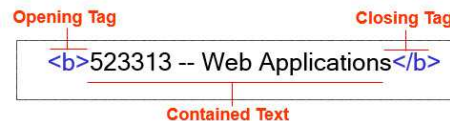


```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
<HTML>
<HEAD>
<TITLE> New Document
<META NAME="Generator" CONTENT="EditPlus"
<META NAME="Author" CONTENT="
<META NAME="Keywords" CONTENT="
<META NAME="Description" CONTENT="
</HEAD>
<BODY>
</BODY>
</HTML>

```

# HTML



## 01 Introduction to HTML I

### About HTML

523313 Web Applications

#### What is HTML?

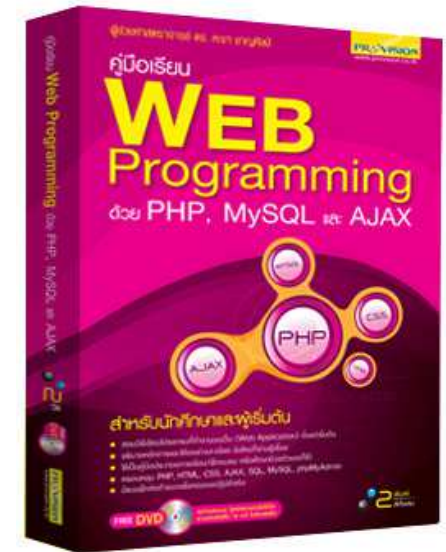
- To publish information for global distribution, one needs a **universally understood language**, a kind of publishing mother tongue that all computers may potentially understand.
  - The publishing language used by the World Wide Web is **HTML** (from **HyperText Markup Language**)
- HTML gives online authors the means to:
  - Publish documents with headings, text, tables, lists, photos, etc.
  - Retrieve information via hypertext links, at the click of a button.
  - Design forms for conducting transactions with remote services, for use in searching for information, ordering products, etc.
  - Include spread-sheets, video clips, sound clips, and other applications directly in their documents.

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### Introduction to HTML I

523313 Web Applications

- About HTML
- HTML Building Block
- Starting Your Web Page
- Basic HTML
- Workshop



2

### About HTML

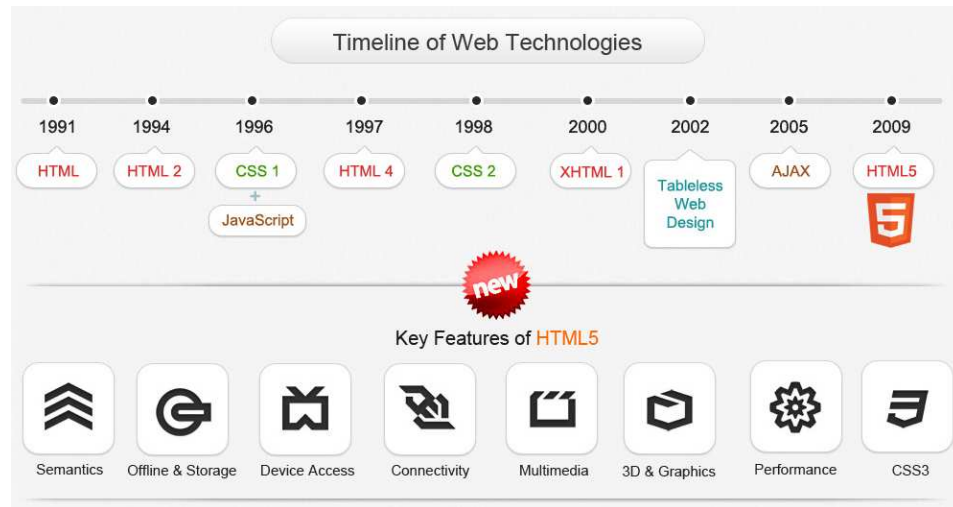
523313 Web Applications

#### HTML 4

- Extended HTML with mechanisms for:
  - style sheets
  - scripting
  - frames
  - embedding objects
  - improved support for right to left and mixed direction text
  - richer tables
  - enhancements to forms
  - offering improved accessibility for people with disabilities

