

HTML Fundamentals

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Introduction to HTML

- HTML is a MARKUP language
- Using HTML tags and elements, we can:
 - Control the appearance of the page and the content
 - Publish online documents and retrieve online information using the links inserted in the HTML document
 - Create on-line forms. These forms can be used to collect information about the user, conduct transactions, and so on

HTML syntax

```
<HTML>
  <HEAD>
    <TITLE>Welcome to HTML</TITLE>
  <HEAD>
  <BODY>
    <H3>My first HTML document</H3>
  </BODY>
</HTML>
```

HTML Tags

- HTML tag is used to mark the beginning and end of an HTML document
`<HTML> . . . </HTML>`
- The HTML tag is comprised of:
`<ELEMENT ATTRIBUTE = value>`
 - Element - identifies the tag
 - Attribute - describes the tag
 - Value - the content that is assigned to the attribute

HTML Elements

- HTML Elements
- An HTML element is everything from the start tag to the end tag:

Start tag *	Element content	End tag *
<p>	This is a paragraph	</p>
	This is a link	

HTML Attributes

- HTML elements can have **attributes**
- Attributes provide **additional information** about an element
- Attributes are always specified in **the start tag**
- Attributes come in name/value pairs like: **name="value"**
- Below is a list of some attributes that are standard for most HTML elements:

Attribute	Value	Description
class	<i>classname</i>	Specifies a classname for an element
id	<i>id</i>	Specifies a unique id for an element
style	<i>style_definition</i>	Specifies an inline style for an element
title	<i>tooltip_text</i>	Specifies extra information about an element (displayed as a tool tip)

HTML Attributes sample

```
<!DOCTYPE html>
<html>
  <head>
    <style type="text/css">
      h1.intro {color:blue;}
      p.important {color:red;}
    </style>
  </head>

  <body>
    <h1 class="intro">Header 1</h1>
    <p>A paragraph.</p>
    <p class="important">Note that this is an important paragraph.
      :)</p>
  </body>
</html>
```

HTML Attributes sample

```
<!DOCTYPE html>
<html>
  <head>
    <script type="text/javascript">
      function displayResult()
      {
        document.getElementById("myHeader").innerHTML="Have a
          nice day!";
      }
    </script>
  </head>
  <body>
    <h1 id="myHeader">Hello World!</h1>
    <button onclick="displayResult()">Change text</button>
  </body>
</html>
```

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Hyperlinks

□ HTML Link Syntax

```
<a href="url">Link text</a>
```

- The target Attribute

```
<a href="http://www.google.com/"  
target="_blank">google page! </a>
```

⇒ It will open the linked document in a new browser window or a new tab.

Hyperlinks - Attribute

- **The name Attribute**

➤ A named anchor inside an HTML document

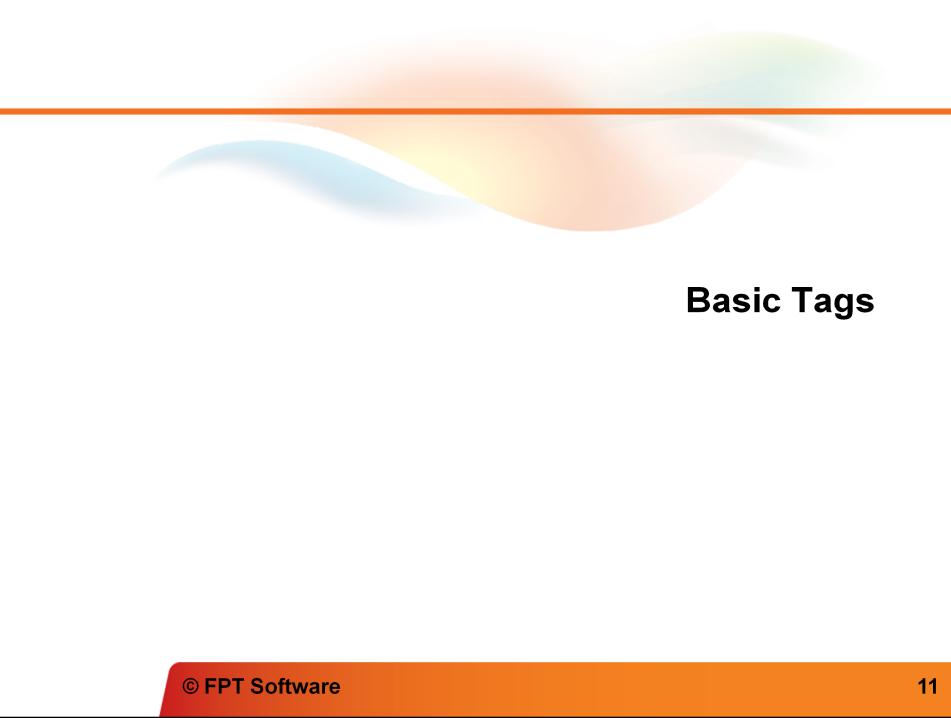
```
<a name="tips">Useful Tips Section</a>
```

