

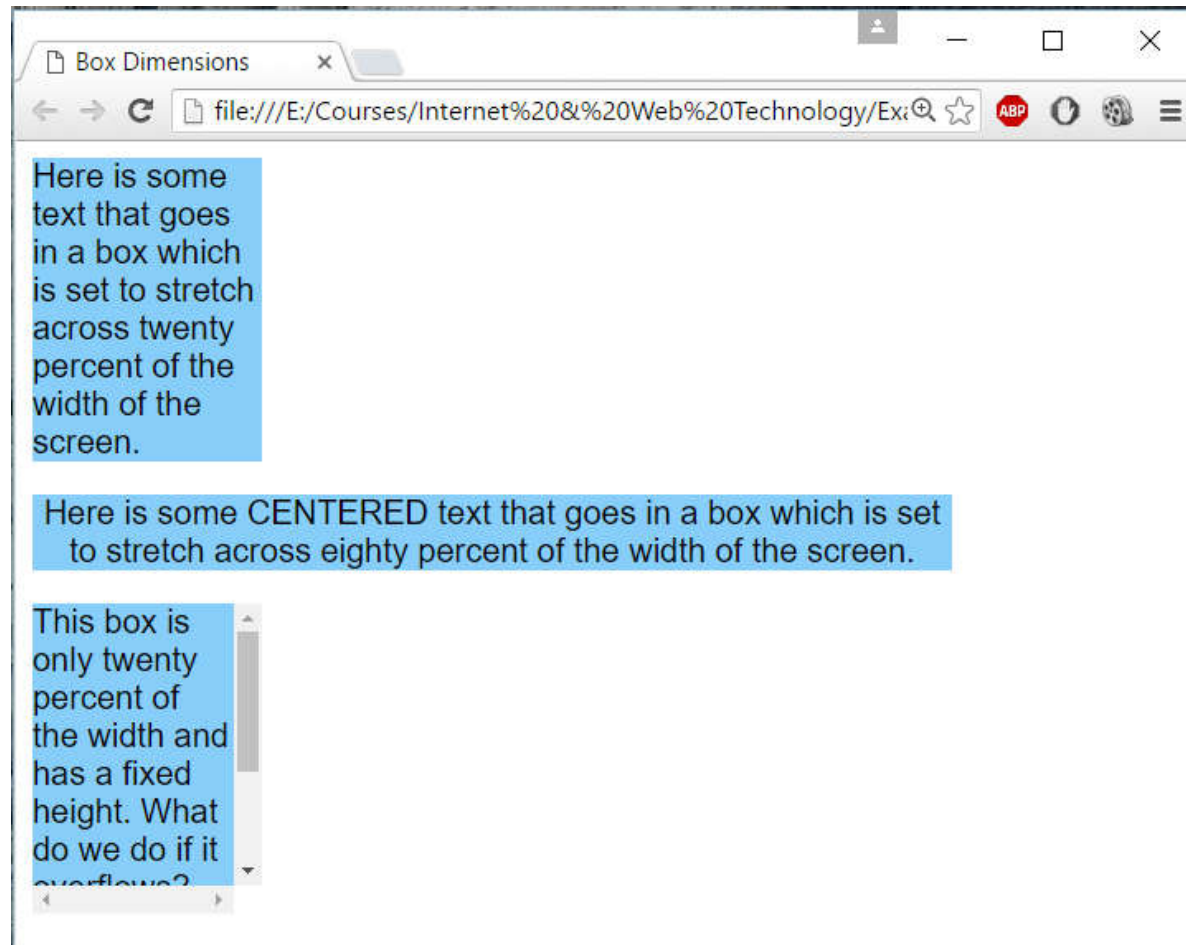
ITNB2123

INTERNET PROGRAMMING

Cascading Style Sheets

- Element Dimensions.
- Box Model and Text Flow.
- Drop-Down Menus.

Element Dimensions



Element Dimensions (Cont.)

