

# HTML



CONTINUATION...

# Basic HTML Forms



- *Forms*
  - Collect information from people viewing your site
- **FORM** element
  - **METHOD** attribute indicates the way the *Web server* will organize and send you form output
    - ✦ *Web server*: machine that processes browser requests
    - ✦ **METHOD** = "**post**" in a form that causes changes to server data
    - ✦ **METHOD** = "**get**" in a form that does not cause any changes in server data
  - Form data sent to server as an *environment variable*
    - ✦ Processed by scripts
  - **ACTION** attribute
    - ✦ Path to a script (a CGI script written in Perl, C or other languages)

# Basic HTML Forms



- **INPUT** element

- Attributes:

- ✦ **TYPE** (required)

- Hidden inputs always have **TYPE** = "hidden"
- Defines the usage of the **INPUT** element
  - **TYPE** = "text" inserts a one-line text box

- ✦ **NAME** provides a unique identification for **INPUT** element

- ✦ **VALUE** indicates the value that the **INPUT** element sends to the server upon submission

- ✦ **SIZE**

- For **TYPE** = "text", specifies the width of the text input, measured in characters

- ✦ **MAXLENGTH**

- For **TYPE** = "text", specifies the maximum number of characters that the text input will accept

# Basic HTML Forms



- **INPUT** element (cont.)
  - Include textual identifier adjacent to **INPUT** element
  - 2 types of **INPUT** elements that should be inserted into every form:
    - ✦ **TYPE** = `"submit"` inserts a button that submits data to the server
      - **VALUE** attribute changes the text displayed on the button (default is `"Submit"`)
    - ✦ **TYPE** = `"reset"` inserts a button that clears all entries the user entered into the form
      - **VALUE** attribute changes the text displayed on the button (default is `"Reset"`)
- **TYPE** can be `"hidden"`, `"text"`, `"submit"`, `"reset"`, `"password"`, `"checkbox"`, `"radio"`

# HTML for Forms

```
1<HTML>
2
3<!-- Fig. 10.6: form.html      -->
4<!-- Introducing Form Design -->
5
6<HEAD>
7<TITLE>Internet and WWW How to Program - Forms</TITLE>
8</HEAD>
9
10<BODY>
11<H2>Feedback Form</H2>
12
13<P>Please fill out this form to help us improve our site.</P>
14
15<!-- This tag starts the form, gives the method of sending -->
16<!-- information and the location of form scripts.          -->
17<!-- Hidden inputs give the server non-visual information  -->
18<FORM METHOD = "POST" ACTION = "/cgi-bin/formmail">
19
20<INPUT TYPE = "hidden" NAME = "recipient"
21  VALUE = "deitel@deitel.com">
22<INPUT TYPE = "hidden" NAME = "subject"
23  VALUE = "Feedback Form">
24<INPUT TYPE = "hidden" NAME = "redirect"
25  VALUE = "main.html">
26
27<!-- <INPUT type = "text"> inserts a text box -->
```

# Forms with Feedback data

```
28<P><STRONG>Name :</STRONG>
```

```
29<INPUT NAME = "name" TYPE = "text" SIZE = "25"></P>
```

```
30
```

```
31<!-- Input types "submit" and "reset" insert buttons -->
```

```
32<!-- for submitting or clearing the form's contents -->
```

```
33<INPUT TYPE = "submit" VALUE = "Submit Your Entries">
```

