# Chapter 3
# Introduction to HTML

# Introduction of HTML

- HTML is a language for describing web pages.
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- HTML is not a programming language, it is a **markup language**
- A markup language is a set of **markup tags**
- HTML uses **markup tags** to describe web pages

•HOW TO CREATE AN HTML DOCUMENT

- The essential tags that are required to create a HTML document are:
- <HTML>.....</HTML>
- <HEAD>.....</HEAD>
- <BODY>.....</BODY>

# • HTML Tag <HTML>

- The <HTML> tag encloses all other HTML tags and associated text within your document. It is an optional tag. You can create an HTML document that omits these tags, and your browser can still read it and display it. But it is always a good form to include the start and stop tags.The format is:
- <HTML>

Your Title and Document (contains text with HTML tags) goes here

- </HTML>

Most HTML tags have two parts, an opening tag and closing tag. The closing tag is the same as the opening tag, except for the slash

mark e.g. </HTML>. The slash mark is always used in closing tags.

# An HTML document has two distinct parts HEAD and BODY

- <HTML>
- <HEAD>
- .....
- .....
- .....
- </HEAD>
- <BODY>
- .....
- .....
- .....
- </BODY>
- </HTML>

- HEAD Tag <HEAD>

- HEAD tag comes after the HTML start tag. It contains TITLE tag to give the document a title that displays on the browsers title bar at the top. The Format is:

<HEAD>

<TITLE>

Your title goes here

</TITLE>

</HEAD>

# • BODY Tag <BODY>

- The BODY tag contains all the text and graphics of the document with all the HTML tags that are used for control and formatting of the page.The Format is:

<BODY>
Your Document goes here
</BODY>

An HTML document, web page can be created using a text editor, Notepad or WordPad. All the HTML documents should have the extension .htm or html. It require a web browser like Internet Explorer or Netscape Navigator/Communicator to view the document.

# •The most common character formatting tags are

- Boldface <B>: displays text in BOLD

Example: Welcome to the <B> Internet World </B>

Output: Welcome to the Internet World

- Italics <I>: displays text in Italic

Example: Welcome to the <I> Internet World </I>

Output: Welcome to the Internet World

- Subscript <SUB>: displays text in Subscript
- Superscript <SUP>: displays text in Superscript
- Small <SMALL>: displays text in smaller font as compared to normal font
- Big <BIG>: displays text in larger font as compared to normal font
- Underline<U>specifies that the enclosed text be underline

Example:<U> hello</u>

Output: <u>hello</u>

- An HTML document formatText.html shows the use of Character Formatting Tags.

```
<HTML>
<HEAD>
<TITLE>
Use of Character Formatting Text Tags
</TITLE>
</HEAD>
<BODY>
<H1><I> Welcome to the world of Internet</I></H1>
 It is a
<FONT COLOR="BLUE" SIZE="4">
<U>Network of Networks</U>
</FONT>
</BODY>
</HTML>
```

- OUTPUT

*Welcome to the world of Internet*

It is a Network of Networks

# •MARQUEE TAG

- This tag is used text horizontally across the screen.it is mainly used to deliver a specfic message to the visitor or to scroll Ads on a page.
- Example: <marquee> hello world></marquee>

# •Attributes of marquee tag

- Bgcolor :  Sets the background color of the marquee.
- Direction :Sets the direction of the marquee box to either left-to-right, right-to-left, up-to-down and down-to-up.
- Width: This sets how wide the marquee should be.
- Loop: This sets how many times the marquee should 'Loop' its text. Each trip counts as one loop.

# •paragraph Formatting Tag

- Paragraph level formatting applies to formatting of an entire portion of text unlike character level tags where only individual letters or words are formatted.

# •The most common paragraph formatting tags are

- Using paragraph tag: <P>

This tag<P>indicates a paragraph,used to separate two paragraphs with a blank line.