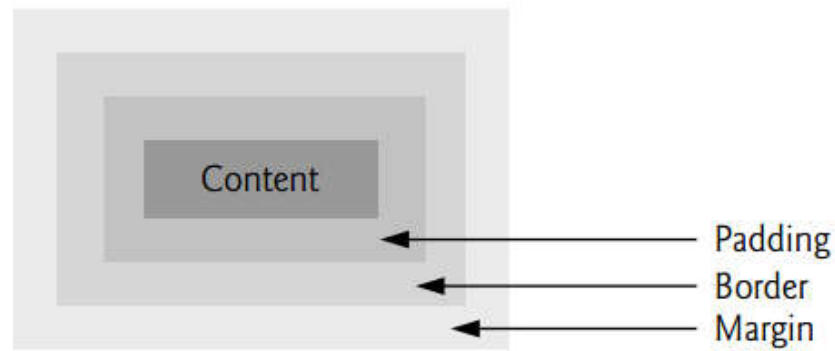
- In addition to positioning elements, CSS rules can specify the actual dimensions of each page element.
- Specifying the width and height of an Element: The inline style in line 13 illustrates how to set the width of an element on screen; here, we indicate that the *p* element should occupy 20 percent of the screen width. If not specified, the width will fit the size of the browser window. The height of an element can be set similarly, using the height property.
- text-align Property Most elements are left-aligned by default, but this alignment can be altered. Line 18 sets text in the element to be center aligned; other values for the text-align property include left and right.
- overflow Property and Scroll Bars. In the third p element, we specify a percentage width and a pixel height. One problem with setting both dimensions of an element is that the content inside the element can exceed the set boundaries, in which case the element is simply made large enough for all the content to fit. However, in line 22, we set the overflow property to scroll, a setting that adds scroll bars if the text overflows the boundaries.

Element Dimensions

```
1 <!DOCTYPE <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset = "utf-8">
5   <title>Box Dimensions</title>
6   <style type = "text/css">
7     p {          background-color: lightskyblue;
8                  margin-bottom: .5em;
9                  font-family: arial, helvetica, sans-serif; }
10    .width20 {    width:20%;}
11    .width80 {    width: 80%;
12                text-align: center;}
13    .scroll  {    width: 20%;
14                height: 150px;
15                overflow: scroll;}
16  </style>
17 </head>
18 <body>
19   <p class="width20">
20     Here is some text that goes in a box which is set to stretch across
21     twenty percent of the width of the screen.
22   </p>
23   <p class="width80">
24     Here is some CENTERED text that goes in a box which is set to stretch
25     across eighty percent of the width of the screen.
26   </p>
27   <p class="scroll">
28     This box is only twenty percent of the width and has a fixed height.
29     What do we do if it overflows? Set the overflow property to scroll!
30   </p>
31 </body>
32 </html>
```

Box Model and Text Flow

- All block-level HTML5 elements have a virtual box drawn around them, based on what is known as the box model. When the browser renders an element using the box model, the content is surrounded by padding, a border and a margin.

