HTML, XHTML, and XML

3rd Edition

Tutorial 4

Creating Special Effects with CSS

Thanks to the author of the textbook for providing these slides. I made slight changes/additions.
Turgay Korkmaz

Objectives

- Work with CSS selectors
- Create styles for lists
- Create and apply **class** styles
- Create a rollover effect
- Create a drop cap using a pseudo-element
- Manage **page layout** with CSS
- Work with **overflow** and clipping styles

Objectives

- Create stacked objects
- Apply styles to various media
- Hide elements from printing
- Create and apply printer styles
- Create and prohibit page breaks for printing

Initial design for the Getting Started page

Final appearance of the Getting Started page

Working with Selector Patterns
contextual selectors

- Instead of using id for all the various elements, can we apply styles to elements based on their location or use in the web page?

- On a Web page, elements are nested within other elements, forming a hierarchical tree structure

```
                        body
     ┌──────┬──────┬──────┼──────┬──────┐
    h1     h2      p      p     h2      p
                       ┌──┴──┐          │
                       b   span         b
                            │
                            b
```

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Working with Selector Patterns
contextual selectors

- To take advantage of this tree structure, CSS allows you to create **contextual selectors** that express the location of an element within the hierarchy of elements
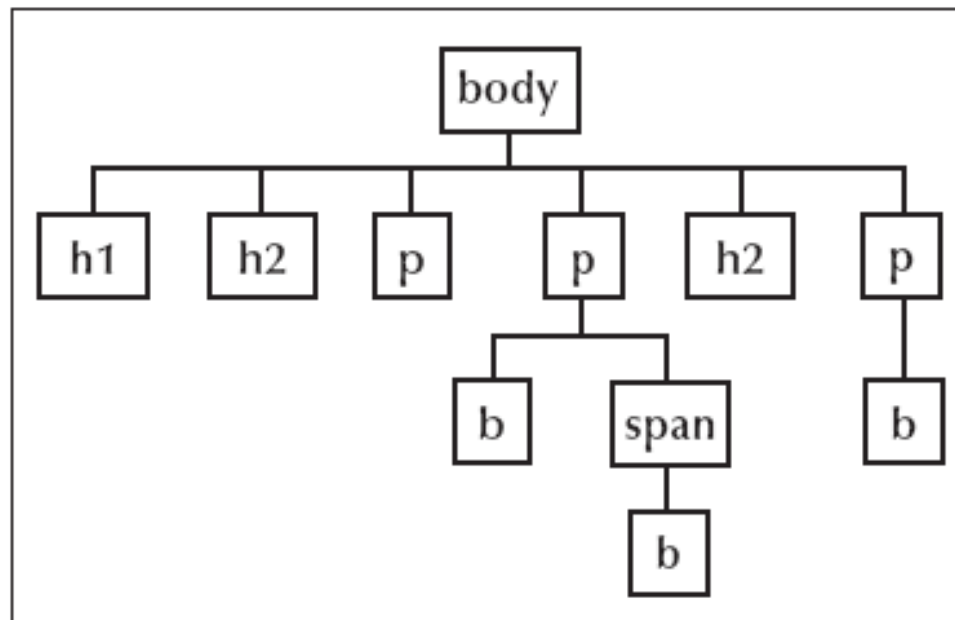
parent descendant {styles}

NO ,
```
  li b {color: blue}
  li b, h2 {color: blue}
  #notes b {color: blue}
  * {color: blue}
  p > b {color: blue}
```


Selector	Description
*	Matches any element in the hierarchy
e	Matches any element, e, in the hierarchy
e1, e2, e3, …	Matches the group of elements: e1, e2, e3, …
e f	Matches any element, f, that is a descendant of an element, e
e > f	Matches any element, f, that is a direct child of an element, e
e + f	Matches any element, f, that is immediately preceded by a sibling element, e
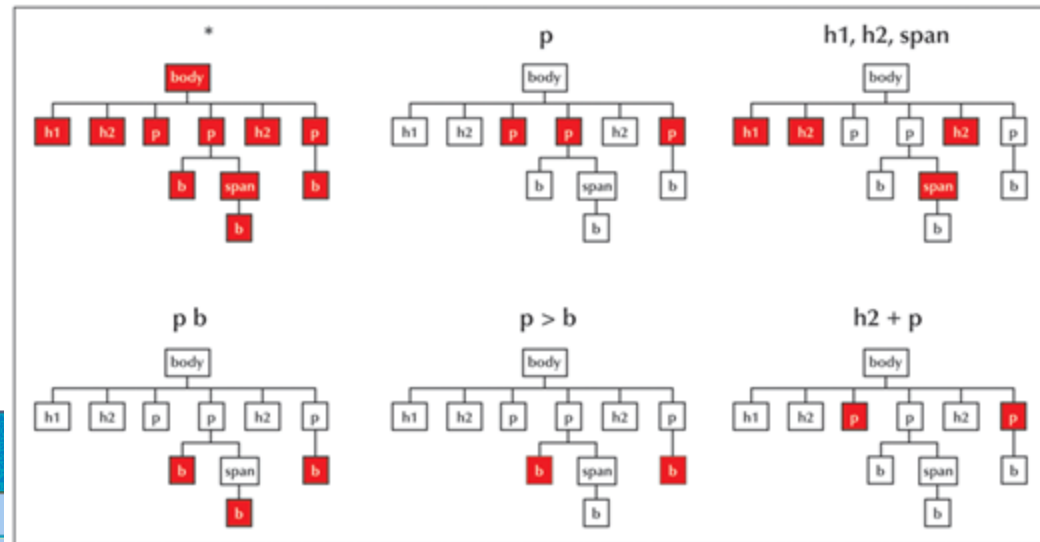
Working with Selector Patterns

- On occasion you might also need to select elements based on their attribute values

```
element[att] {styles}
```

```
a[href] {color: blue}
```

* …*

Will be affected but

Not

<a>

Selector	Description	Example	Interpretation
elem[att]	The element contains the *att* attribute	a[href]	Matches hypertext elements containing the href attribute
elem[att="val"]	The element's *att* attribute equals *val*	a[href="gloss.htm"]	Matches hypertext elements whose href attribute equals "gloss.htm"
elem[att~="val"]	The element's *att* attribute value is a space-separated list of words, one of which is exactly *val*	a[rel~="glossary"]	Matches hypertext elements whose rel attribute contains the word "glossary"
elem[att|="val"]	The element's *att* attribute value is a hyphen-separated list of words beginning with *val*	p[id|="first"]	Matches paragraphs whose id attribute starts with the word "first" in a hyphen-separated list of words
elem[att^="val"]	The element's *att* attribute begins with *val* (CSS3)	a[rel^="prev"]	Matches hypertext elements whose rel attribute begins with "prev"
elem[att$="val"]	The element's *att* attribute ends with *val* (CSS3)	a[href$="org"]	Matches hypertext elements whose href attribute ends with "org"
elem[att*="val"]	The element's *att* attribute contains the value *val* (CSS3)	a[href*="faq"]	Matches hypertext elements whose href attribute contains the text string "faq"

Using Selector Patterns

- To apply a style to all elements in the document, use the * selector

- To apply a style to a single element, use the **e** selector, where **e** is the name of the element

- To apply a selector to a descendant element, **f**, use the **e f** selector, where **e** is the name of the parent element and **f** is an element nested within the parent

- To apply a selector to a child element, **f**, use the **e > f** selector, where **e** is the name of a parent element and **f** is an element that is a direct child of the parent

- To apply a selector to a sibling element, use the **e + f** selector, where **e** and **f** are siblings and **f** immediately follows **e** in the document tree

Working with Selector Patterns

```
#pullout            {float: right; width: 250px; margin: 0px 0px 10px 10px;
                     border: 5px outset orange; background-color: ivory;
                     font-size: 10pt; font-family: Arial, Helvetica, sans-serif}
#pullout h2         {text-align: center; background-color: white; margin-top: 0px;
                     border-bottom: 2px solid orange}
```

selector references only those h2 elements within an element with the pullout id

other h2 headings are not affected by the new design

only the h2 heading within the Basic Materials box is affected

We could give an id and do the same thing, right?