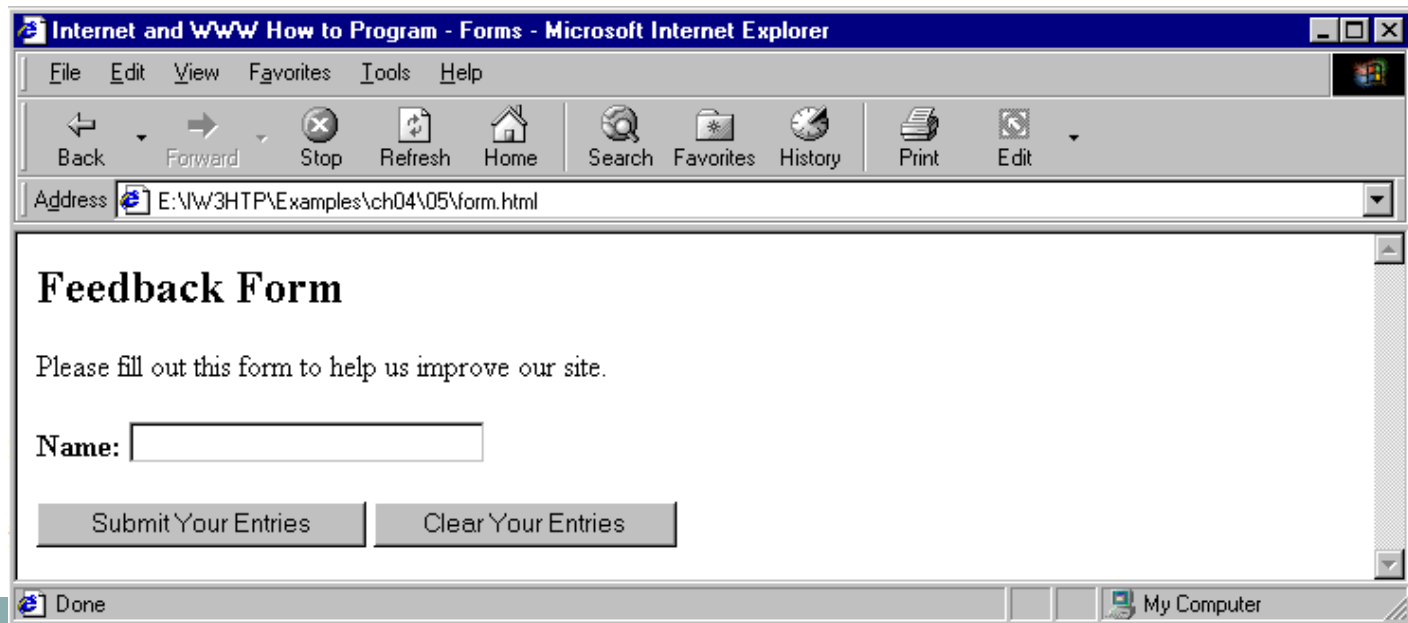
```
34<INPUT TYPE = "reset" VALUE = "Clear Your Entries">
```

```
35</FORM>
```

```
36
```

```
37</BODY>
```

```
38</HTML>
```



# More Complex HTML Forms



- **TEXTAREA** element

- Inserts a scrollable text box into **FORM**
- **ROWS** and **COLS** attributes specify the number of character rows and columns

```
<TEXTAREA NAME = "comments" ROWS = "4" COLS = "36"></TEXTAREA>
```

- **INPUT** element

- **TYPE** = "password"
- Inserts a text box where data displayed as asterisks
  - ✦ Actual data submitted to server

```
<INPUT NAME = "email" TYPE = "password" SIZE = "25">
```

# More Complex HTML Forms



- **INPUT** element (cont.)

- **TYPE** = "checkbox" creates a checkbox

- ✦ Used individually or in groups
- ✦ Each checkbox in a group should have same **NAME**
- ✦ Make sure that the checkboxes within a group have different **VALUE** attribute values
  - Otherwise, browser will cannot distinguish between them
- ✦ **CHECKED** attribute checks boxes initially

```
<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Design">
```

- **TYPE** = "radio"

- ✦ Radio buttons similar in function and usage to checkboxes
- ✦ Only one radio button in a group can be selected
- ✦ **CHECKED** attribute indicates which radio button is selected initially

```
<INPUT NAME = "how get to site" TYPE = "radio" VALUE = "link" CHECKED>
```



# More Complex Forms



- **SELECT** element
  - Places a selectable list of items inside **FORM**
    - ✦ Include **NAME** attribute
  - Add an item to list
    - ✦ Insert an **OPTION** element in the **<SELECT>...</SELECT>** tags
    - ✦ Closing **OPTION** tag optional
  - **SELECTED** attribute applies a default selection to list
  - Change the number of list options visible
    - ✦ Including the **SIZE = "x"** attribute inside the **<SELECT>** tag
    - ✦ *x* number of options visible