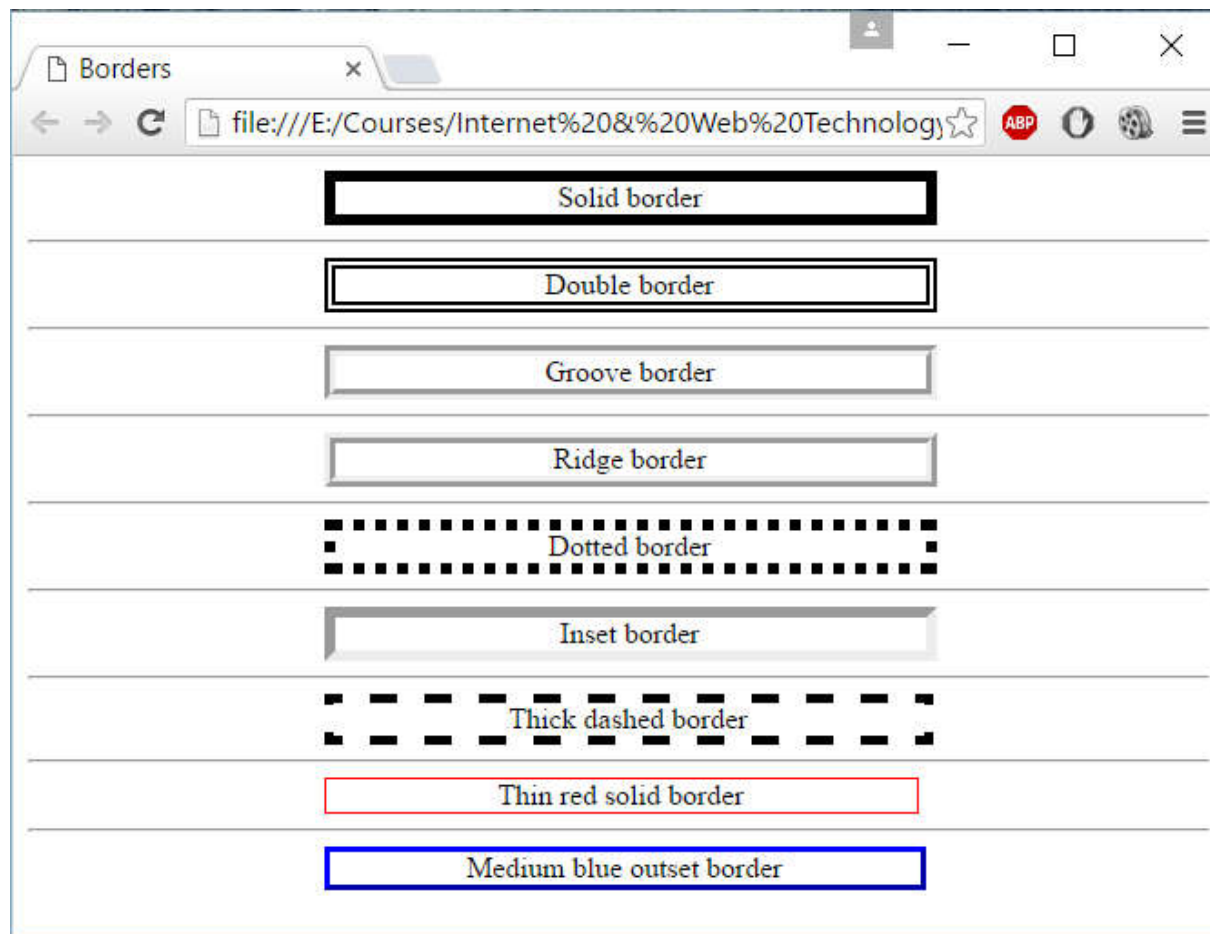


- CSS controls the border using three properties: border-width, border-color and border-style.

Box Model and Text Flow

- The `border-width` property may be set to any valid CSS length (e.g., em, ex, px) or to the predefined value of thin, medium or thick.
- The `border-color` property sets the color.
- The `border-style` options are none, hidden, dotted, dashed, solid, double, groove, ridge, inset and outset. Borders groove and ridge have opposite effects, as do inset and outset.
- When border-style is set to none, no border is rendered. Each border property may be set for an individual side of the box (e.g., border-top-style or border-left-color).

Box Model and Text Flow (1. Cont.)



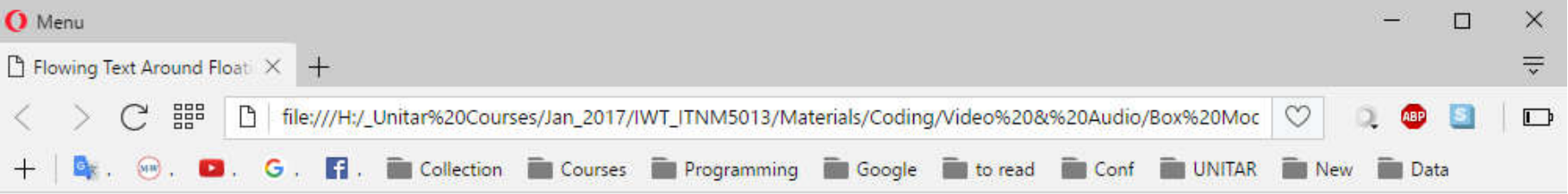
Box Model and Text Flow(1. Cont.)

```
1▼ div { text-align: center;
2      width: 50%;
3      position: relative;
4      left: 25%;
5      border-width: 6px; }
6
7 .thick { border-width: thick;}
8 .medium { border-width: medium;}
9 .thin { border-width: thin;}
10
11 .solid { border-style: solid;}
12 .double { border-style: double;}
13 .groove { border-style: groove;}
14 .ridge { border-style: ridge;}
15 .dotted { border-style: dotted;}
16 .inset { border-style: inset;}
17 .outset { border-style: outset;}
18 .dashed { border-style: dashed;}
19
20 .red { border-color: red;}
21 .blue { border-color: blue;}
```

