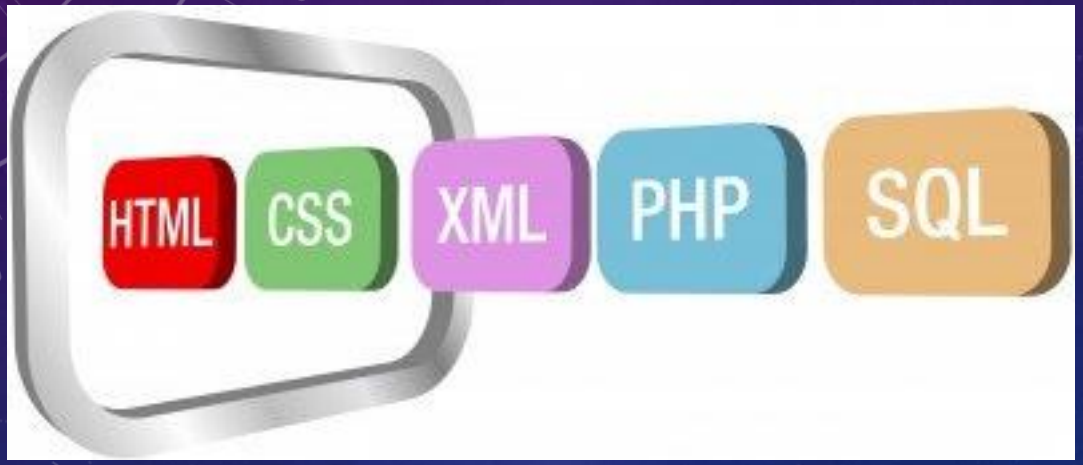
LECTURE 04 (01): PAGE LAYOUT

Web Programming

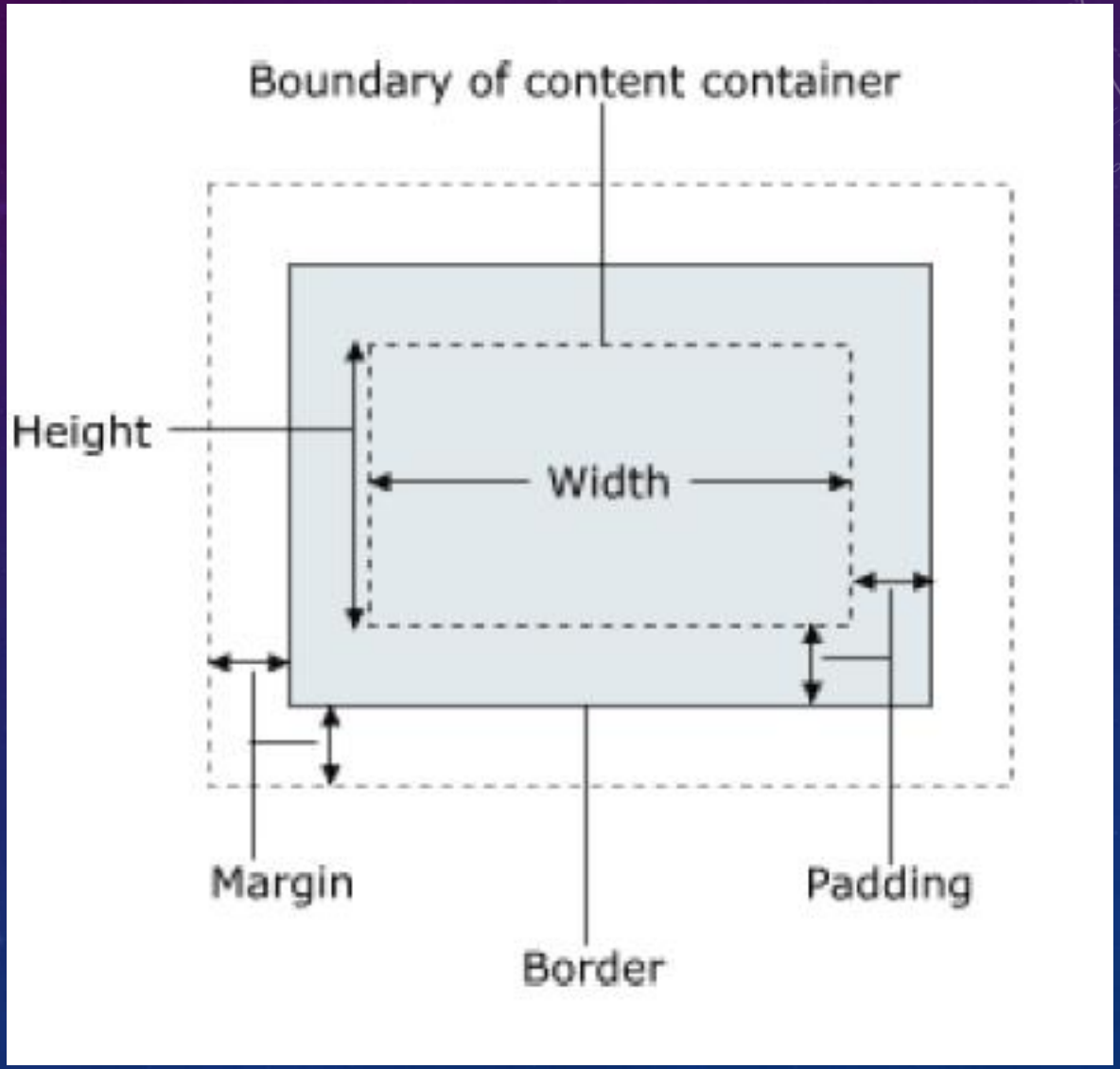


INSTRUCTOR: DR. MOHAMMED ABDALLA

PAGE LAYOUT
THE CSS BOX MODEL

- for layout purposes, every element is composed of:
  - The **element's content**
  - a **border** around the element
  - **padding** between the content and the border (inside)
  - a **margin** between the border and other content (outside)
- width = content width + L/R padding + L/R border + L/R margin
- height = content height + T/B padding + T/B border +T/B margin

PAGE LAYOUT
THE CSS BOX MODEL



CSS PROPERTIES FOR BORDERS

CSS

```
h2 { border: 5px solid red; }
```

Output

This is a heading.

property	description
border	thickness/style/size of border on all 4 sides

- **thickness** (specified in px, pt, em, or thin, medium, thick)
- **style** (none, hidden, dotted, dashed, double, groove, inset, outset, ridge, solid)
- **color** (specified as seen previously for text and background colors)

MORE BORDER PROPERTIES

property	description
`border-color`, `border-width`, `border-style`	specific properties of border on all 4 sides