ONLINE

SCRAPBOOKS

- Home
- Getting Started
- Scrapbooking Tips
- Supply List
- Glossary
- Online Classes
- Sample Pages
- Online Store
- Shopping Cart
- Checkout
- Your Account
- Order Status
- Wish List
- Customer Service
- About Us
- Newsletter
- FAQ
- Contact Us

Getting Started

Scrapbooking is the practice of combining photos, memorabilia, and stories in an album, preserving memories for future generations. In recent years, scrapbooking has become a $300 million dollar industry as the public has discovered the joys of creating albums for families and friends. Online Scrapbooks is here to help you with all of your scrapbooking needs.

Preserving Your Memories

Scrapbook albums have existed since the beginning of photography. However, the sad fact is that photographs and most printed material are not permanent; they will fade and yellow with age. Scrapbookers of today are aware of these problems, and the industry is providing remedies to minimize deterioration. For the best results, avoid using materials with high acid content which can cause photos and paper to deteriorate. Another thing to avoid is lignin, a material that is the bonding element in wood fibers. Over time, paper with lignin will become yellow and brittle, so you should only use lignin-free products.

Basic Materials

- Acid-free paper, card stock, and stickers
- Acid-free pen, markers, and adhesive
- Acid-free memory book album
- Straight and pattern edge scissors
- Photos and photo corners
- Paper punches
- Journalling templates
- Decorative embellishments

Working with Selector Patterns

- **Conditional comments** allow you to apply different HTML code for different versions of Internet Explorer

```
<!-- [if condition IE version]><!-->
HTML code
<!--<![endif]-->
```

Applying Styles to Lists

- To specify the list marker displayed by the browser, you can apply the style

  `list-style-type: type`

list-style-type	Marker (s)
disc	●
circle	○
square	□
decimal	1, 2, 3, 4, …
decimal-leading-zero	01, 02, 03, 04, …
lower-roman	i, ii, iii, iv, …
upper-roman	I, II, III, IV, …
lower-alpha	a, b, c, d, …
upper-alpha	A, B, C, D, …
none	no marker displayed

`list-style-image: url(file)`

Applying Styles to Lists

```
ol            {list-style-type: upper-roman}
ol ol         {list-style-type: upper-alpha}
ol ol ol      {list-style-type: decimal     }
ol ol ol ol   {list-style-type: lower-alpha}
```

styles

```
<ol>
    <li>Main Point 1</li>

    <ol>
        <li>Subpoint 1</li>
        <li>Subpoint 2</li>

        <ol>
            <li>Item 1</li>
            <li>Item 2</li>

            <ol>
                <li>Subitem 1</li>
                <li>Subitem 2</li>
            </ol>

            <li>Item 3</li>
        </ol>

        <li>Subpoint 3</li>
    </ol>

    <li>Main Point 2</li>
    <li>Main Point 3</li>
</ol>
```

HTML code

I.   Main Point 1
      A.   Subpoint 1
      B.   Subpoint 2
            1.   Item 1
            2.   Item 2
                  a.   Subitem 1
                  b.   Subitem 2
            3.   Item 3
      C.   Subpoint 3
II. Main Point 2
III. Main Point 3

text as rendered by browser

```
body          {margin: 0px; color: brown;
               background: white url(back.jpg) repeat-y}
h1, h2, h3 {font-family: Arial, Helvetica, sans-serif; color: orange}
h1            {border-bottom: 2px solid orange; background-color: white; margin: 0px; padding: 0px}
ul            {margin-top:0px}

#outer_container     {width: 780px}
#head                {text-align: right}

#links               {float: left; width: 200px}
#links ul            {list-style-type: none}

#article             {margin-left: 200px}

#pullout             {float: right; width: 250px; margin: 0px 0px 10px 10px;
                      border: 5px outset orange; background-color: ivory;
                      font-size: 10pt; font-family: Arial, Helvetica, sans-serif}
#pullout h2          {text-align: center; background-color: white; margin-top: 0px;
                      border-bottom: 2px solid orange}
#pullout ul          {list-style-image: url(bullet.jpg)}

address              {text-align: center; font-style: normal; font-variant: small-caps;
                      border-top: 2px solid orange; color: orange}
```

no marker is used with the list

the graphic file bullet.jpg is used for the list marker

Can we remove the extra space on the left of the list?

no bullet markers are displayed with the list

ONLINE

SCRAPBOOKS

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Home
Getting Started
Scrapbooking Tips
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Online Classes
Sample Pages
Online Store
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Checkout
Your Account
Order Status
Wish List
Customer Service
About Us
Newsletter
FAQ
Contact Us

the list is displayed with graphical markers

Basic Materials

➤ Acid-free paper, card stock, and stickers
➤ Acid-free pen, markers, and adhesive
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➤ Straight and pattern edge scissors
➤ Photos and photo corners
➤ Paper punches
➤ Journalling templates
➤ Decorative embellishments

Applying Styles to Lists

- Most browsers place the list marker to the left of the block, lining up the markers with each list item

  `list-style-position: position`

list-style-position: outside

list-style-position: inside

Spaces: margin vs. padding

depends on browser, try to change their sum

```
#outer_container      {width: 780px}
#head                 {text-align: right}

#links                {float: left; width: 200px}
#links ul             {list-style-type: none; margin-left: 15px; padding-left: 0px}


#article              {margin-left: 200px}

#pullout              {float: right; width: 250px; margin: 0px 0px 10px 10px;
                       border: 5px outset orange; background-color: ivory;
                       font-size: 10pt; font-family: Arial, Helvetica, sans-serif}
#pullout h2           {text-align: center; background-color: white; margin-top: 0px;
                       border-bottom: 2px solid orange}
#pullout ul           {list-style-image: url(bullet.jpg); margin-left: 25px; padding-left: 0px}

address               {text-align: center; font-style: normal; font-variant: small-caps;
                       border-top: 2px solid orange; color: orange}
```

SCRAPBOOKS ONLINE

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Working with Classes

- The class attribute is used when you want to identify elements that share a common characteristic (vs. ID)

  <elem class="class"> ... </elem>

- You can use the class attribute to assign the same style to multiple elements sharing the same class value