Box Model and Text Flow (1)

```
1 <DOCTYPE <!DOCTYPE html>
2 <html>
3▼ <head>
4     <meta charset = "utf-8">
5     <title>Borders</title>
6     <link rel="stylesheet" href="BoxModel.css"><li></li>
7 </head>
8▼ <body>
9     <div class = "solid">Solid border</div><hr>
10    <div class = "double">Double border</div><hr>
11    <div class = "groove">Groove border</div><hr>
12    <div class = "ridge">Ridge border</div><hr>
13    <div class = "dotted">Dotted border</div><hr>
14    <div class = "inset">Inset border</div><hr>
15    <div class = "thick dashed">Thick dashed border</div><hr>
16    <div class = "thin red solid">Thin red solid border</div><hr>
17    <div class = "medium blue outset">Medium blue outset border</div>
18 </body>
19 </html>
```

Box Model and Text Flow (2. Cont.)



(One) All block-level HTML5 elements have a virtual box drawn around them, based on what is known as the box model. (Two) When the browser renders elements using the box model, the content of each element is surrounded by padding, a border and a margin. (Three) The border-width property may be set to any of the CSS lengths or to the predefined value of thin, medium or thick.

(Three) The border-styles available are none, hidden, dotted, dashed, solid, double, groove, ridge, inset and outset. (Four) The border-color property sets the color used for the border. (Five) The class attribute allows more than one class to be assigned to an element by separating each class name from the next with a space.

Box Model and Text Flow

Box Model and Text Flow

Box Model and Text Flow (2)

```
1  <!DOCTYPE html>
2  <html>
3      <head>
4          <meta charset = "utf-8">
5          <title>Flowing Text Around Floating Elements</title>
6          <link rel="stylesheet" href="Box Model_2.css">
7      </head>
8      <body>
9          <header>
10             <img src = "web1.jpg" width="100" height="150" alt = "Web">
11          </header>
12          <section>
13              <h1 class = "floated">Box Model and Text Flow</h1>
14              <p>
15                  (One) All block-level HTML5 elements have a virtual box drawn around them, based on what is known
16                  as the box model. (Two) When the browser renders elements using the box model, the
17                  content of each element is surrounded by padding, a border and a margin. (Three)
18                  The border-width property may be set to any of the CSS lengths or to the predefined
19                  value of thin, medium or thick.
20              </p>
21          </section>
22          <section>
23              <h1 class = "floated">Box Model and Text Flow</h1>
24              <p>
25                  (Three) The border-styles available are none, hidden, dotted, dashed,
26                  solid, double, groove, ridge, inset and outset. (Four) The border-color property
27                  sets the color used for the border. (Five) The class attribute allows more than one
28                  class to be assigned to an element by separating each class name from the next with a space.
29              </p>
30          </section>
31      </body>
32 </html>
```

Box Model and Text Flow (2. Cont.)

```
1 ▼ header { background-color: skyblue;
2           text-align: center;
3           font-family: arial, helvetica, sans-serif;
4           padding: .5em;}
5
6 section {
7         border: 1px solid skyblue;}
8
9 ▼ p      { text-align: justify;
10          font-family: verdana, geneva, sans-serif;
11          margin: .5em;}
12
13 h1      {
14         margin-top: 0px;}
15
16 ▼ .floated{ background-color: lightgrey;
17           font-size: 1.5em;
18           font-family: arial, helvetica, sans-serif;
19           padding: .2em;
20           margin-left: .5em;
21           margin-bottom: .5em;
22           float: right;
23           text-align: right;
24           width: 25%;
25           border: 5px solid red;}
```

Drop-Down Menus

- Drop-down menus are a good way to provide navigation links without using a lot of screen space.
- We've already seen the :hover pseudo-class used to change a link's style when the mouse hovers over it. We'll use this feature in a more advanced way to cause a menu to appear when the mouse hovers over a menu button.
- Another important property is display, which allows you to decide whether an element is rendered on the page or not. Possible values include block, inline and none. The block and inline values display the element as a block element or an inline element, while none stops the element from being rendered.

Drop-Down Menus

- Lines 28-39 create a *nav* element containing the text Menu and an unordered list (*ul*) of eight links that should appear in the drop-down menu.
- When the mouse cursor hovers over the *nav* element, the eight links appear below the menu.
- The drop-down menu functionality is located in the CSS3 code. Two lines define the drop-down functionality.
 - ❑ Line 15 sets display to none for any unordered list (*ul*) that's nested in a *nav*. This instructs the browser not to render the *ul*'s contents.
 - ❑ Line 19, which is similar to line 15, selects only *ul* elements nested in a *nav* element that currently has the mouse hovering over it. Setting display to block specifies that when the mouse is over the *nav*, the *ul* will be displayed as a block-level element.