- Example:

<P> Welcome to the world of HTML </P>

<P> First paragraph. Text of First paragraph goes here</P>

- Output:

Welcome to the world of HTML

First paragraph. Text of First paragraph goes her

# Headers

- Six headers ( header elements)
  - h1 through h6

# Headers

```
<html>
      <head>
        <title>Internet and WWW How to Program - Headers</title>
     </head>

     <body>

        <h1>Level 1 Header</h1>
        <h2>Level 2 header</h2>
        <h3>Level 3 header</h3>
        <h4>Level 4 header</h4>
        <h5>Level 5 header</h5>
        <h6>Level 6 header</h6>

     </body>
</html>
```

# Headers

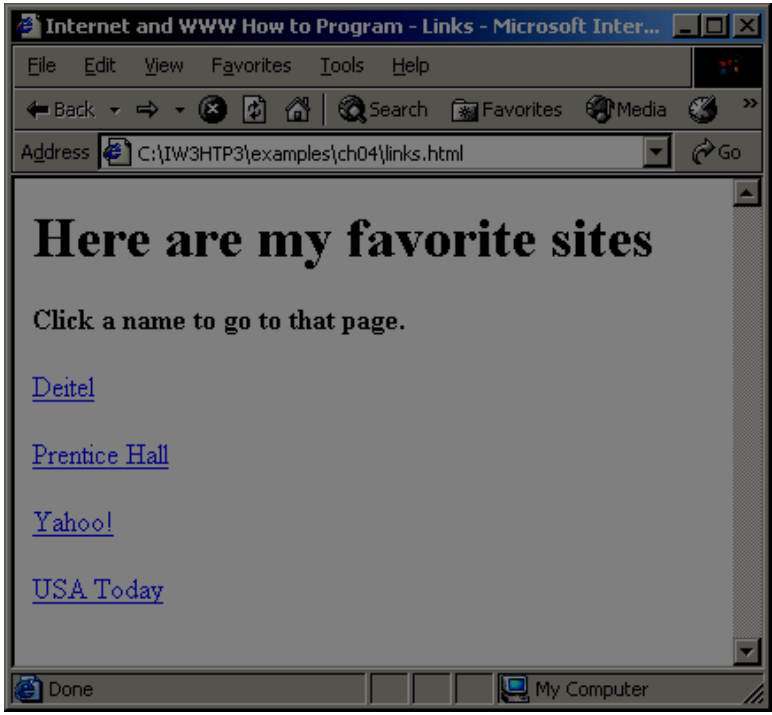

Internet and WWW How to Program - Headers - Mic...
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\IW3HTP3\examples\ch04\header.html
Go
Level 1 Header
Level 2 header
Level 3 header
Level 4 header
Level 5 header
Level 6 header
Done
My Computer

# Linking

- Hyperlink
  - References other sources such as XHTML documents and images
  - Both text and images can act as hyperlinks
  - Created using the a (anchor) element
- Attribute `href`
  - Specifies the location of a linked resource
- Link to e-mail addresses using `mailto:` URL
- `<strong>` tag
  - Bold

# Linking

```
<html>
      <head>
       <title>Internet and WWW How to Program - Links</title>
      </head>

      <body>

        <h1>Here are my favorite sites</h1>

        <p><strong>Click a name to go to that page.</strong></p>

        <!-- Create four text hyperlinks -->
        <p><a href = "http://www.deitel.com">Deitel</a></p>

        <p><a href = "http://www.prenhall.com">Prentice Hall</a></p>

       <p><a href = "http://www.yahoo.com">Yahoo!</a></p>
       <p><a href = "http://www.usatoday.com">USA Today</a></p>

    </body>
</html>
```



# Unordered Lists

- Unordered list element `ul`
  - Creates a list in which each item begins with a bullet symbol (called a disc)
  - `li` (list item)
    - Entry in an unordered list
  - you use an **unordered list** for items that do not need to occur in any special order

```
<ul>
        <li>item1</li>
        <li>item2</li>
        …
</ul>
```