  .class {styles}

```
<h2 class="subtitle"> … </h2>
```

```
.subtitle {color: blue}
```

```
h2.subtitle {color: blue}
```

```
<div id="links">
    <ul>
        <li class="newGroup"><a href="#">Home</a></li>
        <li><a href="#">Getting Started</a></li>
        <li><a href="#">Scrapbooking Tips</a></li>
        <li><a href="#">Supply List</a></li>
        <li><a href="#">Glossary</a></li>
        <li><a href="#">Online Classes</a></li>
        <li><a href="#">Sample Pages</a></li>
        <li class="newGroup"><a href="#">Online Store</a></li>
        <li><a href="#">Shopping Cart</a></li>
        <li><a href="
        <li><a href="
        <li><a href="
        <li><a href="
        <li><a href="#">Customer Service</a></li>
        <li class="newGroup"><a href="#">About Us</a></li>
        <li><a href="#">Newsletter</a></li>
        <li><a href="#">FAQ</a></li>
        <li><a href="#">Contact Us</a></li>
    </ul>
</div>
```

```
#links                {float: left; width: 200px}
#links ul             {list-style-type: none; margin-left: 15px; padding-left: 0px}
#links li.newGroup {margin-top: 15px}
```

ONLINE

SCRAPBOOKS

scrapbooking
links

Home
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Sample Pages

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store links

Online Store
Shopping Cart
Checkout
Your Account
Order Status
Wish List
Customer Service

Preserving Your Memories

Basic Materials

links about
Online
Scrapbooks

About Us
Newsletter
FAQ
Contact Us

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Using Pseudo-Classes

creating link rollover

- How to make underlining a rollover efect for the list of link?

- A **pseudo-class** is a classification of an element based on its current status, position, or use in the document
  selector:pseudo-class {styles}

Pseudo-class	Description	Example
link	The link has not yet been visited by the user	a:link {color: red}
visited	The link has been visited by the user	a:visited {color: green}
active	The link is in the process of being activated by the user	a:active {color: yellow}
hover	The mouse pointer is hovering over the link	a:hover {color: blue}
focus	The element has received the focus of the keyboard or mouse pointer	input.focus {background-color: yellow}
first-child	The element is the first child of its parent	p:first-child {text-indent: 0}
lang	Specifies the language to be used with the element	q:lang(FR) {quotes: '<<' '>>'}

Using Pseudo-Classes

creating link rollover

```
#links              {float: left; width: 200px}
#links ul           {list-style-type: none; margin-left: 15px; padding-left: 0px}
#links li.newGroup  {margin-top: 15px}
#links a:link       {text-decoration: none}
#links a:visited    {text-decoration: none}
#links a:hover      {color: black; text-decoration: underline}
#links a:active     {text-decoration: none}
```


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Pseudo-Elements
Creating a Drop Cap

- **Pseudo-elements** are abstracted from what we know of an element's content, use, or position in the document

  selector:pseudo-element {styles}

  `p:first-letter {font-size:20pt}`

Pseudo-element	Description	Example
first-letter	The first letter of the element text	`p:first-letter {font-size:14pt}`
first-line	The first line of the element text	`p:first-line {text-transform: uppercase}`
before	Content inserted directly before the element	`p:before {content:"Special!"}`
after	Content appended to the element	`p:after {content:"eof"}`

Pseudo-Elements
Creating a Drop Cap

```
#firstp:first-line    {font-variant: small-caps}
#firstp:first-letter {float: left; font-size: 400%; line-height: 0.8}

#article              {margin-left: 200px}
```


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Generating Text with Pseudo-Elements

- *selector*:before {content: "*text*"}
- *selector*:after {content: "*text*"}

Examples

   em:after {content: " !"}

   a:hover:before {content: "<"}

   a:hover:after {content: ">"}

Summary

<t1> A1 </t1>

<t2> A2 </t2>

<t1> B1 <t2> B2 </t2> B3 </t1>

<t2 id="anid"> C1 </t2>

<t1 class="aclass"> D1 </t1>

<t2 class="aclass"> D2 </t1>

a.html

t1   { s1 }
t1, t2   { s2 }
t1 t2   { s3 }
#anid   { s4 }
.aclass   { s5 }
t1.aclass { s6 }
t1:pseudo-el { s7 }

a.css

Session 4.2
Positioning Objects with CSS
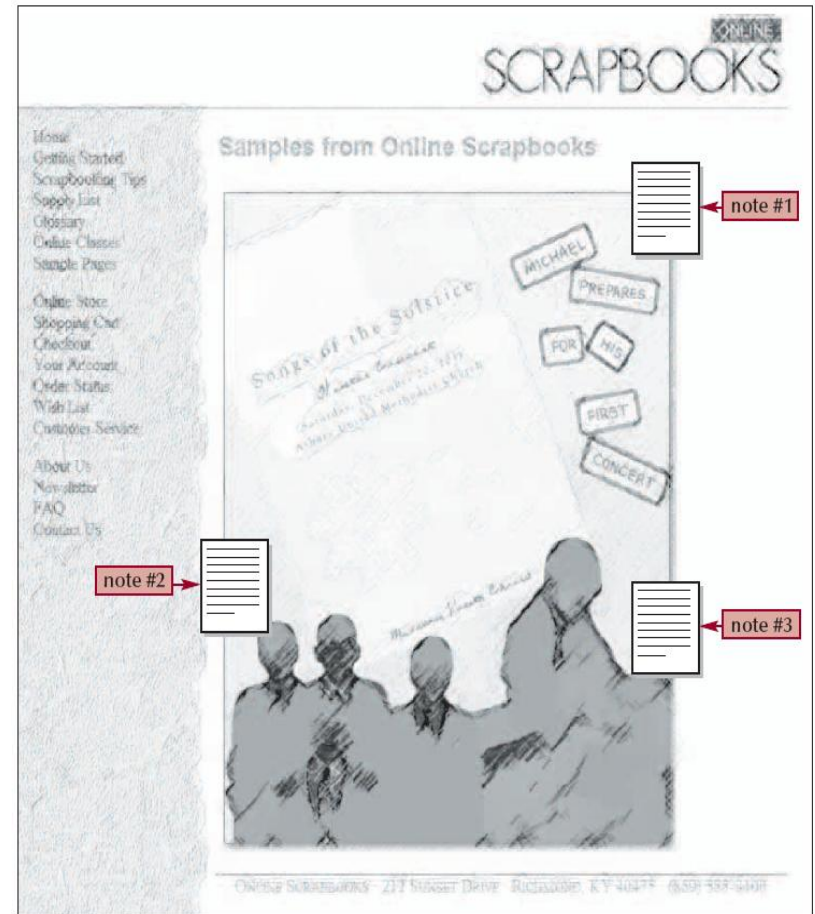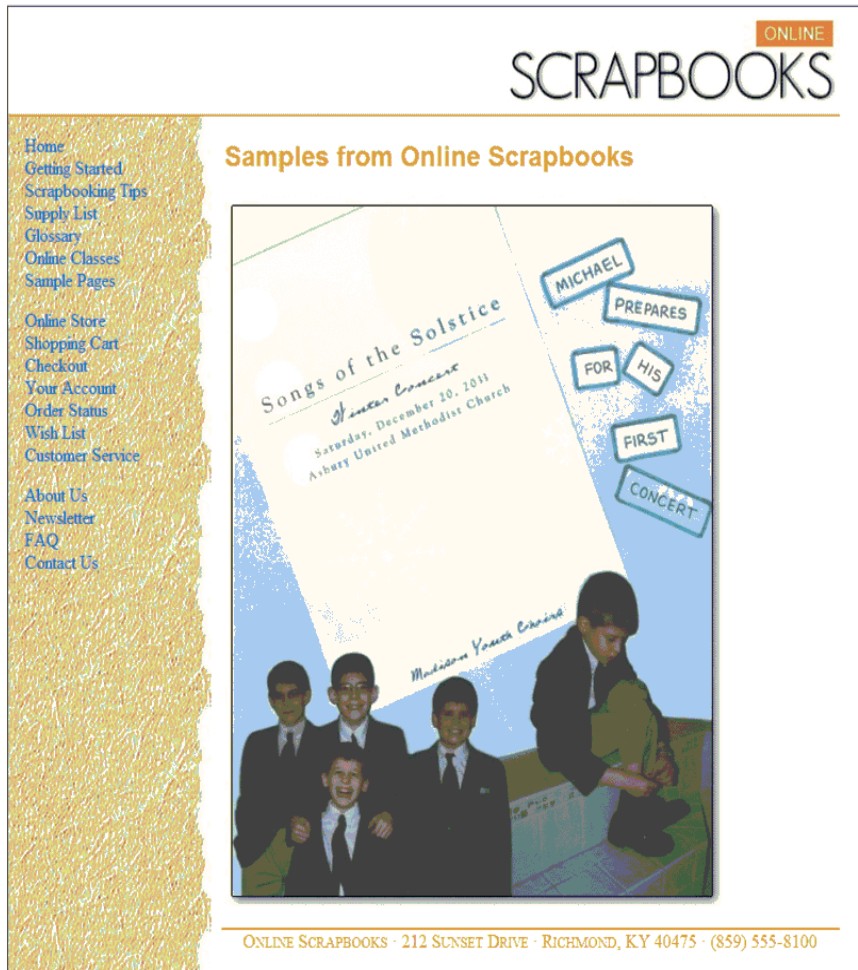
Positioning Objects with CSS