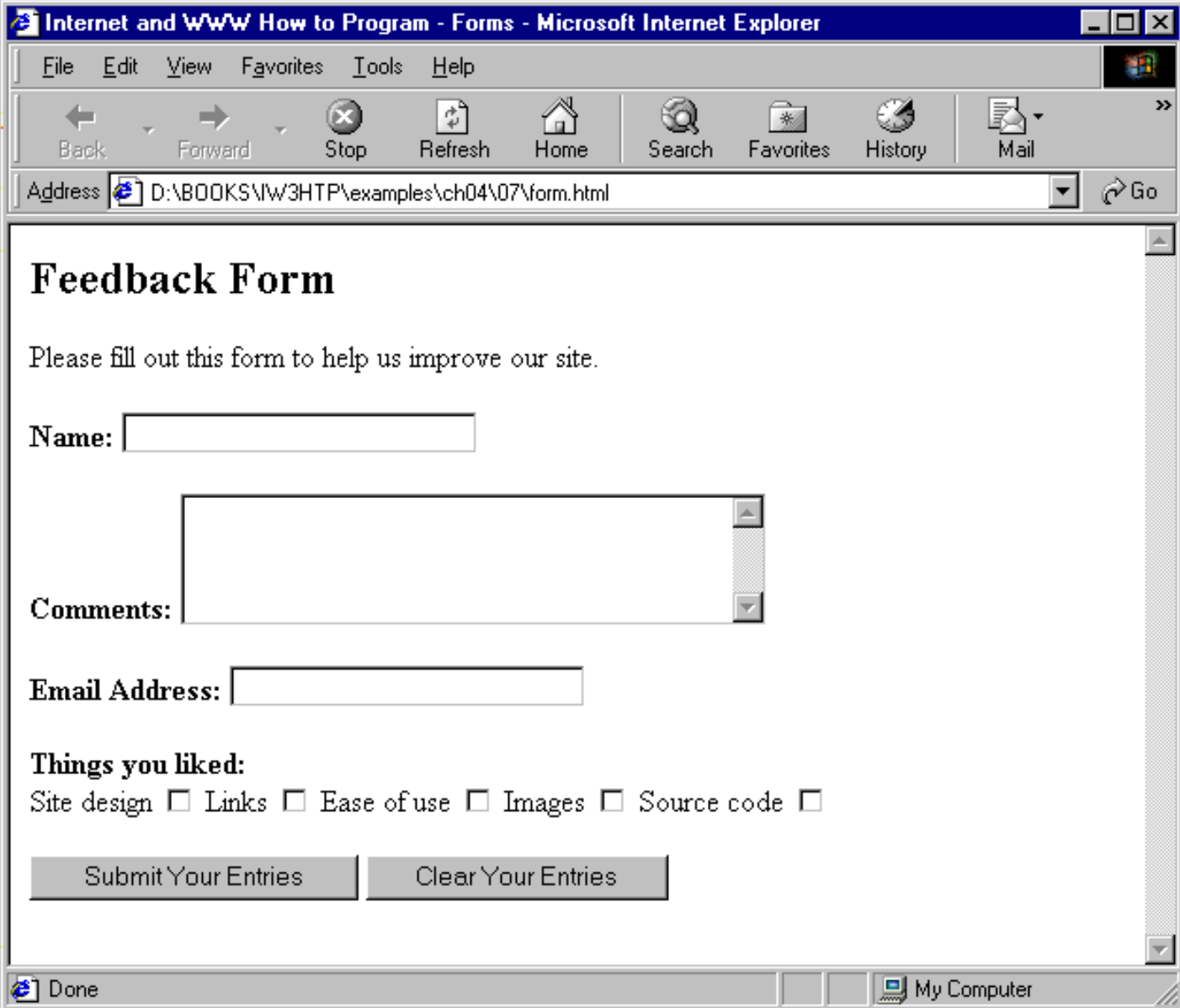
# HTML for forms

```
1<HTML>
2
3<!-- Fig. 10.7: form.html -->
4<!-- Form Design Example 2 -->
5
6<HEAD>
7<TITLE>Internet and WWW How to Program - Forms</TITLE>
8</HEAD>
9
10<BODY>
11<H2>Feedback Form</H2>
12
13<P>Please fill out this form to help us improve our site.</P>
14
15<FORM METHOD = "POST" ACTION = "/cgi-bin/formmail">
16
17<INPUT TYPE = "hidden" NAME = "recipient"
18   VALUE = "deitel@deitel.com">
19<INPUT TYPE = "hidden" NAME = "subject"
20   VALUE = "Feedback Form">
21<INPUT TYPE = "hidden" NAME = "redirect"
22   VALUE = "main.html">
23
24<P><STRONG>Name: </STRONG>
25<INPUT NAME = "name" TYPE = "text" SIZE = "25"></P>
26
27<!-- <TEXTAREA> creates a textbox of the size given -->
28<P><STRONG>Comments:</STRONG>
29<TEXTAREA NAME = "comments" ROWS = "4" COLS = "36"></TEXTAREA>
30</P>
```