➤ Create a link to the "Useful Tips Section" inside the same document:

```
<a href="#tips">Visit the Useful Tips Section</a>
```

➤ Or, create a link to the "Useful Tips Section" from another page:

```
<a href="http://www.docbao.com/html_links.htm#tips">  
go to doc bao </a>
```



Basic Tags

Basic HTML elements

- Header (H1 to H6) Tag
- Paragraph Level Tags
- Block Tags
- Character Format Tags
- List
- Horizontal Rule <HR> Tag
- Font Tag
- IMG Tag

Structuring Text

- Using Quotes
 - <BLOCKQUOTE>
- Preformatted text
 - <PRE>
- Grouping elements
 - <DIV>...</DIV>
 - ...

Formatting

- **Physical formatting tags**

- As mentioned above, a *physical character tag* controls how the characters are formatted. For instance, you might display some characters as bold or italic. Listing 1 displays some common physical character tags.

- **Logical formatting tags**

- A *logical character tag* describes how the text is being used, not necessarily how it is formatted. Listing 3 displays common examples logical character tags.

Physical Formatting Tags

TML code	Output
This is bold	This is bold
This is <big>big font</big>	This is big font
This is <i>italic</i>	This is <i>italic</i>
Was <s>\$50</s>; now \$40	Was \$50 ; now \$40
This is <small>small</small>	This is <small>small</small>
H₂O	H ₂ O
May 5th 2005	May 5 th 2005
<tt>fixed-width font</tt>	fixed-width font
This is <u>underlined</u>	This is <u>underlined</u>

Physical Formatting Tags

HTML code	Output
This is used for a short <cite>quote</cite>.	This is used for a <i>short quote</i> .
<code>y = m * x + b</code>	y = m * x + b
Deleted text	Deleted text
<dfn>definition</dfn> text	<i>definition</i> text
This is emphasized .	This is <i>emphasized</i> .
<ins>inserted</ins> text	<u>inserted</u> text
<kbd>code</kbd> sample	code sample
<samp>code</samp> sample	code sample
This is strong.	This is strong .
<var>program</var> variable	<i>program</i> variable