`border-bottom`, `border-left`, `border-right`, `border-top`	all properties of border on a particular side
`border-bottom-color`, `border-bottom-style`, `border-bottom-width`, `border-left-color`, `border-left-style`, `border-left-width`, `border-right-color`, `border-right-style`, `border-right-width`, `border-top-color`, `border-top-style`, `border-top-width`	properties of border on a particular side

BORDER EXAMPLE

- each side's border properties can be set individually

CSS

```
h2 {
  border-left: thick dotted #CC0088;
  border-bottom-color: rgb(0, 128, 128);
  border-bottom-style: double;
}
```

Output

CSS PROPERTIES FOR PADDING

property	description
`padding`	padding on all 4 sides
`padding-bottom`	padding on bottom side only
`padding-left`	padding on left side only
`padding-right`	padding on right side only
`padding-top`	padding on top side only

PADDING EXAMPLE 1

CSS

```
p { padding: 20px; border: 3px solid black; }
h2 { padding: 0px; background-color: yellow; }
```

Output

This is the first paragraph

This is the second paragraph

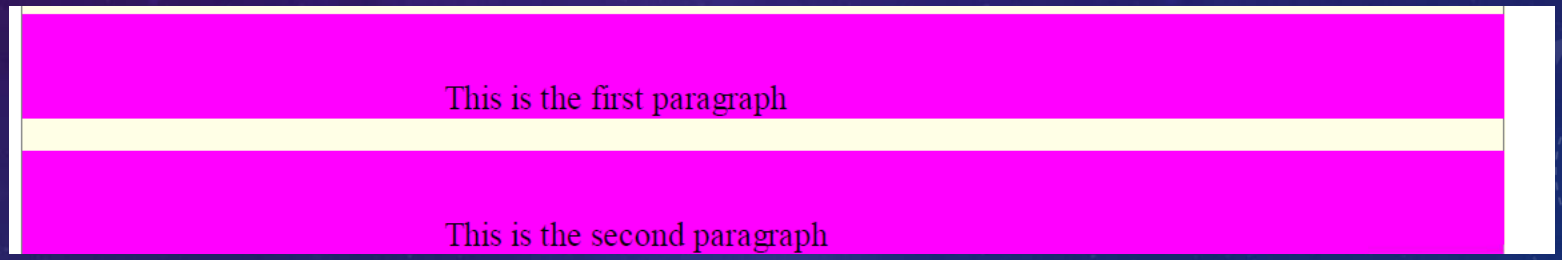
This is a heading

PADDING EXAMPLE 2

CSS

```
p {
  padding-left: 200px; padding-top: 30px;
  background-color: fuchsia;
}
```