create content

- Create div containers for each note
- Add a class attribute to apply a common set of styles
- Each note should have a unique id

Textbook Pg 225

```
<div id="article">
    <h2>Samples from Online Scrapbooks</h2>

    <div id="note1" class="notes">
        <p>Paste cut-out letters and words in your scrapbook to create
        a 3D effect. Online Scrapbooks sells professionally
        designed cut-out letters, words, and phrases for all occasions.</p>
    </div>
    <div id="note2" class="notes">
        <p>Clippings, flyers, programs, and other memorabilia are valuable
        sources of information that can enhance your scrapbook pages.
        Make sure that any material is copied to acid-free paper.
        Newspaper clippings are especially susceptible to deterioration.</p>
    </div>
    <div id="note3" class="notes">
        <p>Photographic cut-outs and textured backgrounds can add visual
        interest to your pages. See the online store for our wide
        variety of textured and embossed papers.</p>
    </div>

    <div id="sample_image">
        <img src="sample.jpg" alt="sample page" width="474" height="616" />
    </div>
```

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Positioning Objects with CSS
create style

```
<title>Samples from Online Scrapbooks</title>
<link href="scraps.css" rel="stylesheet" type="text/css" />
<style type="text/css">
    .notes   {font-family: sans-serif; font-size: 8pt; color: brown;
              background-color: ivory; border: 3px inset rgb(212, 212, 212);
              width: 130px}
    .notes p {margin: 5px}
</style>
</head>
```

Textbook Pg 226

Paste cut-out letters and words in your scrapbook to create a 3D effect. Online Scrapbooks sells professionally designed cut-out letters, words, and phrases for all occasions.

Clippings, flyers, programs, and other memorabilia are valuable sources of information that can enhance your scrapbook pages. Make sure that any material is copied to acid-free paper. Newspaper clippings are especially susceptible to deterioration.

Photographic cut-outs and textured backgrounds can add visual interest to your pages. See the online store for our wide variety of textured and embossed papers.

note1　　　　　note2　　　　　note3

Now it is time to position them at appropriate locations!
But how?

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Positioning Objects with CSS
position

- **CSS-P** (**CSS-Positioning**) became part of the specification for CSS2, and positioning styles were some of the first CSS2 styles to be adopted by browsers
- To place an element at a specific location on a page
  `position: type; top: value; right: value; bottom: value; left: value;`
- `type` indicates type of positioning
  - static (default ignore coordinates), absolute, relative, fixed and inherit
- `top, right, bottom, left` indicate the coordinates
  - we can use two (e.g., `top, right`) find others using height, width

tutorial.04\demo
click demo_positioning.htm

Absolute positioning

- **Absolute positioning** enables you to place an element at **specific coordinates** either on a page or within a containing element

  ```
  position: absolute; left: 100px; top: 50px
  ```
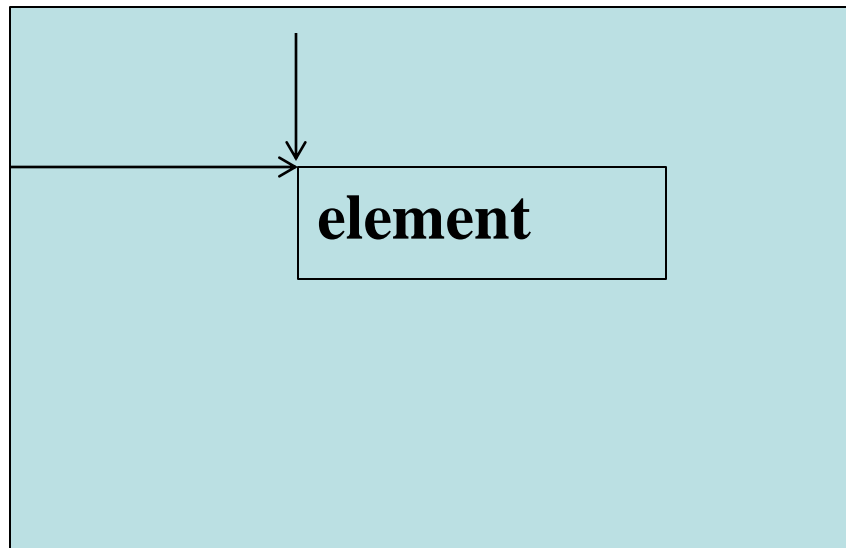

Once an element has been placed using **absolute** positioning, it affects the placement of other objects on the web page (see demo)