Horizontal Rule

- <HR> Attributes
 - align
 - Width
 - Size
 - Noshade

Using Fonts

- ...
 - Color
 - Size
 - Face

Adding Color

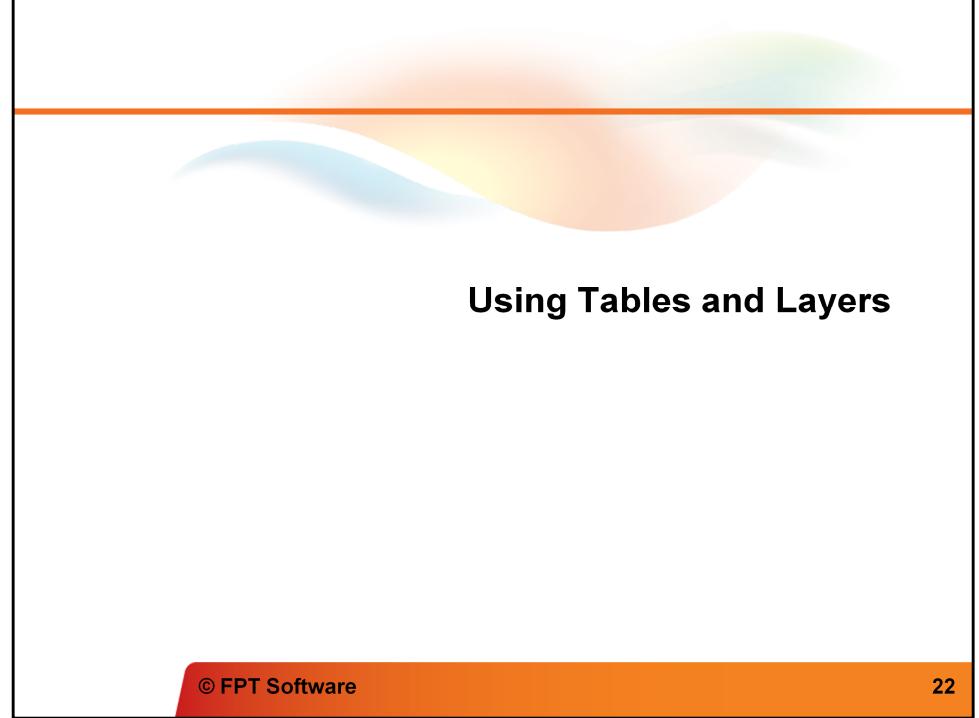
```
<HTML>
  <HEAD>
    <TITLE>Learning HTML</TITLE>
  </HEAD>
  <BODY BGCOLOR=lavender>
    <H2><FONT COLOR = LIMEGREEN>Welcome to
HTML</FONT></H2>
    <P><FONT COLOR = RED>This is good
fun</FONT></P>
  </BODY>
</HTML>
```

Images in HTML Documents

- GIF (Graphics Interchange Format) images (.GIF)
 - Interlaced GIF format
 - Transparent GIF images
- JPEG (Joint Photographic Expert Group) images (.JPEG)
- PNG (Portable Network Graphics)

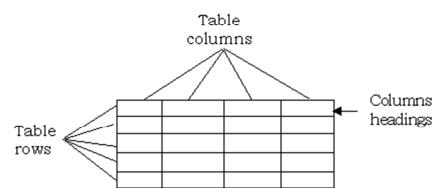
Inserting Images

-
-
-
- <BODY BACKGROUND=bgimage.gif>
- <BODY BACKGROUND=bgimage.gif
BGPROPERTIES=FIXED>



Using Tables and Layers

Layout of a Table



Elements Associated with Table

- <TABLE> ... </TABLE>
- <TR> ... </TR>
- <TD> ... </TD>
- <CAPTION> ... </CAPTION>
- <TH> ... </TH>

Creating Tables

```
<table border="1">
  <tr>
    <th>Header 1</th>
    <th>Header 2</th>
  </tr>
  <tr>
    <td>row 1, cell 1</td>
    <td>row 1, cell 2</td>
  </tr>
  <tr>
    <td>row 2, cell 1</td>
    <td>row 2, cell 2</td>
  </tr>
</table>
```

Add Cell Space

- The CELLSPACING attribute defines the space between cells in pixels. The CELLPADDING attribute defines spaces within the table cell.

```
<TABLE BORDER = 2 CELLSPACING = 2  
CELLPADDING = 6>
```

Merging Cells

- The COLSPAN and ROWSPAN attributes are used to create cells that span more than one column or row
- The COLSPAN attribute is used with the <TH> tag, while the ROWSPAN attribute is used with the <TD> tag

Formatting Data in the Cell

- Align = left
- Align = center
- Align = right
- Align = justify
- Valign = top
- Valign = middle
- Valign = bottom
- Valign = baseline

```
<TD ALIGN = right VALIGN = bottom>  
Data Cell 1</TD>
```