4

## Evolution of HTML



5

## A Simple of HTML File

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
  <HEAD>
    <TITLE> The document title </TITLE>
    <META NAME="Generator" CONTENT="EditPlus">
    <META NAME="Author" CONTENT="">
    <META NAME="Keywords" CONTENT="">
    <META NAME="Description" CONTENT="">
  </HEAD>
  <BODY>
    <HR width=60%>
    <P>This is a sample</P>
    <HR>
  </BODY>
</HTML>
```

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## Meta Elements

- People use search engine to find useful Web sites.
- Two important attributes of the meta element are:
  - name: identifies the type of data element
  - content: provides the information search engines use to catalog page
- Two important meta elements are:
  - keywords: a list of words that describe a page  
`<META NAME="Keywords" CONTENT="design,screen,color,font">`
  - description: a three-to four-lines description of a site  
`<META NAME="Description" CONTENT="This web site will help you learn the basics of HTML and web page design through the use of interactive samples and instruction.">`

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## HTML Document

- An **HTML document** is just plain text containing formatting markup commands.
- There are only two things an HTML document will contain:
  - **content** - the actual substance of the document
  - **tags** - these describe the structure of the content and how it should be formatted... these are what HTML is about...
- Because an HTML document is stored as just plain text, you can load it into any ordinary text editing program such as Notepad (PCs), Bbedit (MAC), or gEdit (LINUX)
  - as the web has evolved so have the creation tools.
    - Dreamweaver ([www.macromedia.com](http://www.macromedia.com))
    - GoLive ([www.adobe.com](http://www.adobe.com))
    - FrontPage ([www.microsoft.com](http://www.microsoft.com))

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## Raw HTML

- For the purposes of this unit you will be doing the following
  - entering HTML commands into a Text Editor
  - previewing HTML documents in a Web Browser
  - mostly simple HTML elements... advanced ones are OK too :-)
- All commands entered into programs such as DreamWeaver behind the scenes actually create the respective HTML tags, by gaining an understanding of these tags and the structure and principles that surround them you will be able to gain a greater understanding of how the web really works...
  - Most people don't document their code, or care how easily it is interpreted, thus if you can only use Dreamweaver and you're employed in a organization that doesn't use it, then you are at a disadvantage, however HTML is standard.

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## The Aims of HTML

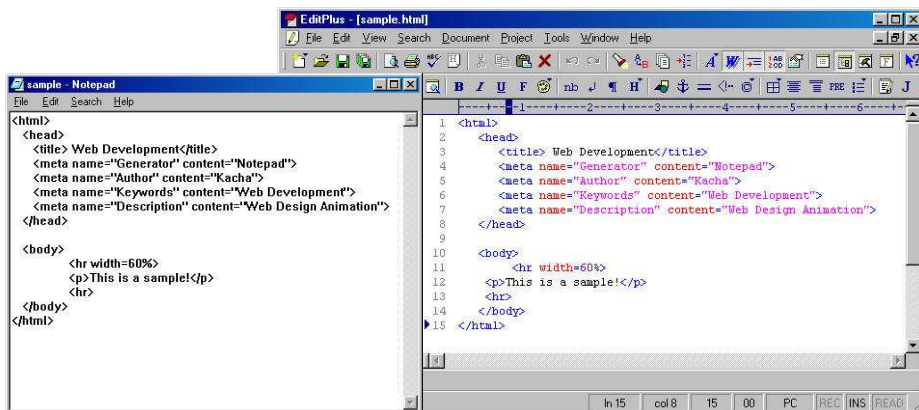
- Most people agree that HTML documents should **work well across different browsers and platforms**.
- Achieving inter-operability **lowers costs** to content providers since they must develop only one version of a document.
- Each version of HTML has attempted to **reflect greater consensus** among industry players.
- HTML has been developed with the vision **that all manner of devices should be able to use information on the Web**.
  - PCs with graphics displays of varying resolution and color depths, cellular telephones, hand held devices, devices for speech for output and input, computers with high or low bandwidth, and so on.

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# HTML Building Blocks

## Writing HTML

- using word processor or text editor
- Web page editor e.g., EditPlus, PageMill, Dreamweaver, etc.

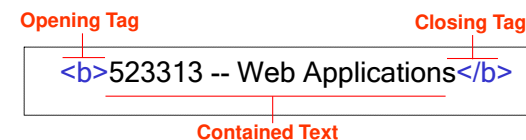


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# HTML Building Blocks

## Elements and Tags

- written between less than (<) and greater then (>) signs as known as *angle brackets*
- Tags in HTML are NOT case sensitive
  - <title> and <TitLE> both mean the same thing and are interpreted as being the same. However, in newer HTML standards, it is highly suggested that you keep all tags lowercase, that is, it is better to use <title> than <TITLE>



- Output will be:  
523313 -- Web Applications

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## Attributes

- an element's **attributes** define various **properties** for it...
  - for example, the IMG element takes a SRC attribute to provide the location of the image and an ALT attribute to give alternate text for those not loading images:

```

```

Opening Tag

Value

```
<table border="1">
...
</table>
```

Attribute

Closing Tag

- Value should be enclosed in quotation marks
- Attributes are included in the **Opening tag only**;

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## Nesting Tags

- Tags can be nested by using closing tag that correspond to the last unclosed opening tag

```
<b>523313 -- Web Applications<i> SUT</i></b>
```



```
<b>523313 -- Web Applications<i> SUT</b></i>
```



- Output will be:  
**523313 -- Web Applications *SUT***

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## Special Characters

- Certain characters in HTML are reserved for use as markup and must be **escaped to appear literally**
  - "<" may be represented with an **entity**, &lt; and ">" is escaped as &gt;;
  - "&" is escaped as &amp;
- Other entities exist for special characters that cannot easily be entered with some keyboards.
  - For example, the copyright symbol may be represented with the entity &copy;
- Comments in HTML have a complicated syntax that can be simplified by following this rule: Begin a comment with "<!--", end it with "-->", and do not use "--" within the comment.

- For example:

```
<!-- An example comment -->
```

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## File Names

- Use lowercase letter
- Use the proper name (e.g., welcome, download, links, etc)
- Use the proper extension (\*.htm or \*.html)
- First page should be called "index.htm" or "index.html"

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## Designing Your Site

- Why you are creating this page?
- What do you want to convey?
- How can you tailor your content to appeal to the audience?
  - Lots of graphics or Lot of Text?
- How the visitors will explore your site?
  - A particular direction or Any direction?
- Sketch out your site on paper
- Devise a simple, consistent naming system for your pages, images, and other external file.

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## Sixteen Predefined Colors

- The color names and hex values are not case-sensitive, not even in XHTML

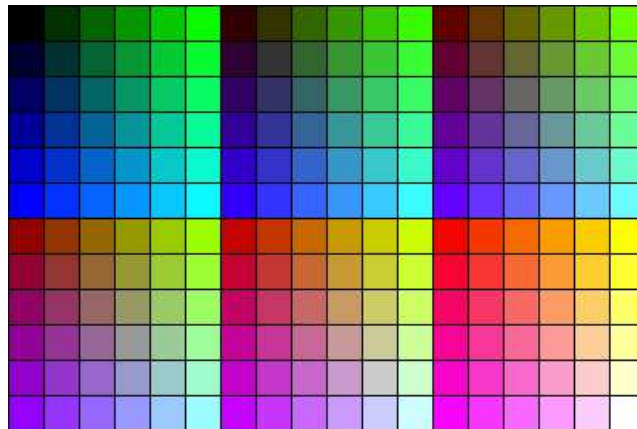


Note: All modern browsers support the following 140 color names  
[https://www.w3schools.com/colors/colors\\_names.asp](https://www.w3schools.com/colors/colors_names.asp)

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## Web Safe Colors

- 216 Web Safe Colors



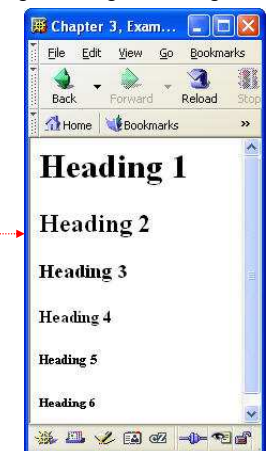
Note: Most modern monitors are capable of displaying at least 16384 different colors.  
[https://www.w3schools.com/colors/colors\\_shades.asp](https://www.w3schools.com/colors/colors_shades.asp)

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## Basic Text Structures

- Headings
  - Most commonly used to set apart document or section titles.
  - There are six levels of headings, from Heading 1 through Heading 6.
  - Heading 1 (h1) is "most important" and Heading 6 (h6) is "least important."

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```



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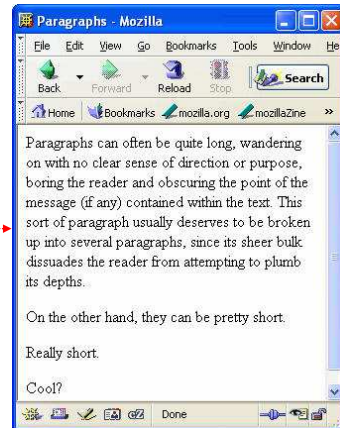


## Basic Text Structures

### ■ Paragraphs

- Most commonly used to set apart document or section titles.
- The beginning of a paragraph is marked by `<p>`, and the end by `</p>`