Absolute positioning

Absolute positioning within a nonpositioned element

yellow box is placed at the browser window coordinate (90, 75)

the outer red box returns to its original default location

Relative positioning

- **Relative positioning** is used to move an element relative to **its default position** on the page
`position: relative; left: 100px; top: 50px`

element
normal position

element
New position position
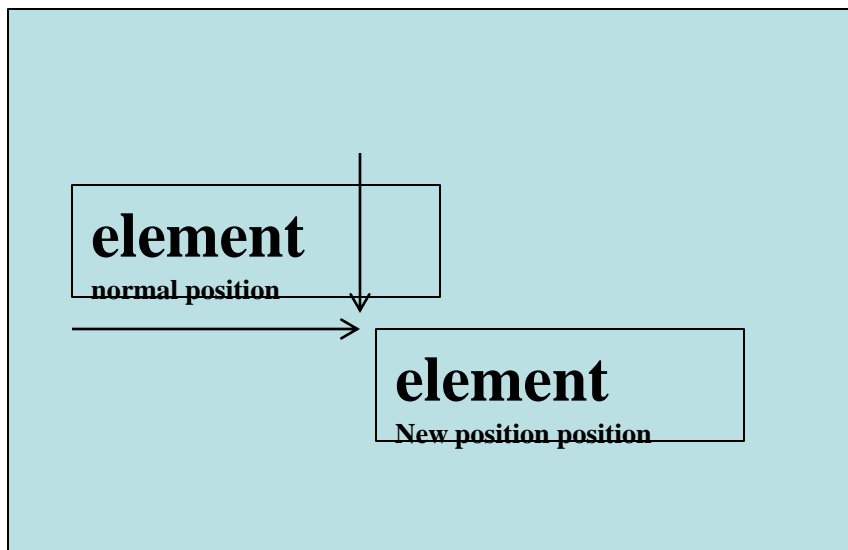
Once an element has been placed using **relative** positioning, it does NOT affect the placement of other objects on the web page (see demo). Other objects retain their position as if the element had never been moved…

Relative positioning

Relative positioning

This page demonstrates how different position styles affect layout. Select position values from the selection lists and input boxes below. The first column of input fields sets the position of the larger red box. The second column of input fields sets the position of the smaller yellow box. To reset both colored boxes to their default positions, click the **reset** button. The position of the paragraph with the dotted outline can't be set, but it may change in relation to the movements of the two colored boxes.

	position	left	top
outer	relative ▼	275	50
inner	static ▼	0	0	reset

Sample paragraph moves in relation to the placement of the outer and inner boxes.

the outer red box is moved 275 pixels to the right and 50 pixels down from its default location

the sample paragraph stays in its default location in the page flow

Fixed and Inherit positioning

Fixed and inherited positioning

COURSE TECHNOLOGY
CENGAGE Learning

New Perspectives on HTML and XHTML
Tutorial 4

C S S   P o s i t i o n i n g

This page demonstrates how different position styles affect layout. Select position values from the selection lists and input boxes below. The first column of input fields sets the position of the larger red box. The second column of input fields sets the position of the smaller yellow box. To reset both colored boxes to their default positions, click the **reset** button. The position of the paragraph with the dotted outline can't be set, but it may change in relation to the movements of the two colored boxes.

	position	left	top
outer	fixed	300	300
inner	inherit	600	300	reset

Sample paragraph moves in relation to the placement of the outer and inner boxes.

the two boxes are fixed at a specific location within the browser window

Positioning Objects with CSS

```
<style type="text/css">
    .notes    {font-family: sans-serif; font-size: 8pt; color: brown;
               background-color: ivory; border: 3px inset rgb(212, 212, 212);
               width: 130px}
    .notes p {margin: 5px}
    #note1    {position: absolute; left: 600px; top: 120px}
    #note2    {position: absolute; left: 170px; top: 400px}
    #note3    {position: absolute; left: 570px; top: 550px}
</style>
```


Textbook Pg 233
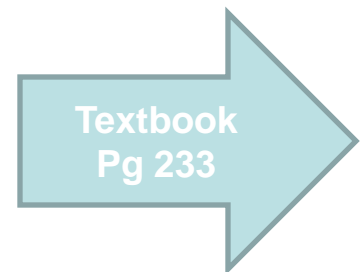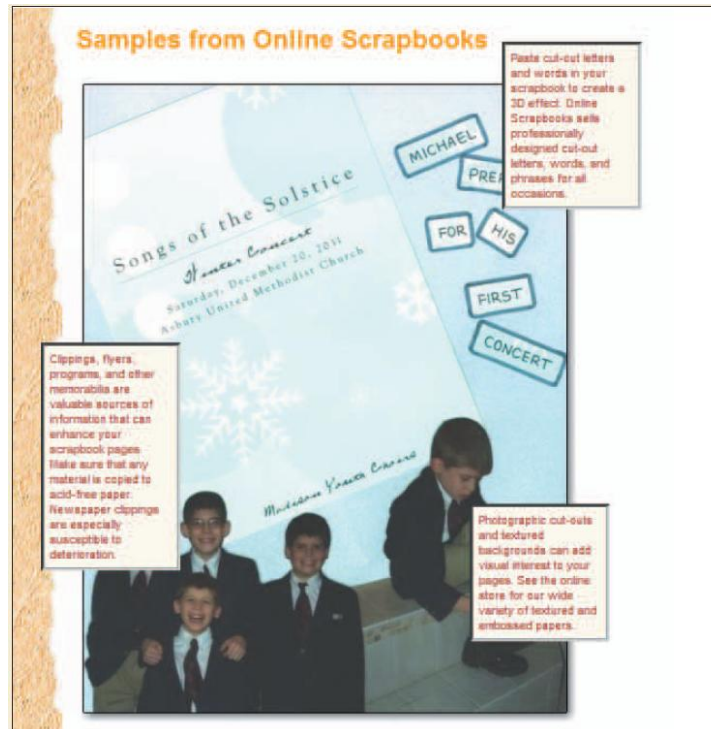
Notes are too big! Make them less intrusive

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Working with Overflow and Clipping

- If you want to force an element into a specified height and width, you have to define how the browser should handle a situation where content overflows the space allotted to the object

`overflow: type`

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```
visible                  hidden                  scroll                  auto
```

```
Clippings, flyers,       Clippings, flyers,      Clippings, flyers,      Clippings, flyers,
programs, and other      programs, and other     programs, and           programs, and
memorabilia are          memorabilia are         other memorabilia       other memorabilia
valuable sources of      valuable sources of     are valuable            are valuable
information that can      information that can                            sources of
enhance your             enhance your                                    information that can
scrapbook pages.
Make sure that any
material is copied to
acid-free paper.
Newspaper clippings
are especially
susceptible to
deterioration.
```