# Unordered Lists

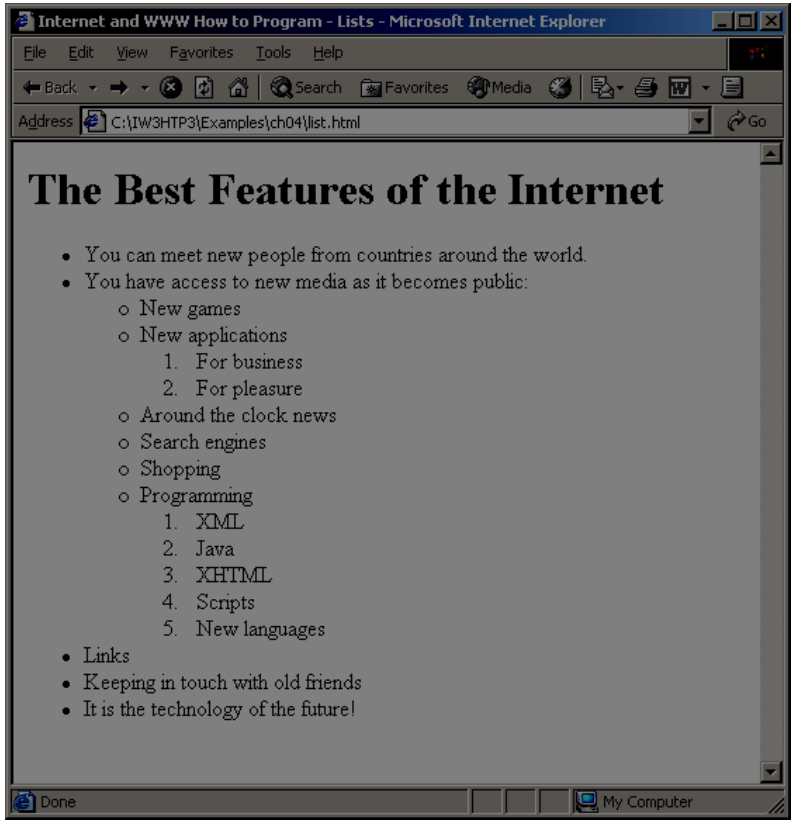
```
<html>
  <head>
     <title>Internet and WWW How to Program - Links</title>
   </head>

   <body>

     <h1>Here are my favorite sites</h1>

    <p><strong>Click on a name to go to that page.</strong></p>
    <!-- create an unordered list -->
    <ul>

   <!-- add four list items -->
       <li><a href = "http://www.deitel.com">Deitel</a></li>
        <li><a href = "http://www.w3.org">W3C</a></li>
         <li><a href = "http://www.yahoo.com">Yahoo!</a></li>

          <li><a href = "http://www.cnn.com">CNN</a></li>
    </ul>
</body>
</html>
```

# Nested and Ordered Lists

- Represent hierarchical relationships
- Ordered lists (`ol`)
  - Creates a list in which each item begins with a number

```
<ol>
        <li>item1
              <ul>
                    <li>item2</li>
                    <li>item3</li>
              </ul>
        </li>
</ol>
```

# Nested and Ordered Lists



# Basic Tables

- Organize data into rows and columns
- `table` element
  - Attribute border
    - Specifies the table's border width in pixels
  - Attribute summary
    - Describes the table's contents
  - Attribute caption
    - Describes the table's content and helps text-based browsers interpret table data
  - Head section (header cell, defined with a `thead` element)
    - Contains header information such as column names
- `tr` element (defines an individual table row)
- `th` element (defines the columns in the head section)
  - Foot section (defined with a `tfoot` element)
  - Table body (defined with a `tbody` element)
  - Data cells (defined with `td` element)