# HTML for passwords & checkboxes

```
31
32<!-- <INPUT TYPE = "password"> inserts a textbox whose    -->
33<!-- readout will be in *** instead of regular characters -->
34<P><STRONG>Email Address:</STRONG>
35<INPUT NAME = "email" TYPE = "password" SIZE = "25"></P>
36
37<!-- <INPUT TYPE = "checkbox"> creates a checkbox -->
38<P><STRONG>Things you liked:</STRONG><BR>
39
40Site design
41<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Design">
42Links
43<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Links">
44Ease of use
45<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Ease">
46Images
47<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Images">
48Source code
49<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Code">
50</P>
51
52<INPUT TYPE = "submit" VALUE = "Submit Your Entries">
53<INPUT TYPE = "reset" VALUE = "Clear Your Entries">
54</FORM>
55
56</BODY>
57</HTML>
```

# Form including textareas, password boxes and checkboxes



The screenshot shows a Microsoft Internet Explorer window titled "Internet and WWW How to Program - Forms - Microsoft Internet Explorer". The address bar displays "D:\BOOKS\W3HTP\examples\ch04\07\form.html". The form is titled "Feedback Form" and contains the following elements:

Please fill out this form to help us improve our site.

**Name:**

**Comments:**

**Email Address:**

**Things you liked:**

Site design ☐ Links ☐ Ease of use ☐ Images ☐ Source code ☐

The status bar at the bottom shows "Done" and "My Computer".

```
1<HTML>
2
3<!-- Fig. 10.8: form.html -->
4<!-- Form Design Example 3 -->
5
6<HEAD>
7<TITLE>Internet and WWW How to Program - Forms</TITLE>
8</HEAD>
9
10<BODY>
11<H2>Feedback Form</H2>
12
13<P>Please fill out this form to help us improve our site.</P>
14
15<FORM METHOD = "POST" ACTION = "/cgi-bin/formmail">
16
17<INPUT TYPE = "hidden" NAME = "recipient"
18   VALUE = "deitel@deitel.com">
19<INPUT TYPE = "hidden" NAME = "subject"
20   VALUE = "Feedback Form">
21<INPUT TYPE = "hidden" NAME = "redirect"
22   VALUE = "main.html">
23
24<P><STRONG>Name: </STRONG>
25<INPUT NAME = "name" TYPE = "text" SIZE = "25"></P>
26
27<P><STRONG>Comments:</STRONG>
28<TEXTAREA NAME = "comments" ROWS = "4" COLS = "36"></TEXTAREA>
29</P>
30
```