```
<style type="text/css">
    .notes    {font-family: sans-serif; font-size: 8pt; color: brown;
               background-color: ivory; border: 3px inset rgb(212, 212, 212);
               width: 130px; height: 90px; overflow: auto}
    .notes p {margin: 5px}
    #note1    {position: absolute; left: 600px; top: 120px}
    #note2    {position: absolute; left: 170px; top: 400px}
    #note3    {position: absolute; left: 570px; top: 550px}
</style>
```

Working with Overflow and Clipping

- The clip style allows you to define a rectangular region through which the element's content can be viewed
  ```
  clip: rect(top, right, bottom, left)
  ```


75 pixels

10 pixels {

125 pixels

175 pixels

full element

clip: rect(10, 175, 125, 75)
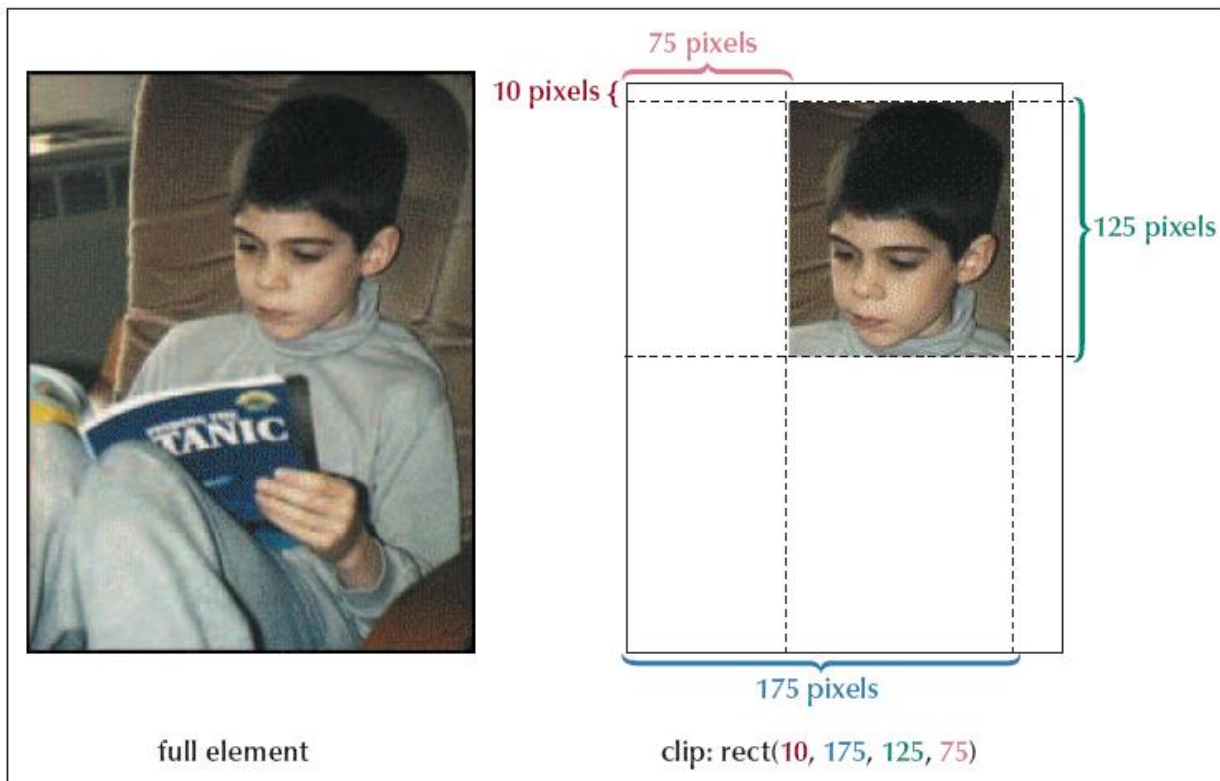
Limiting Width and Height

```
min-width: value

min-height: value

max-width: value

max-height: value

div {    width: 80%;
         min-width: 200px;
         max-width:700px

}
```

/* width of div is 80% of web browser but it is not lees than 200px or more than 700px */

Stacking Elements

- Elements placed using CSS positioning are stacked on top of other elements, leading overlaps

- To specify a different stacking order, use the style:
  `z-index: value`

- Only works with absolute positioning under same parent

- If parents are different, no impact
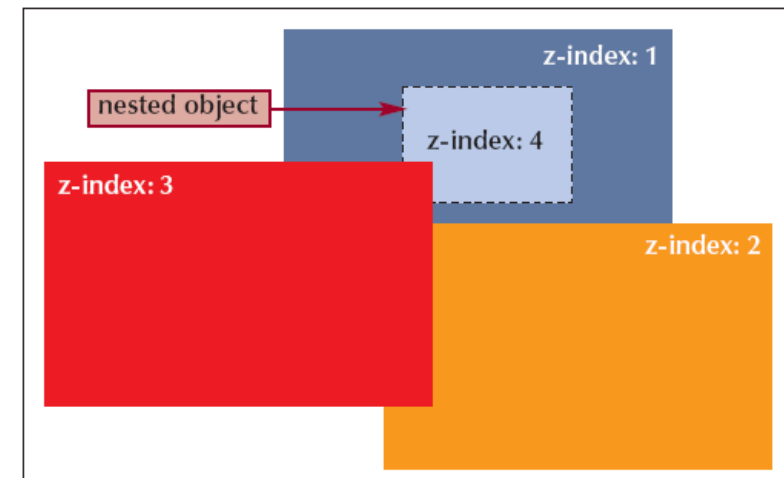
Session 4.3
Working with Different Media

- How will this page
  look like on a printed page?

- By default, a style sheet is
  applied to all devices, and
  each device must determine
  how best to match the styles to
  its own requirements
- But the result may not look good on printer
- CSS allows us to use different styles for different media

Samples from Online Scrapbooks

Session 4.3
Working with Different Media

HTML

CSS
scraps.css

CSS
print.css

Samples from Online Scrapbooks

Paste cut-out letters and words in your scrapbook to create a 3D effect. Online Scrapbooks sells professionally

Clippings, flyers, programs, and other memorabilia are valuable sources of information that can

Photographic cut-outs and textured backgrounds can add visual interest to your pages. See the online store for

Kathy's proposed printed output

Samples from Online Scrapbooks

- note 1
- note 2
- note 3

page 1

page 2
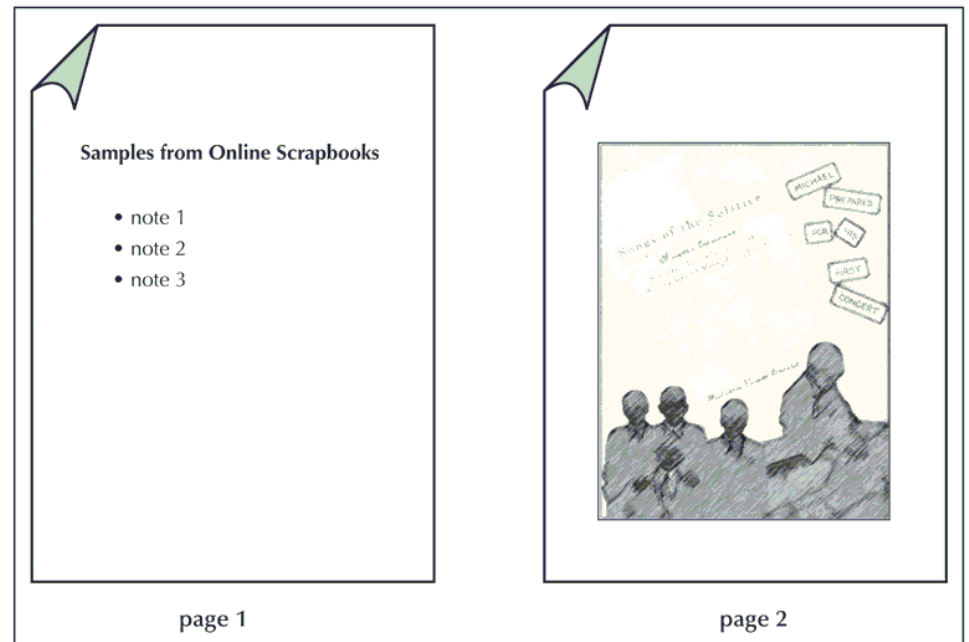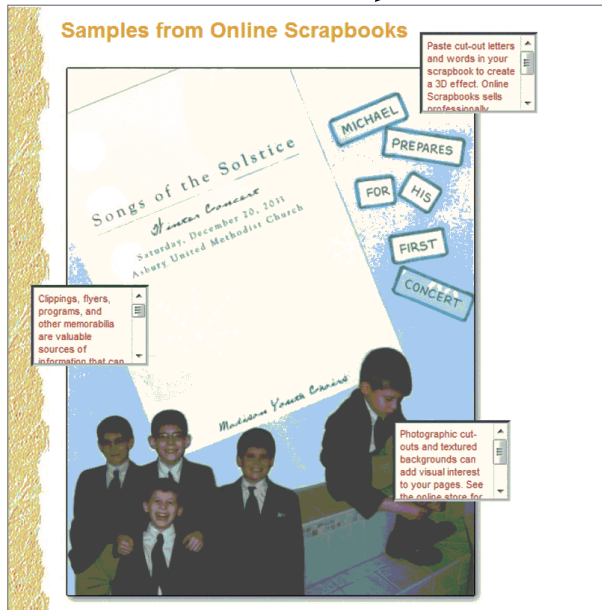
Working with Different Media
Media Types