Drop-Down Menus (Cont.)



Drop-Down Menus (Cont.)

```
1  <!DOCTYPE <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Drop-Down Menu</title>
5  </head>
6  <body>
7      <style type = "text/css">
8          body { font-family: arial, sans-serif }
9          nav { font-weight: bold;
10              color: white;
11              border: 5px solid royalblue;
12              text-align: center;
13              width: 30em;
14              background-color: royalblue;}
15          nav ul { display: none;
16                  list-style: none;
17                  margin: 0;
18                  padding: 0;}
19          nav:hover ul { display: block }
20          nav ul li { border-top: 5px solid royalblue;
21                      background-color: white;
22                      width: 30em;
23                      color: black;}
24          nav ul li:hover { background-color: powderblue; }
25          a { text-decoration: none;}
26      </style>
27  </body>
28      <nav>Internet and Web Technology
29          <ul>
30              <li><a href = "#">Introduction to Internet and Web Technology</a></li>
31              <li><a href = "#">Web Development Process</a></li>
32              <li><a href = "#">HTML</a></li>
33              <li><a href = "#">Cascading Style Sheet</a></li>
34              <li><a href = "#">Web Graphics and Multimedia</a></li>
35              <li><a href = "#">Client Side Scripting: JavaScript</a></li>
36              <li><a href = "#">Server Side Scripting: PHP/ASP.Net</a></li>
37              <li><a href = "#">Web Security</a></li>
38          </ul>
39      </nav>
40  </html>
```

Drop-Down Menus (Cont.)

```
1  <!DOCTYPE <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Drop-Down Menu</title>
5      <link rel="stylesheet" type="text/css" href="DropDown.css">
6  </head>
7  <body>
8      <nav>Internet and Web Technology
9          <ul>
10             <li><a href = "#">Introduction to Internet and Web Technology</a></li>
11             <li><a href = "#">Web Development Process</a></li>
12             <li><a href = "#">HTML</a></li>
13             <li><a href = "#">Cascading Style Sheet</a></li>
14             <li><a href = "#">Web Graphics and Multimedia</a></li>
15             <li><a href = "#">Client Side Scripting: JavaScript</a></li>
16             <li><a href = "#">Server Side Scripting: PHP/ASP.Net</a></li>
17             <li><a href = "#">Web Security</a></li>
18         </ul>
19     </nav>
20 </body>
21 </html>
```

Drop-Down Menus (Cont.)

```
1  body                {  font-family: arial, sans-serif }
2  nav                 {  font-weight: bold;
3                        color: white;
4                        border: 5px solid royalblue;
5                        text-align: center;
6                        width: 30em;
7                        background-color: royalblue;}
8  nav ul              {  display: none;
9                        list-style: none;
10                       margin: 0;
11                       padding: 0;}
12 nav:hover ul         {  display: block }
13 nav ul li:hover     {  background-color: white;}
14 a                   {  text-decoration: none;}
```

Video

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>Video/Canvas Demo</title>
5     <style type = "text/css">
6         video {
7             position: absolute;
8             top: 50%;
9             left: 50%;
10            margin: -150px 0 0 -300px;
11        }
12    </style>
13 </head>
14 <body>
15     <video width="600" height="300" poster="storm.jpg" controls="controls" preload="none">
16         <source src="Entrepreneur.mp4" type="video/mp4" />
17         Your browser does not support the video element.
18     </video>
19 </body>
20 </html>
```

Video (YouTube)

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>YouTube</title>
5 </head>
6 <body>
7   <iframe width="560" height="315" src="https://www.youtube.com/embed/I22Lf0xF0UE" frameborder="0"
8     allowfullscreen>
9 </body>
10 </html>
```

Audio

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Video/Canvas Demo</title>
5 </head>
6 <body>
7   <audio controls="controls">
8     <source src="storm.mp3" type="audio/mp3" />
9     Your browser does not support the audio element. Download the audio/video in
10    <a href="https://www.dropbox.com/s/sagi5eagvnlahk8/storm.mp3?dl=0">MP3</a>format.
11  </audio>
12 </body>
13 </html>
```