Adding Java Applet

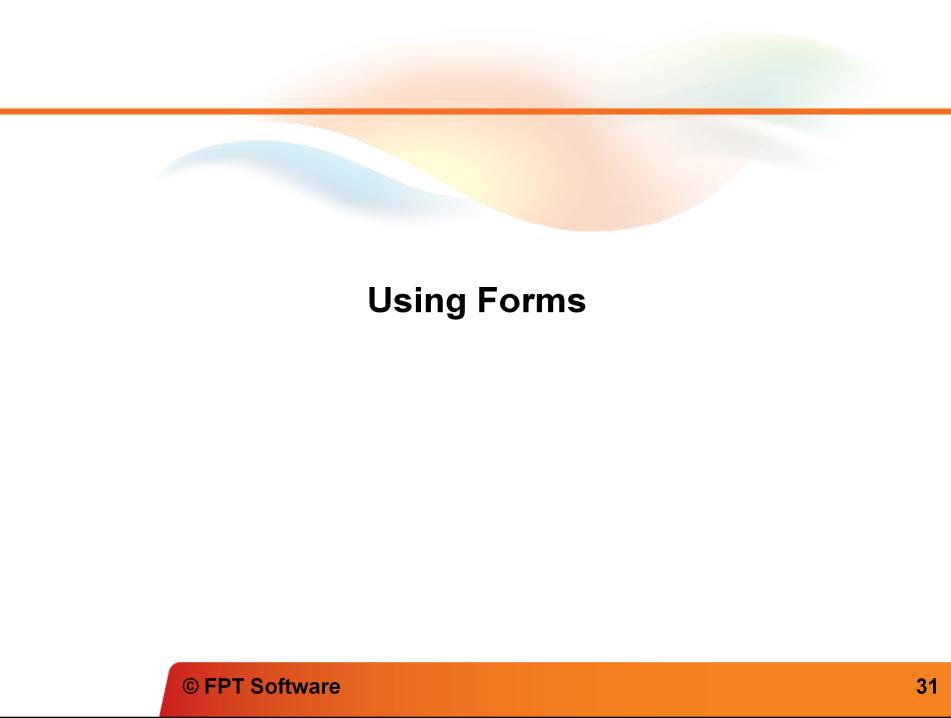
- To display the applet, we need to create an HTML page that loads the applet file into the browser

```
<applet code = FirstApplet width=200 height=200></applet>
```

Passing Parameters to Applet

- It is possible to pass parameters to an applet using the <PARAM> tag in the HTML file

```
<PARAM name = "parameter name" value = "parameter  
value">
```



Using Forms

Introduction to Forms

- **Uses of Forms**

- Collecting names, addresses, telephone numbers, e-mail addresses, and other information to register users for a service or event
- Gathering information for the purchase of an item. For example, if we want to purchase a book over the Internet, we would be required to fill in our name, mailing address, mode of payment, and so on

A Sample Form

Sample Stock Survey

Describe your investment experience

beginner intermediate expert

Types of Investments you make

Individual Stocks Options Mutual Funds

How do you buy your stocks?

What is your hot stock pick for?

1) On-Line
2) Touch Tone Trading
3) Broker Assisted
4) Other

Any Investment Advice for others?

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Using Forms

- The FORM element
`<FORM> ... </FORM>`
- Form Attribute
 - ACCEPT
 - ACTION
 - METHOD

HTML Input Element Attribute

- The INPUT Element
 - TYPE
 - NAME
 - VALUE
 - SIZE
 - MAXLENGTH
 - CHECKED
 - SRC
 - TABINDEX

Input –Type Attribute

- TEXT [Default]
- CHECKBOX
- RADIO
- SUBMIT
- RESET
- IMAGE
- BUTTON

Other Input Elements-1

- The **TextArea** Element
 - cols
 - rows
 - Size
 - type
 - Value
- The **BUTTON** Element
 - name
 - value
 - type

Other INPUT Elements-2

- The SELECT Element
 - Name
 - size
 - Multiple
- The LABEL Element

Creating Forms

- <form name="input" action="html_form_action.asp" method="get">
 Username: <input type="text" name="user" />
 <input type="submit" value="Submit" />
 </form>



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