```
<style type="text/css" media="value">
  ...
</style>                    or
<link href="url" type="text/css" media="value"
  … />
```

Value	Used for
all	All output devices (the default)
aural	Speech and sound synthesizers
braille	Braille tactile feedback devices
embossed	Paged Braille printers
handheld	Small or handheld devices with small screens, monochrome graphics, and limited bandwidth
print	Printers
projection	Projectors
screen	Computer screens
tty	Fixed-width devices like teletype machines and terminals
tv	Television-type devices with low resolution, color, and limited scrollability

Working with Different Media

- Style sheets cascade through the media types

```
<style type="text/css">  /* for all media */
  h1 {font-family: san-serif}
</style>
<style type="text/css" media="screen">
  h1 {color: red}
</style>
<style type="text/css" media="printer">
  h1 {color: black}
</style>
```

Working with Different Media
The @media rule

- It might be hard to maintain different style sheets
- You can use a single style sheet broken down into different sections for each media type

```
@media screen { body {font-size: 1em}    h1 {font-size: 2em} }
@media print  { body {font-size: 12pt}   h1 {font-size: 16pt} }
@media tv      { body {font-size: 16pt}   h1 {font-size: 24pt} }
@media handheld { body {font-size: 8pt} h1 {font-size: 12pt} }


@media screen, print, tv, handheld {
   h1 {font-family: san-serif}
}
```

**Single file with @media rules
vs.
Multiple style files for each media**

Working with Different Media
media groups

- CSS uses **media groups** to describe how different media devices render content
  - Continuous or paged
  - Visual, aural, or tactile
  - Grid (for character grid devices) or bitmap
  - Interactive (for devices that allow user interaction) or static (for devices that allow no interaction)

Media type	continuous/ paged	visual/aural/ tactile	grid/bitmap	interactive/ static
aural	continuous	aural	N/A	both
braille	continuous	tactile	grid	both
embossed	paged	tactile	grid	both
handheld	both	visual	both	both
print	paged	visual	bitmap	static
projection	paged	visual	bitmap	static
screen	continuous	visual	bitmap	both
tty	continuous	visual	grid	both
tv	both	visual, aural	bitmap	both

Save printtxt.css as print.css
Use print.css for paged visual media (print, projection)
Use scraps.css for continuous visual media (screen, tv, tty)

s a m p l e s . h t m

Linking to external style sheets for different media

```
<title>Samples from Online Scrapbooks</title>
<link href="print.css" rel="stylesheet" type="text/css" media="print, projection" />
<link href="scraps.css" rel="stylesheet" type="text/css" media="screen, tv, tty" />
```

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Embedded style sheets for different media

```
<style type="text/css" media="print, projection">
</style>

<style type="text/css" media="screen, tv, tty">
    .notes    {font-family: sans-serif; font-size: 8pt; color: brown;
               background-color: ivory; border: 3px inset rgb(212, 212, 212);
               width: 130px; height: 90px; overflow: auto}
    .notes p {margin: 5px}
    #note1    {position: absolute; left: 600px; top: 120px}
    #note2    {position: absolute; left: 170px; top: 400px}
    #note3    {position: absolute; left: 570px; top: 550px}
</style>
```

Hiding Elements

- CSS has two styles that you can use to keep an element from being displayed in the output: the `display` style (Tutorial 03) and the visibility style

  `visibility:` *type*

- The *type* attribute can be set to
  - visible (makes an element visible)
  - hidden (hides the element)
    - vs. display: none
  - collapse (for tables Tutorial 05)
  - inherit (default)

visibility: hidden

object is hidden but still is part of the page flow

display: none

object is hidden and is removed from the page flow
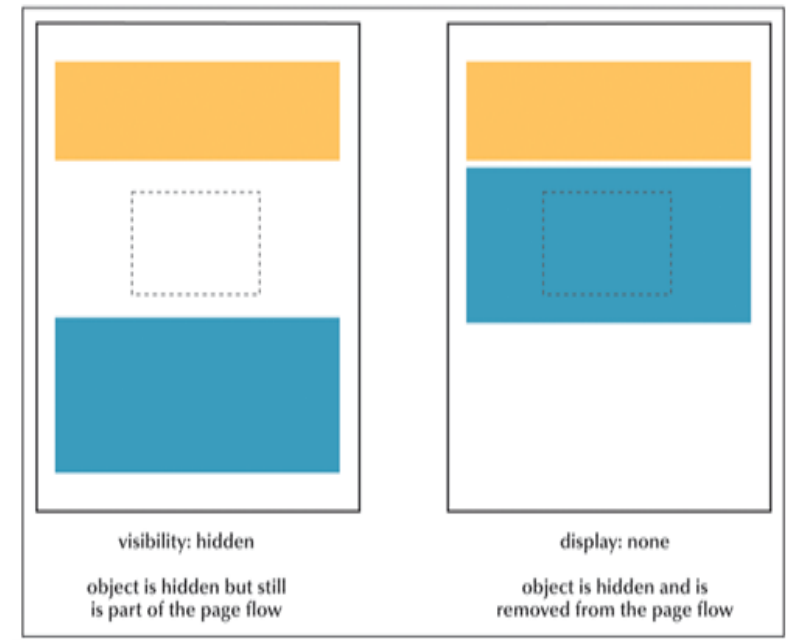
Hide head, links, address in printed pages…

Preview of the Samples page

Samples from Online Scrapbooks   Page 1 of 1

notes printed as a bulleted list

Samples from Online Scrapbooks

> Paste cut-out letters and words in your scrapbook to create a 3D effect. Online Scrapbooks sells professionally designed cut-out letters, words, and phrases for all occasions.

> Clippings, flyers, programs, and other memorabilia are valuable sources of information that can enhance your scrapbook pages. Make sure that any material is copied to acid-free paper. Newspaper clippings are especially susceptible to deterioration.

> Photographic cut-outs and textured backgrounds can add visual interest to your pages. See the online store for our wide variety of textured and embossed papers.

Can we print notes and image? Page breaks

Using the display:none style

```
#head, #links, address {display: none}
h1, h2, h3, h4, h5, h6 {font-family: sans-serif}
```

Setting the print styles for the callout notes