Output



CSS PROPERTIES FOR MARGINS

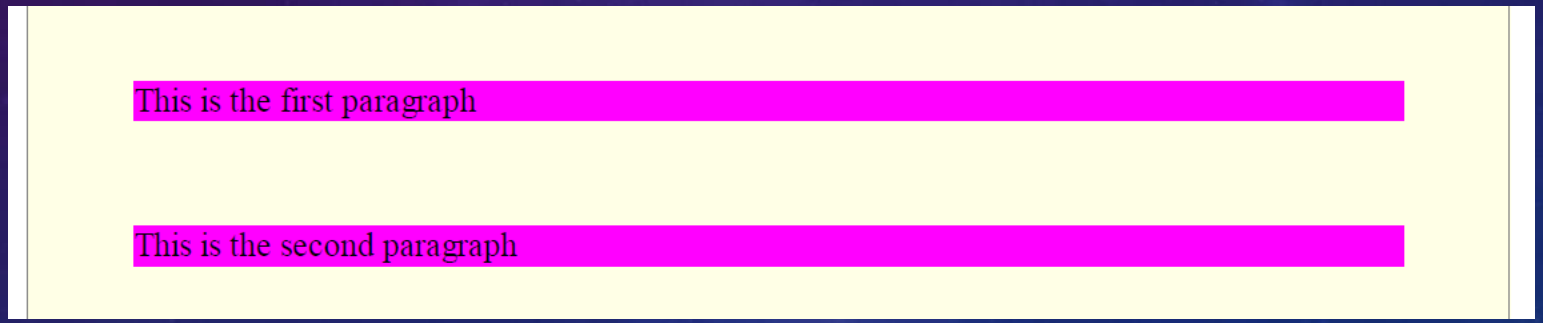
property	description
`margin`	margin on all 4 sides
`margin-bottom`	margin on bottom side only
`margin-left`	margin on left side only
`margin-right`	margin on right side only
`margin-top`	margin on top side only

MARGIN EXAMPLE 1

CSS

```
p {
  margin: 50px;
  background-color: fuchsia;
}
```

Output



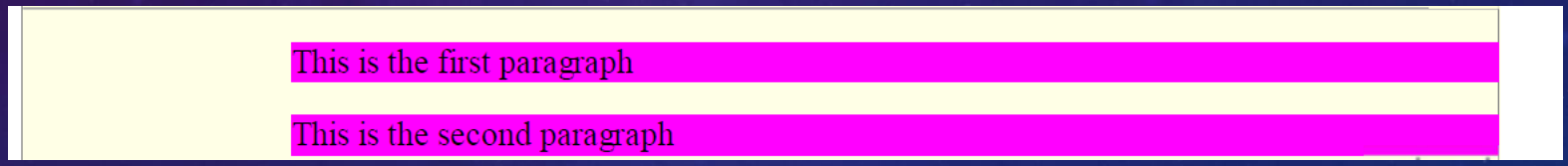
- notice that margins are always transparent
  (they don't contain the element's background color, etc.)