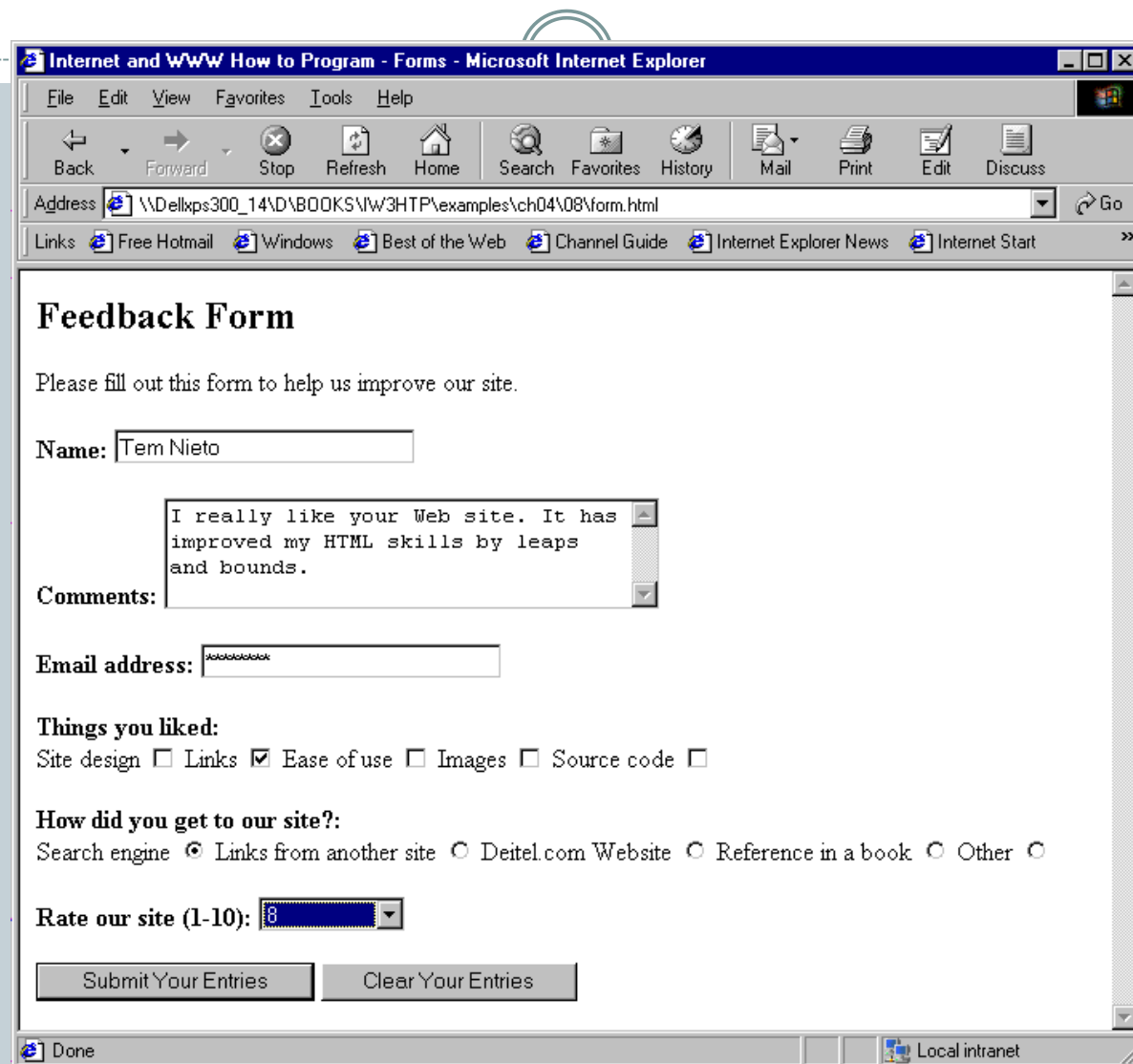
# Radio Buttons

```
31<P><STRONG>Email Address:</STRONG>
32<INPUT NAME = "email" TYPE = "password" SIZE = "25"></P>
33
34<P><STRONG>Things you liked:</STRONG><BR>
35
36Site design
37<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Design">
38Links
39<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Links">
40Ease of use
41<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Ease">
42Images
43<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Images">
44Source code
45<INPUT NAME = "things" TYPE = "checkbox" VALUE = "Code">
46</P>
47
48<!-- <INPUT TYPE="radio"> creates a radio button. The -->
49<!-- difference between radio buttons and checkboxes is -->
50<!-- that only one radio button in a group can be selected -->
51<P><STRONG>How did you get to our site?:</STRONG><BR>
52
53Search engine
54<INPUT NAME = "how get to site" TYPE = "radio"
55  VALUE = "search engine" CHECKED>
56Links from another site
57<INPUT NAME = "how get to site" TYPE = "radio"
58  VALUE = "link">
```