# Create a simple table

**Price of Fruit**

| Fruit | Price |
|---|---|
| Apple | $0.25 |
| Orange | $0.50 |
| Banana | $1.00 |
| Pineapple | $2.00 |
| **Total** | **$3.75** |

# Create a simple table

```
<html>
<head>
      <title>A simple HTML table</title>
</head>
<body>


<!-- the <table> tag opens a table -->
<table border = "1" width = "40%"
  summary = "This table provides information about the price of fruit">
<!-- the <caption> tag summarizes the table's    -->
<!-- contents (this helps the visually impaired) -->
<caption><strong>Price of Fruit</strong></caption>
```

# Create a simple table

```
<!-- the <thead> is the first section of a table -->\
<!-- it formats the table header area          -->
<thead>
<tr>            <!-- <tr> inserts a table row -->
              <th>Fruit</th> <!-- insert a heading cell -->
             <th>Price</th>
              </tr>
</thead>
<!-- the <tfoot> is the last section of a table -->
         <!-- it formats the table footer              -->
<tfoot>
            <tr>
              <th>Total</th>
             <th>$3.75</th>
              </tr>
</tfoot>

<!-- all table content is enclosed  -->
<!-- within the <tbody>           -->
<tbody>
           <tr>
                <td>Apple</td> <!-- insert a data cell -->
                   <td>$0.25</td>
         </tr>
```

# Create a simple table

```
        <tr>
            <td>Orange</td>
            <td>$0.50</td>
         </tr>


         <tr>
             <td>Banana</td>
             <td>$1.00</td>
          </tr>

           <tr>
             <td>Pineapple</td>
             <td>$2.00</td>
           </tr>
        </tbody>

     </table>

  </body>
</html>
```