MARGIN EXAMPLE 2

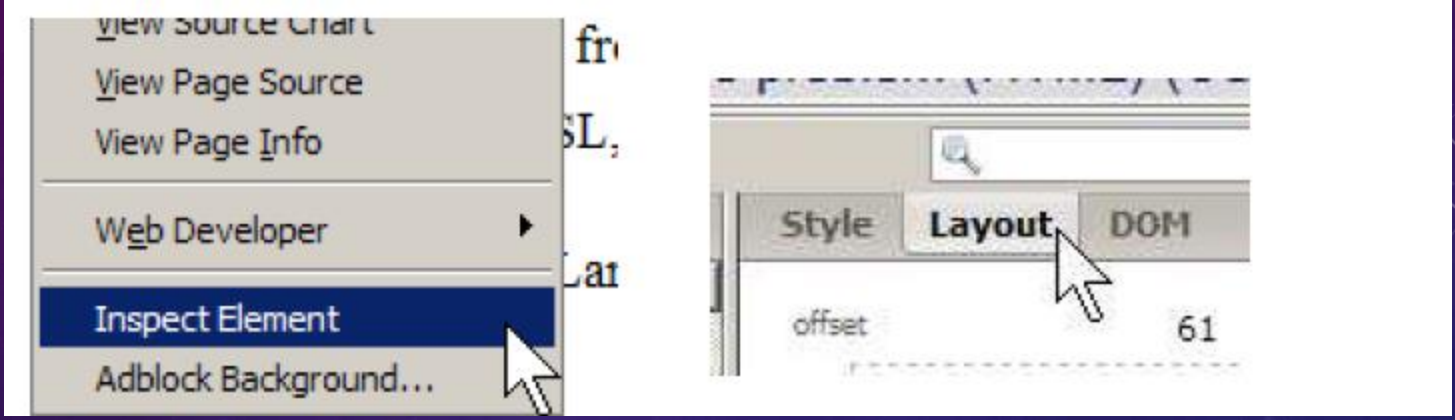
CSS

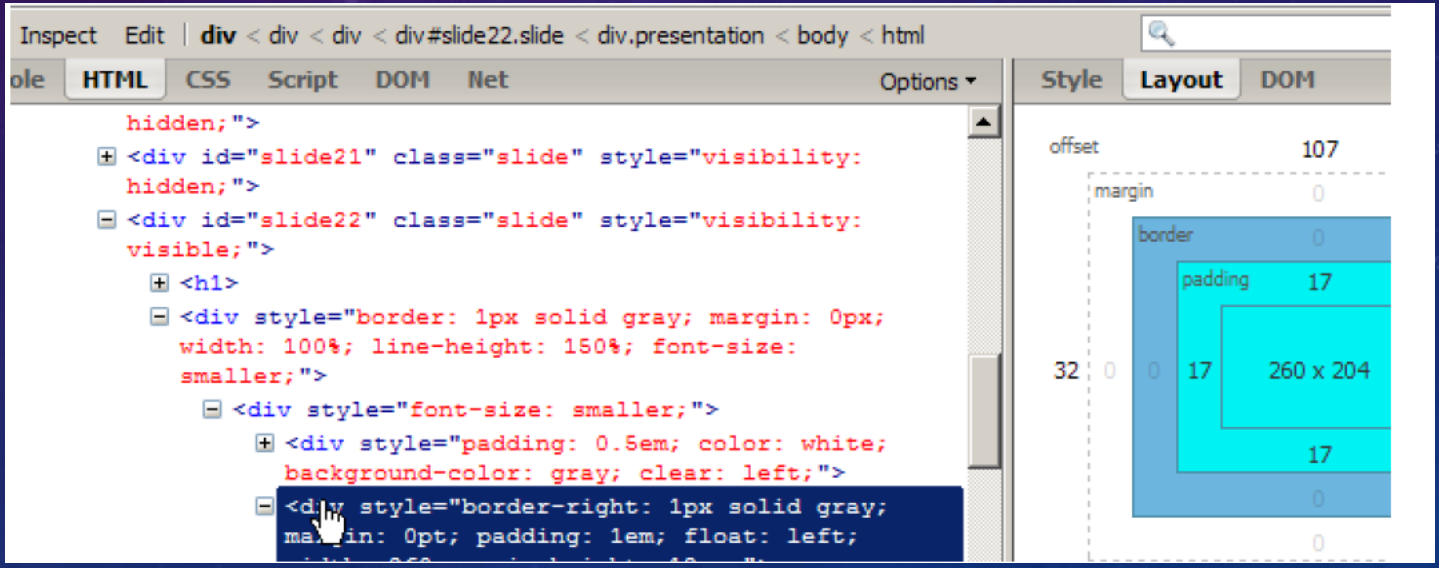
```
p {
  margin-left: 8em;
  background-color: fuchsia;
}
```

Output



FIREFOX FIREBUG ADD-ON





CSS PROPERTIES FOR DIMENSIONS

CSS

```
p { width: 350px; background-color: yellow; }
h2 { width: 50%; background-color: aqua; }
```

Output

This paragraph uses the first style above.