# Pull Down List

```
59Deitel.com Web site
60<INPUT NAME = "how get to site" TYPE = "radio"
61  VALUE = "deitel.com">
62Reference in a book
63<INPUT NAME = "how get to site" TYPE = "radio"
64  VALUE = "book">
65Other
66<INPUT NAME = "how get to site" TYPE = "radio"
67  VALUE = "other">
68</P>
69
70<!-- The <select> tag presents a drop down menu with -->
71<!-- choices indicated by the <option> tags -->
72<P><STRONG>Rate our site (1-10):</STRONG>
73<SELECT NAME = "rating">
74<OPTION SELECTED>Amazing:-)
75<OPTION>10
76<OPTION>9
77<OPTION>8
78<OPTION>7
79<OPTION>6
80<OPTION>5
81<OPTION>4
82<OPTION>3
83<OPTION>2
84<OPTION>1
85<OPTION>The Pits:-)
86</SELECT></P>
87
88<INPUT TYPE = "submit" VALUE = "Submit Your Entries">
89<INPUT TYPE = "reset" VALUE = "Clear Your Entries">
90</FORM>
92</BODY>
93</HTML>
```

# HTML form including radio buttons and pulldown lists



The screenshot shows a Microsoft Internet Explorer window titled "Internet and WWW How to Program - Forms - Microsoft Internet Explorer". The address bar displays the local path: "\\Dellkps300\_14\D\BOOKS\W3HTP\examples\ch04\08\form.html". The form is titled "Feedback Form" and contains the following elements:

Please fill out this form to help us improve our site.

Name:

Comments:

Email address:

Things you liked:

Site design ☐ Links ☒ Ease of use ☐ Images ☐ Source code ☐

How did you get to our site?:

Search engine ☒ Links from another site ☐ Deitel.com Website ☐ Reference in a book ☐ Other ☐

Rate our site (1-10):

Submit Your Entries Clear Your Entries

Done Local intranet



# <META> Tags



- Search engines
  - Catalog sites by following links from page to page
  - Save identification and classification info
- `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">`
  - Tells browser that HTML conforms to a **Transitional** subset of HTML version 4.0
- **META** tag
  - Main HTML element that interacts with search engines

# <META> Tags



- **META tags**

- Contain two attributes that should always be used:
- **NAME** identifies type of **META** tag
- **CONTENT** provides info the search engine will catalog about your site
  - ✦ **CONTENT** of a **META** tag with **NAME** = "**keywords**"
    - Provides search engines with a list of words that describe key aspects of your site
  - ✦ **CONTENT** of a **META** tag with **NAME** = "**description**"
    - Should be 3 to 4 lines
    - Used by search engines to catalog and display your site

- **META elements**

- Not visible to users of the site
- Should be placed inside header section

```
1<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
2<HTML>
3
4<!-- Fig. 10.11: main.html      -->
5<!-- <META> and <!DOCTYPE> tags -->
6
7<HEAD>
8<!-- <META> tags give search engines information they need -->
9<!-- to catalog your site      -->
10<META NAME = "keywords" CONTENT = "Webpage, design, HTML,
11  tutorial, personal, help, index, form, contact, feedback,
12  list, links, frame, deitel">
13
14<META NAME = "description" CONTENT = "This Web site will help
15  you learn the basics of HTML and Webpage design through the
16  use of interactive examples and instruction.">
17
18<TITLE>Internet and WWW How to Program - Welcome</TITLE>
19</HEAD>
20
21<BODY>
22
23<H1 ALIGN = "center"><U>Welcome to Our Web Site!</U></H1>
24
25<P><FONT COLOR = "red" SIZE = "+1" FACE = "Arial">We have
26designed this site to teach about the wonders of
27<EM>HTML</EM>.</FONT>
28
29<FONT COLOR = "purple" SIZE = "+2" FACE = "Verdana">We have been
30using <EM>HTML</EM> since <U>version<STRONG> 2.0</STRONG></U>,
```

# Meta Tags



```
31and we enjoy the features that have been added recently.</FONT>
32
33<FONT COLOR = "blue" SIZE = "+1" FACE = "Helvetica">It
34seems only a short time ago that we read our first <EM>HTML</EM>
35book.</FONT>
36
37<FONT COLOR = "green" SIZE = "+2" FACE = "Times">Soon you will
38know about many of the great new feature of HTML 4.0.</FONT></P>
39
40<H2 ALIGN = "center">Have Fun With the Site!</H2></P>
41
42</BODY>
43</HTML>
```

# <FRAMESET> Tag



- *Frames*
  - Display more than one HTML file at a time
  - If used properly, frames make your site more readable and usable
- **<!DOCTYPE>** tag
  - Uses **Frameset** instead of **Transitional**
  - Tell the browser that you are using frames
- **<FRAMESET>** tags
  - Tell the browser the page contains frames
  - Details for frames contained within **<FRAMESET>...</FRAMESET>** tags
  - **COLS** or **ROWS** attribute gives the width or height of each frame
    - ✦ In pixels or a percentage