```
<p> Paragraphs can often be quite long,
wandering on with no clear sense of
direction or purpose, boring the reader and
obscuring the point of the message (if any)
contained within the text. This sort of
paragraph usually deserves to be broken up
into several paragraphs, since its sheer
bulk dissuades the reader from attempting to
plumb its depths. </p>
<p> On the other hand, they can be pretty
short. </p>
<p> Really short. </p>
<p> Cool?</p>
```



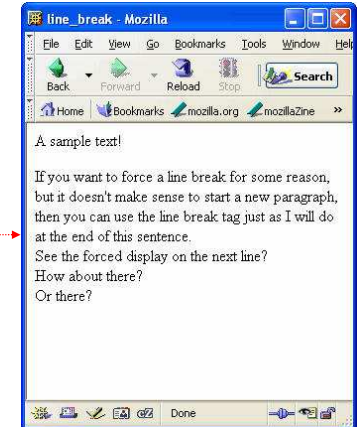
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## Basic Text Structures

### ■ Line Break

- The `<br>` tag is used to create a line break .
- There is no `</br>` tag. The line break tag is an empty tag.

```
<p>A sample text</p>
<p> If you want to force a line break for
some reason, but it doesn't make sense to
start a new paragraph, then you can use the
line break tag just as I will do at the end
of this sentence.<br> See the forced display
on the next line?<br> How about there?<br>
Or there?
</p>
```



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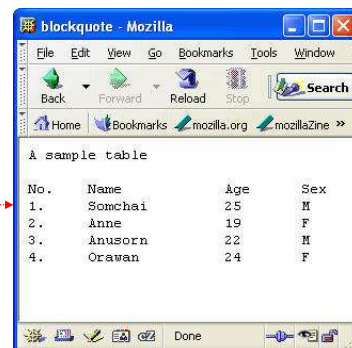
## Basic Text Structures

### ■ Preformatted Text

- The `<pre>` tag is used to maintain the original line breaks and spacing that you have inserted in the text.

```
<pre>A sample table

No.   Name      Age  Sex
1.    Somchai   25   M
2.    Anne      19   F
3.    Anusorn   22   M
4.    Orawan    24   F
</pre>
```

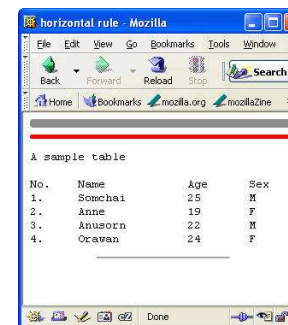


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## Basic Text Structures

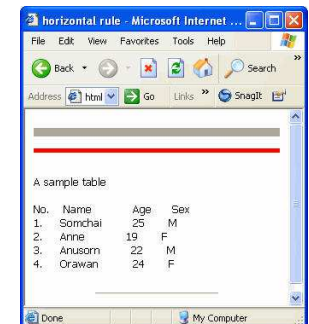
### ■ Horizontal Rule

- `<hr>`: horizontal rule
  - size= $n$  where  $n$  is the rule's height in pixel
  - width= $w$  where  $w$  is the width of the rule in pixels, or as a percent of the document's width
  - align=direction where *direction* refers to the way a rule should be aligned on the page; either left, right, or center.



```
<hr size="10" noshade>
<hr size="5" color="red">
<pre>A sample table

No.   Name      Age  Sex
1.    Somchai   25   M
2.    Anne      19   F
3.    Anusorn   22   M
4.    Orawan    24   F
</pre>
<hr width="50%" align="center">
```



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## Lists

### ■ Unordered Lists

- An unordered list has what is commonly called "bullets".
- The unordered list is contained within the Unordered list tags, `<ul> </ul>` tags.
- Each item in the list will be contained within the list item tags, `<li> </li>` tags.