An h2 heading

property	description
`width`, `height`	how wide or tall to make this element (block elements only)
`max-width`, `max-height`, `min-width`, `min-height`	max/min size of this element in given dimension

PAGE LAYOUT
SECTIONS OF A PAGE: <DIV>

- a section or division of your HTML page (block)
- a tag used to indicate a logical section or area of a page
- has no appearance by default, but you can apply styles to it

HTML

```
<div class="standout">
  <h2>Spatula City!  Spatula City!</h2>
  <p class="special">See our spectacular spatula specials!</p>
  <p>We'll beat any advertised price!</p>
</div>
```

Output

Spatula City! Spatula City!

See our spectacular spatula specials!

We'll beat any advertised price!

INLINE SECTIONS: <SPAN>

- has no on screen appearance, but you can apply a style or ID to it, which will be applied to the text inside the span

HTML

```
<h2>Spatula City!  Spatula City!</h2>
<p>See our <span class="special">spectacular</span> spatula specials!</p>
<p>We'll beat <span class="standout">any advertised price</span>!</p>
```

Output

Spatula City! Spatula City!

See our **spectacular** spatula specials!

We'll beat any advertised price!

CSS CONTEXT SELECTORS

applies the given properties to ***selector2*** only if it is inside a ***selector1*** on the page

applies the given properties to ***selector2*** only if it is *directly* inside a ***selector1*** on the page (***selector1*** tag is immediately inside ***selector2*** with no tags in between)

CSS

```
selector1  selector2  {
    properties
}
```

```
selector1  >  selector2  {
    properties
}
```

CONTEXT SELECTOR EXAMPLE

HTML

```
<p>Shop at <strong>Hardwick's Hardware</strong>...</p>
<ul>
  <li>The <strong>best</strong> prices in town!</li>
  <li>Act while supplies last!</li>
</ul>
```

CSS

```
li strong { text-decoration: underline; }
```

Output

Shop at **Hardwick's Hardware**...

- The **best** prices in town!
- Act while supplies last!

MORE COMPLEX EXAMPLE

HTML

```
<div id="ad">
  <p>Shop at <strong>Hardwick's Hardware</strong>...</p>
  <ul>
    <li class="important">The <strong>best</strong>
    prices in town!</li>
    <li>Act <strong>while supplies last!</strong></li>
  </ul>
</div>
```

CSS

```
#ad li.important strong { text-decoration: underline; }
```

Output

Shop at **Hardwick's Hardware**...