# <FRAMESET> Tag



- **FRAME** elements

- Specify what files will make up frameset

- **FRAME** attributes:

- ✦ **NAME** - identifies specific frame, enabling hyperlinks to load in their intended frame

- **TARGET** attribute of **A** element

- Ex. `<A HREF = "links.html" TARGET = "main">`

- **TARGET** = `"_blank"` loads page in a new blank browser window

- **TARGET** = `"_self"` loads page in the same window as anchor element

- **TARGET** = `"_parent"` loads page in the parent **FRAMESET**

- **TARGET** = `_top` loads page in the full browser window

- **SRC**

- ✦ Gives the URL of the page that will be displayed in the specified frame

# <FRAMESET> Tag



- Not all browsers support frames
  - Use the **NOFRAMES** element inside the **FRAMESET**
  - Direct users to a non-framed version
  - Provide links for downloading a frames-enabled browser
- Use of frames
  - Do not use frames if you can accomplish same with tables or other, simpler HTML formatting

# HTML for frames

```
1<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
2<HTML>
3
4<!-- Fig. 10.12: index.html -->
5<!-- HTML Frames I      -->
6
7<HEAD>
8<META NAME = "keywords" CONTENT = "Webpage, design, HTML,
9  tutorial, personal, help, index, form, contact, feedback,
10  list, links, frame, deitel">
11
12<META NAME = "description" CONTENT = "This Web site will help
13  you learn the basics of HTML and Webpage design through the
14  use of interactive examples and instruction.">
15
16<TITLE>Internet and WWW How to Program - Main</TITLE>
17</HEAD>
18
19<!-- The <FRAMESET> tag gives the dimensions of your frame -->
20<FRAMESET COLS = "110,*">
21
22  <!-- The individual FRAME elements specify which pages -->
23  <!-- appear in the given frames      -->
24  <FRAME NAME = "nav" SRC = "nav.html">
25  <FRAME NAME = "main" SRC = "main.html">
26
27  <NOFRAMES>
28  <P>This page uses frames, but your browser does not support
29  them.</P>
30  <P>Get Internet Explorer 5 at the
```



# HTML for frames



```
31      <A HREF = "http://www.microsoft.com/">
32      Microsoft Web Site</A></P>
33      </NOFRAMES>
34
35 </FRAMESET>
36 </HTML>
```

# Frameset vs. Transitional



- Frameset.dtd:

```
<html>
```

```
  <head>
```

```
    ...
```

```
  </head>
```