```
I like these colors:
<ul>
  <li>Red</li>
  <li>Blue</li>
  <li>Yellow</li>
  <li>Black</li>
  <li>White</li>
</ul>
```



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## Lists

### ■ Ordered Lists

- An ordered list has what is commonly called "numbered list".
- The ordered list is contained within the Ordered list tags, `<ol> </ol>` tags.
- Each item in the list will be contained within the list item tags, `<li> </li>` tags.

```
Things I have learned
<ol>
  <li>Headings</li>
  <li>Paragraphs</li>
  <li>Line Break</li>
  <li>Preformatted Text</li>
  <li>Horizontal Rule</li>
  <li>Unordered Lists</li>
  <li>Ordered Lists</li>
</ol>
```



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## Lists

### ■ Definition Lists

- Definition lists are **not** based on list items.
- They are instead based on term-definition pairs.
- Definition lists begin and end with the tags `<dl>` and `</dl>`.

```
<dl>
  <dt>Do
  <dd>a deer, a female deer</dd></dt>
  <dt>Re
  <dd>a drop of golden sun</dd></dt>
  <dt>Mi
  <dd>a name I call myself</dd></dt>
  <dt>Fa
  <dd>a long, long way to run</dd></dt>
  <dt>Sol
  <dd>a needle pulling thread</dd></dt>
  <dt>La
  <dd>a note to follow so</dd></dt>
  <dt>Ti
  <dd>a drink with jam and bread</dd></dt>
</dl>
```



dl: definition list  
dt: definition term/name  
dd: definition description

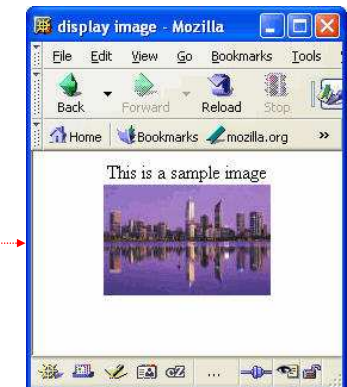
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## Images

### ■ Inserting an Image

- When you use an image, basically you are linking to it.
- The tag to add an image is the IMAGE tag, `<img>`.
- We have to tell them where the image is, so we use the src attribute to specify the image e.g., ``

```
<center>
  This is a sample image<br>
  
</center>
```



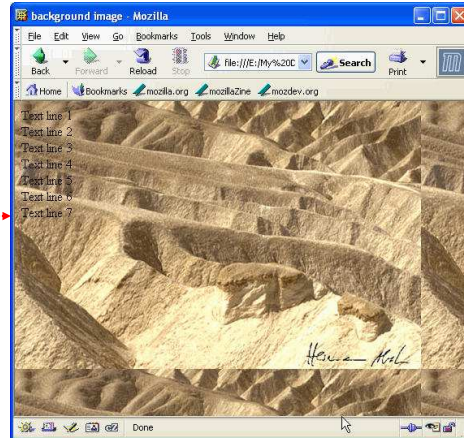
28

## Images

### ■ Background Image

- We can also use images as backgrounds by using the BODY tag e.g.,  
<body background="image/desert.jpg">

```
<body background="images/desert.jpg">
Text line 1<br>
Text line 2<br>
Text line 3<br>
Text line 4<br>
Text line 5<br>
Text line 6<br>
Text line 7<br>
</body>
```

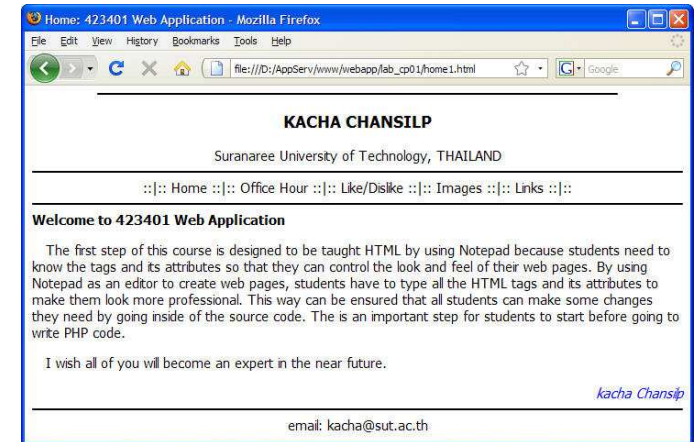


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## HTML I: Tags and Attributes

### ■ Laboratory 1

- Page 36 (1-5)



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