- The **best** prices in town!
- Act **while supplies last!**

PAGE LAYOUT
SECTIONS OF A PAGE: <DIV>

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title> Page Title</title>
</head>
<body>
<div id="container" style="width:500px">
    <div id="header" style="background-color:#7f81f6;">
            <h1 style="margin-bottom:0;"> Title of Web Page and Logo</h1>
     </div>
     <div id="menu" style="background-color:#c6c6f7;height:200px;width:100px;float:left;">
           <ul>
                <li class="first selected"><a href="index.html">Home</a></li>
                <li><a href="about.html">About us</a></li>
                <li><a href="services.html">Services</a></li>
                <li><a href="solutions.html">Solutions</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
    </div>
    <div id="content" style="background-color:#EEEEEE;height:200px;width:400px;float:left;">
        The body here
    </div>
    <div id="footer" style="background-color:#dedefa;clear:both;text-align:center;">
        Copyright © xyz.com
    </div>
  </div>
</body>
</html>
```

PAGE LAYOUT
SECTIONS OF A PAGE: <DIV>

USING TABLE <TABLE>

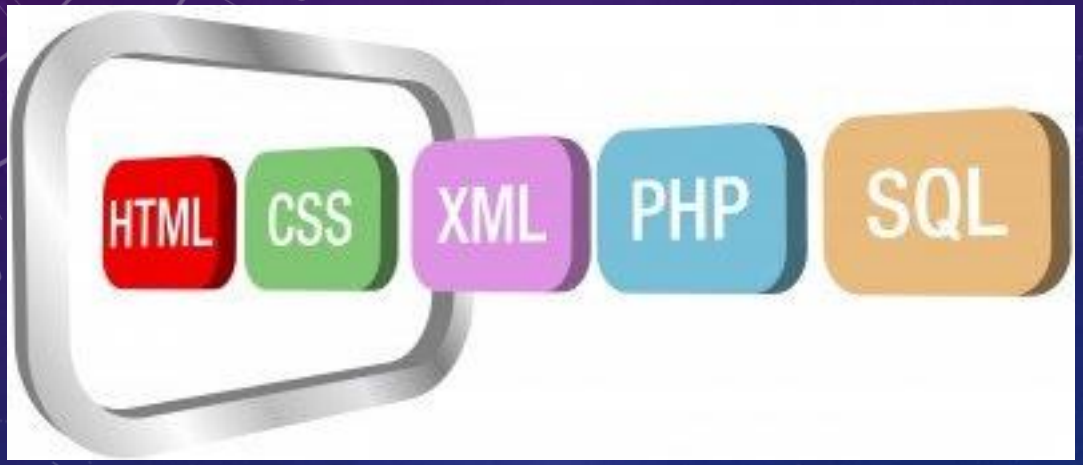
```
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title> Page Title</title>
</head>
   <body>
      <table width="500">
            <tr>
               <td colspan="2" style="background-color:#7f81f6;">
                   <h1>Title of Web Page and Logo</h1>
               </td>
            </tr>
            <tr>
               <td style="background-color:#c6c6f7;width:100px;" valign="top">
                   <ul>
                       <li class="first selected"><a href="index.html">Home</a></li>
                       <li><a href="about.html">About us</a></li>
                       <li><a href="services.html">Services</a></li>
                       <li><a href="solutions.html">Solutions</a></li>
                       <li><a href="contact.html">Contact</a></li>
                   </ul>
               </td>
               <td style="background-color:#EEEEEE;height:200px;width:400px;">
                    The body here
               </td>
            </tr>
            <tr>
               <td colspan="2" style="background-color:#dedefa;text-align:center;">
                     Copyright © xyz.com
                </td>
            </tr>
        </table>
    </body>
</html>
```

PAGE LAYOUT
USING TABLE <TABLE>

TEMPLATE EXAMPLES

LECTURE 04 (02): HTML FORMS AND SERVER-SIDE DATA

Web Programming



INSTRUCTOR: DR. HOSSAM ZAWBAA

HTML FORMS AND SERVER-SIDE DATA

- some web pages allow us to submit our own new data
- most server-side web programs accept **parameters that guide their execution**

FORM EXAMPLE: CREATING EMAIL ACCOUNT

FORM EXAMPLE: CREATING EMAIL ACCOUNT

QUERY STRINGS AND PARAMETERS

- *URL?name=value&name=value...*

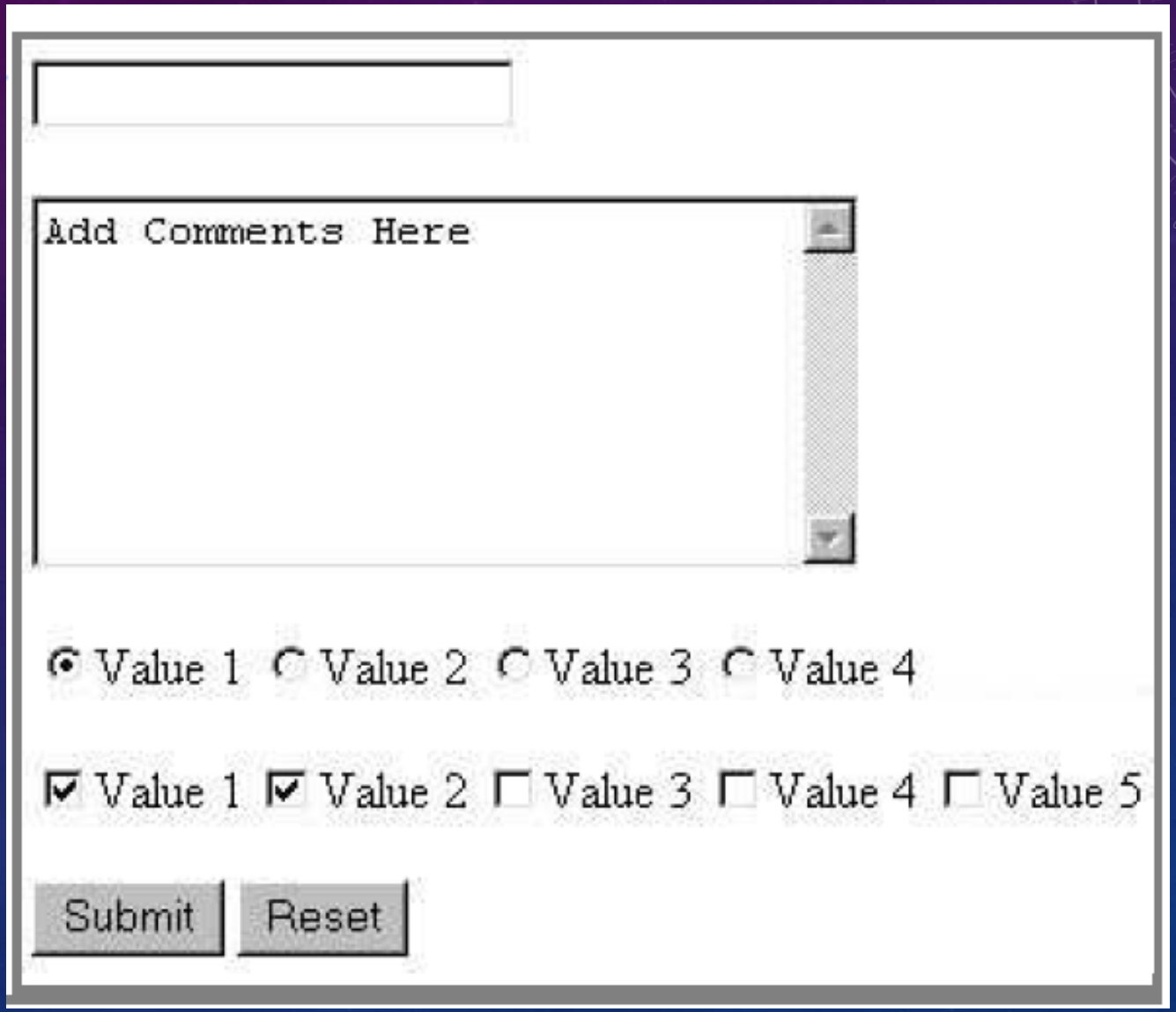
```
http://example.com/student_login.php?username=stepp&sid=1234567
```

  server
  - often passed by placing name/value pairs at the end of a URL
  - above, parameter username has value stepp, and sid has value 1234567
- PHP (or ASP or ASP.net) code on the server can examine and utilize the value of parameters

HTML FORMS

- **Form is a group of UI controls that accepts information from the user and sends the information to a web server.**
- forms use HTML UI controls (buttons, checkboxes, text fields, etc.)
- the information is sent to the server as a query string
- **JavaScript can be used to create interactive controls** (seen later)

HTML FORMS


Add Comments Here
Value 1
Value 2
Value 3
Value 4
Value 1
Value 2
Value 3
Value 4
Value 5
Submit
Reset

HTML FORM: <FORM>

HTML