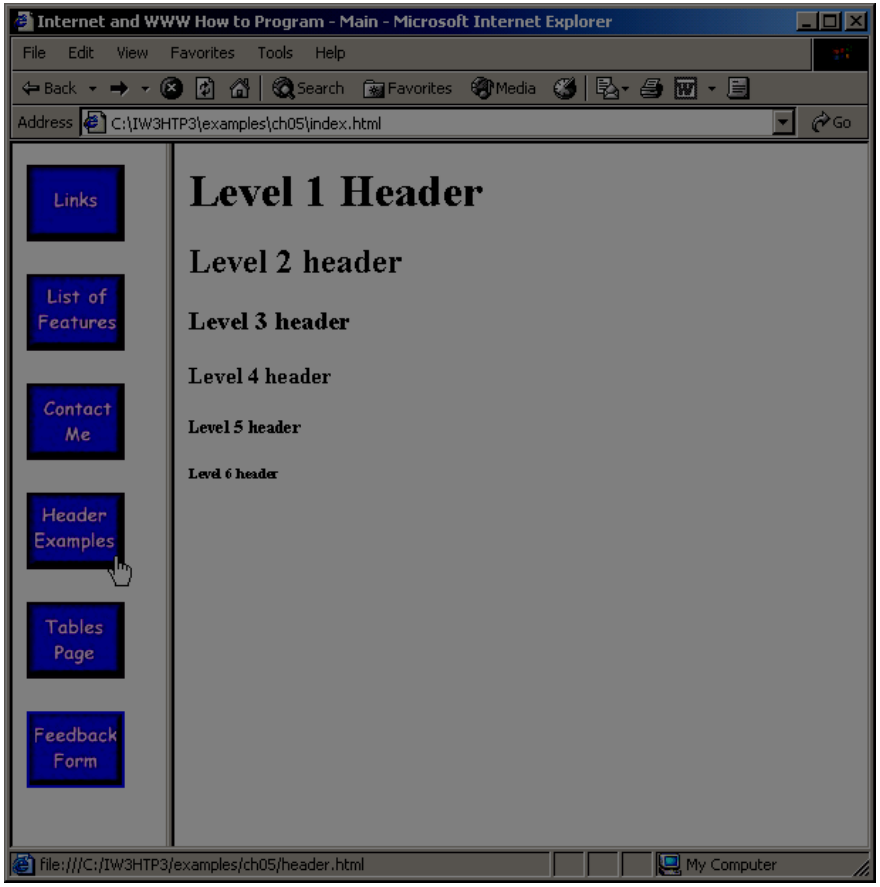
# Basic HTML Forms

- Element form
  - Attribute `method`
    - Specifies how the form's data is sent to Web server
    - `method = "post"`
      - Appends form data to the browser request
    - `method = "get"`
      - Appends form data directly to the end of the URL
  - Attribute `action`
    - Specifies the URL of a script on the Web server
  - `input`
    - Specifies data to provide to the script that processes the form

# frameset Element

```
<html>
   <head>
         <title>Internet and WWW How to Program - Main</title>

      </head>

      <!-- the <frameset> tag sets the frame dimensions     -->
      <frameset cols = "110,*">
         <!-- frame elements specify which pages -->
         <!-- are loaded into a given frame      -->
         <frame name = "leftframe" src = "nav.html" />
         <frame name = "main" src = "main.html" />

      </frameset>
</html>
```


Internet and WWW How to Program - Main - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address C:\IW3HTP3\examples\ch05\index.html
Go
Links
List of Features
Contact Me
Header Examples
Tables Page
Feedback Form
Welcome to Our Web Site!
We have designed this site to teach about the wonders of XHTML. XHTML is better equipped than HTML to represent complex data on the Internet. XHTML takes advantage of XML's strict syntax to ensure well-formedness. Soon you will know about many of the great new features of XHTML.
Have Fun With the Site!
Done
My Computer


Internet and WWW How to Program - Main - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address C:\IW3HTP3\examples\ch05\index.html
Go
Links
List of Features
Contact Me
Header Examples
Tables Page
Feedback Form
Level 1 Header
Level 2 header
Level 3 header
Level 4 header
Level 5 header
Level 6 header
file:///C:/IW3HTP3/examples/ch05/header.html
My Computer

# Nested `frameset`s

- `frameset`s within `frameset`s

# Nested `frameset`s

```
<html>
    <head>
      <title>Internet and WWW How to Program - Main</title>

    </head>

  <frameset cols = "110,*">
     <frame name = "leftframe" src = "nav.html" />
     <!-- nested framesets are used to change the -->
     <!-- formatting and layout of the frameset  -->
     <frameset rows = "175,*">
        <frame name = "picture" src = "picture.html" />
        <frame name = "main" src = "main.html" />
     </frameset>

    </frameset>
</html>
```


Internet and WWW How to Program - Main - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address C:\IW3HTP3\examples\ch05\index2.html
Go
Links
List of Features
Contact Me
Header Examples
Tables Page
Feedback Form
Home Page
Links
DEITEL
Feedback
Contact Info
Welcome to Our Web Site!
We have designed this site to teach about the wonders of XHTML. XHTML is better equipped than HTML to represent complex data on the Internet. XHTML takes advantage of XML's strict syntax to ensure well-formedness. Soon you will know about many of the great new features of XHTML.
Have Fun With the Site!
My Computer

# •ADVANTAGES OF HTML

- Easy to use
- Loose syntax (although, being too flexible will not comply with standards).
- Supported on almost every browser, if not all browsers.
- Widely used; established on almost every website, if not all websites.
- Very similar to XML syntax, which is increasingly used for data storage.
- Free - You need not buy any software.
- Easy to learn & code even for novice programmers.

# •DISADVANTAGES OF HTML

- It cannot produce dynamic output alone, since it is a static language
- Sometimes, the structuring of HTML documents is hard to grasp
- You have to keep up with deprecated tags, and make sure not to use them
- Deprecated tags appear because another language that works with HTML has replaced the original work of the tag; thus the other language needs to be learned (most of the time, it is CSS)
- Security features offered by HTML are limited