents"> White cats**<a>**

<a href="blackcat.jpg" target="contents"> Black cats**<a>**



The page is opened
or About Cats link is clicked



White cats link is clicked

Black cats link is clicked