```
<form action="web service URL">
   form controls
</form>
```

- required action attribute gives the URL of the server web service that will process this form's data

FORM EXAMPLE

HTML

```
<form action="http://www.google.com/search">
  <div>
    Let's search Google:
    <input name="q" />
    <input type="submit" />
  </div>
</form>
```

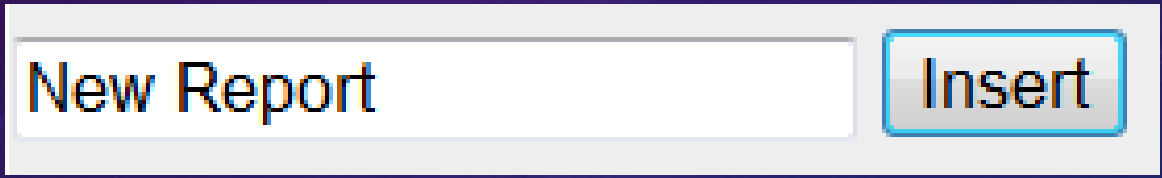
OUTPUT

FORM CONTROLS: <INPUT>

HTML

```
<input type="text" name="q" value="New Report" />
<input type="submit" value="Insert" />
```

OUTPUT



- **input** element is used to create many UI controls
  - an inline element that MUST be self-closed
- **name** attribute specifies name of query parameter to pass to server
- **type** can be button, checkbox, file, hidden, password, radio, reset, submit, text, ...
- **value** attribute specifies control's initial text

TEXT FIELDS: <INPUT>

HTML

```
<input type="text" size="10" maxlength="8" /> NetID<br />
<input type="password" size="16" /> Password
<input type="submit" value="Log In" />
```

OUTPUT

- `input` attributes: `disabled`, `maxlength`, `readonly`, `size`, `value`
- `size` attribute controls onscreen width of text field
- `maxlength` limits how many characters user is able to type into field