```
<style type="text/css" media="print, projection">
    .notes {display: list-item; list-style-image: url(bullet.jpg);
            font-family: sans-serif; font-size: 12pt; margin: 20px}
</style>
```

Using Print Styles

page box model

- CSS defines printed pages by extending the box model
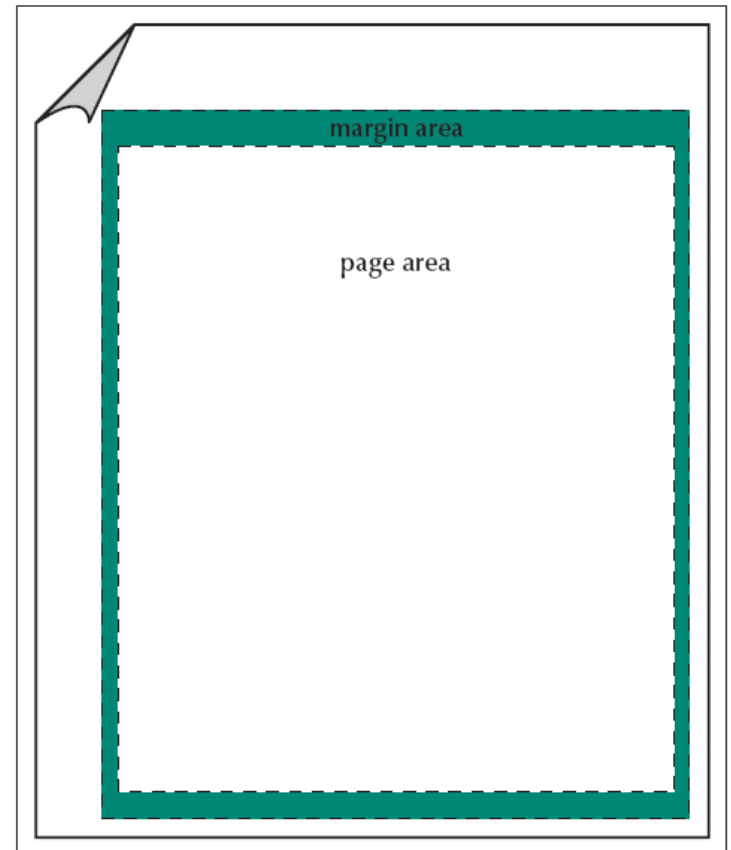
The page box

- The general rule to create and define a page box is:

  `@page {styles}`

  `@page {margin:5in}`

- Page box does not support all of the measurement units we used before (e.g., no em or ex)

- Usually use inches or cm

margin area

page area

Using Print Styles
page pseudo-classes and named classes

- Suppose we have several pages and we want to define different styles for different pages
  - Can be done using pseudo-classes (first, left, right)

  `@page:`*`pseudo-class {styles}`*

- To format specific pages other than the above pseudo-classes, you must create a page name with desired style

  `@page `*`name {styles}`*

  `@page larger_margin {margin: 10cm}`

- Then you can apply it to any block-level element in the page

  `selector` `{page: `*`name`*`}`

  `blockquote {page: larger_margin}`

Using Print Styles
Setting the page size

- Printed media can vary in size and orientation
- The size style allows the Web author to define the default dimensions and orientation of the printed page

```
size: width height orientation
```

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```
@page {size: 8.5in 11in landscape; margin: 1in}
```

Setting the print style with the @print rule

```
@page {size: 8.5in 11in portrait; margin: 0.5in}
#head, #links, address {display: none}
h1, h2, h3, h4, h5, h6 {font-family: sans-serif}
```

Working with Page Breaks

- When a document is sent to the printer, the printer decides the location of the page breaks unless that information is included as part of the print style

```
page-break-before: type

page-break-after: type

page-break-inside: type
```

- The *type* style attribute has the following values:
    - **Always**   **-- Avoid**
    - **Left**   **-- Right**
    - **Auto**
    - **Inherit**

```
h1 {page-break-before: always}
blockquote {  page-break-before: always;
              page-break-after: always}
```

Working with Page Breaks
preventing page break

- If you want to keep the printer inserting a page brake inside of an element, use

    ```
    page-break-inside: type
    ```

    `type` is auto, inherit, avoid

    ```
    blockquote {page-break-inside: avoid}
    ```

- If it is too big still there will be a page break…

Working with Page Breaks

- A **widow** occurs when only a few ending lines of an element appear at the top of a page

- An **orphan** is just the opposite: it occurs when only a few beginning lines of an element appear at the bottom of a page

- The styles to control the appearance of widows and orphans in the printout are:
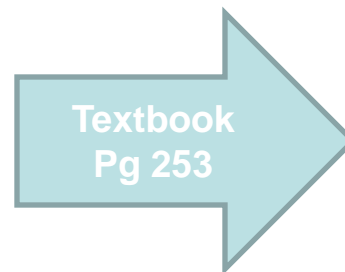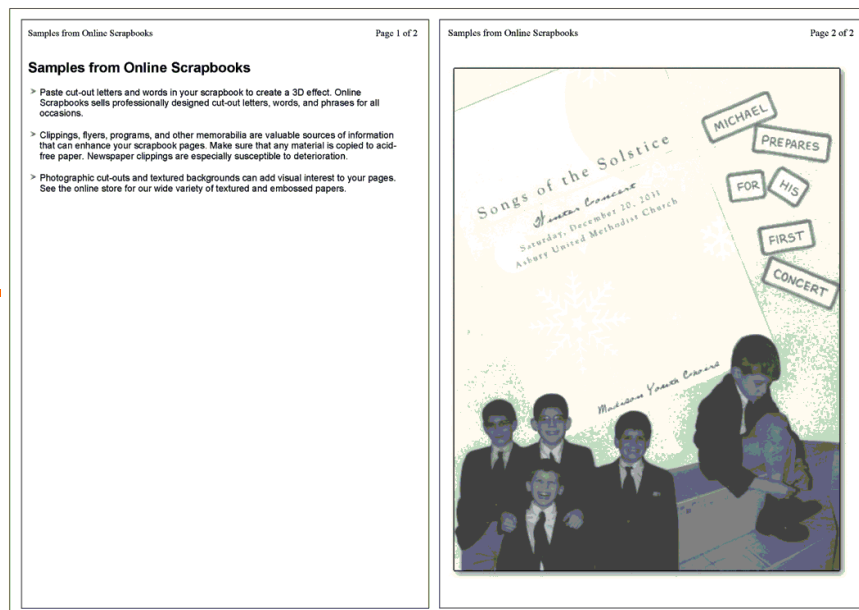
  `widow:` *value*

  `orphan:` *value*

  value is number of lines, default is 2

xxxx

xxx

xxxx

xxx

Final print.css style sheet

```
@page {size: 8.5in 11in portrait; margin: 0.5in}
#head, #links, address {display: none}
h1, h2, h3, h4, h5, h6 {font-family: sans-serif}

#sample_image         {page-break-before: always;
                       text-align: center}


#sample_image img {width: 7in; height: 9.1in}
```

Summary

- Worked with CSS selectors

- Created styles for lists

- Created and applied class styles

- Created a rollover effect

- Created a drop cap using a pseudo-element

- Managed page layout with CSS

- Worked with overflow and clipping styles

Summary

- Created stacked objects

- Applied styles to various media

- Hid elements from printing

- Created and applied printer styles

- Created and prohibited page breaks for printing