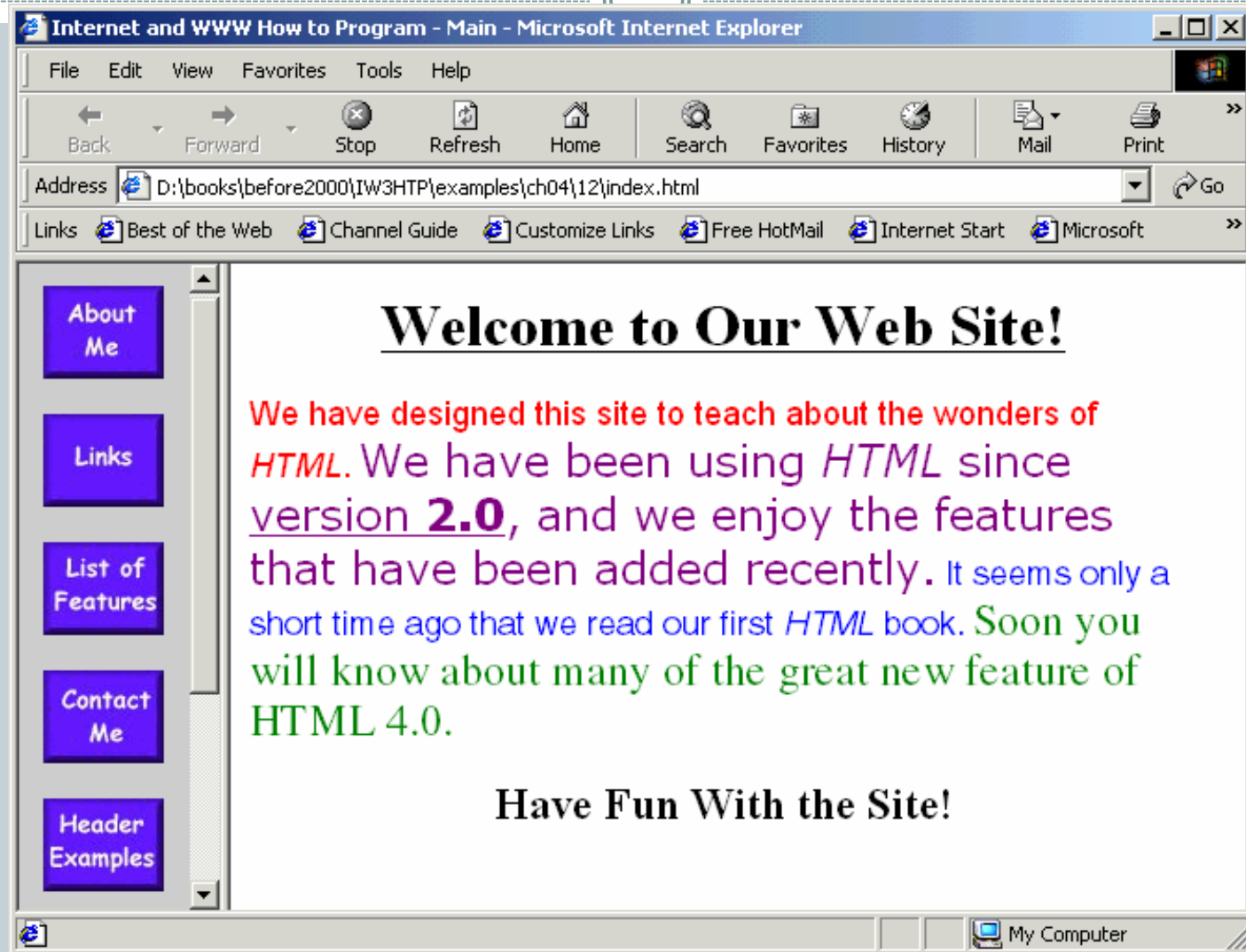
```
  <frameset>
```

```
    ...
```

```
  </frameset>
```

```
</html>
```

# Web Site with two frames



# Nested <FRAMESET> Tags



- **FRAME** element
  - **SCROLLING** attribute
    - ✦ Set to “no” to prevent scroll bars
  - **NORESIZE** attribute prevents user from resizing the frame
- Nesting frames
  - Include the correct number of **FRAME** elements inside **FRAMESET**
  - Using nested **FRAMESET** elements
    - ✦ Indent every level of **FRAME** tag
    - ✦ Makes page clearer and easier to debug

# Nested Frames

```
1<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
2<HTML>
3
4<!-- Fig. 10.13: index.html -->
5<!-- HTML Frames II -->
6
7<HEAD>
8
9<META NAME = "keywords" CONTENT = "Webpage, design, HTML,
10  tutorial, personal, help, index, form, contact, feedback,
11  list, links, frame, deitel">
12
13<META NAME = "description" CONTENT = "This Web site will help
14  you learn the basics of HTML and Webpage design through the
15  use of interactive examples and instruction.">
16
17<FRAMESET COLS = "110,*">
18  <FRAME NAME = "nav" SCROLLING = "no" SRC = "nav.html">
19
20  <!-- Nested Framesets are used to change the formatting -->
21  <!-- and spacing of the frameset as a whole -->
22  <FRAMESET ROWS = "175,*">
23    <FRAME NAME = "picture" SRC = "picture.html" NORESIZE>
24    <FRAME NAME = "main" SRC = "main.html">
25  </FRAMESET>
26
27  <NOFRAMES>
28    <P>This page uses frames, but your browser doesn't
29    support them.</P>
```

# Nested Frames



```
30      <P>Get Internet Explorer 5 at the
31          <A HREF = "http://www.microsoft.com/">Microsoft
32      Web-Site</A></P>
33
34  </NOFRAMES>
35
36 </FRAMESET>
37 </HTML>
```

# Framed Web site with a nested frameset



# Homework



- Modify the NDDU home page that you have created applying the different objects and tags.