

# Objectives

- ◆ In this session, you will learn to:
  - ◆ Advanced properties of CSS
  - ◆ Properties of CSS3
  - ◆ Designing layout of website

# CSS Border

- ◇ Allow you to specify the style, width, and color of an element's border.
- ◇ Some border's properties:

Property	Description
<a href="#"><u>border</u></a>	Sets all the border properties in one declaration
<a href="#"><u>border-bottom</u></a>	Sets all the bottom border properties in one declaration
<a href="#"><u>border-bottom-color</u></a>	Sets the color of the bottom border
<a href="#"><u>border-bottom-style</u></a>	Sets the style of the bottom border
<a href="#"><u>border-bottom-width</u></a>	Sets the width of the bottom border
<a href="#"><u>border-color</u></a>	Sets the color of the four borders
<a href="#"><u>border-left</u></a>	Sets all the left border properties in one declaration
<a href="#"><u>border-left-color</u></a>	Sets the color of the left border
<a href="#"><u>border-left-style</u></a>	Sets the style of the left border
<a href="#"><u>border-left-width</u></a>	Sets the width of the left border
<a href="#"><u>border-radius</u></a>	Sets all the four border-*-radius properties for rounded corners
<a href="#"><u>border-right</u></a>	Sets all the right border properties in one declaration
<a href="#"><u>border-right-color</u></a>	Sets the color of the right border

# CSS Border

## Example:

```
<style>
p.dotted {border-style: dotted;}
p.dashed {border-style: dashed;}
p.solid {border-style: solid;}
p.double {border-style: double;}
p.groove {border-style: groove;}
p.ridge {border-style: ridge;}
p.inset {border-style: inset;}
p.outset {border-style: outset;}
p.none {border-style: none;}
p.hidden {border-style: hidden;}
p.mix {border-style: dotted dashed solid double;}
</style>
</head>
<body>
<p class="dotted">A dotted border.</p>
<p class="dashed">A dashed border.</p>
<p class="solid">A solid border.</p>
<p class="double">A double border.</p>
<p class="groove">A groove border.</p>
<p class="ridge">A ridge border.</p>
<p class="inset">An inset border.</p>
<p class="outset">An outset border.</p>
<p class="none">No border.</p>
<p class="hidden">A hidden border.</p>
<p class="mix">A mixed border.</p>
```

## Result:

A dotted border.

A dashed border.

A solid border.

A double border.

A groove border.

A ridge border.

An inset border.

An outset border.

No border.

A hidden border.

A mixed border.

# CSS Fonts

- ◇ Define the font family, boldness, size, and the style of a text.
- ◇ Some CSS font properties:

Property	Description
<u>font</u>	Sets all the font properties in one declaration
<u>font-family</u>	Specifies the font family for text
<u>font-size</u>	Specifies the font size of text
<u>font-style</u>	Specifies the font style for text
<u>font-variant</u>	Specifies whether or not a text should be displayed in a small-caps font
<u>font-weight</u>	Specifies the weight of a font

# CSS Fonts

## Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.a {
  font-style: normal;
}

p.b {
  font-style: italic;
}

p.c {
  font-style: oblique;
}
</style>
</head>
<body>

<p class="a">This is a paragraph, normal.</p>
<p class="b">This is a paragraph, italic.</p>
<p class="c">This is a paragraph, oblique.</p>

</body>
</html>
```

## Result:

This is a paragraph, normal.

*This is a paragraph, italic.*

*This is a paragraph, oblique.*

# CSS Text

## Some CSS Text Properties:

Property	Description
<u>color</u>	Sets the color of text
<u>direction</u>	Specifies the text direction/writing direction
<u>letter-spacing</u>	Increases or decreases the space between characters in a text
<u>line-height</u>	Sets the line height
<u>text-align</u>	Specifies the horizontal alignment of text
<u>text-decoration</u>	Specifies the decoration added to text
<u>text-indent</u>	Specifies the indentation of the first line in a text-block
<u>text-shadow</u>	Specifies the shadow effect added to text
<u>text-transform</u>	Controls the capitalization of text
<u>text-overflow</u>	Specifies how overflowed content that is not displayed should be signaled to the user



# CSS Text

## Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.uppercase {
  text-transform: uppercase;
}

p.lowercase {
  text-transform: lowercase;
}

p.capitalize {
  text-transform: capitalize;
}
</style>
</head>
<body>

<p class="uppercase">This is some text.</p>
<p class="lowercase">This is some text.</p>
<p class="capitalize">This is some text.</p>

</body>
</html>
```

## Result:

THIS IS SOME TEXT.

this is some text.

This Is Some Text.

# CSS Margins

- Are used to create space around elements, outside of any defined borders.
- With CSS, you have full control over the margins.  
There are properties for setting the margin for each side of an element (top, right, bottom, and left).

Property	Description
<u><a href="#">margin</a></u>	A shorthand property for setting the margin properties in one declaration
<u><a href="#">margin-bottom</a></u>	Sets the bottom margin of an element
<u><a href="#">margin-left</a></u>	Sets the left margin of an element
<u><a href="#">margin-right</a></u>	Sets the right margin of an element
<u><a href="#">margin-top</a></u>	Sets the top margin of an element



# CSS Margin

## Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
    border: 1px solid red;
    margin-left: 100px;
}
p.ex1 {
    margin-left: inherit;
}
</style>
</head>
<body>
<div>
<p class="ex1">This paragraph has an inherited left margin (from the
div element).</p>
</div>
</body>
</html>
```

## Result:

This paragraph has an inherited left margin (from the div element).

# CSS Padding

- Are used to generate space around an element's content, inside of any defined borders.
- With CSS, you have full control over the padding. There are properties for setting the padding for each side of an element (top, right, bottom, and left).

Property	Description
<u><a href="#">padding</a></u>	A shorthand property for setting all the padding properties in one declaration
<u><a href="#">padding-bottom</a></u>	Sets the bottom padding of an element
<u><a href="#">padding-left</a></u>	Sets the left padding of an element
<u><a href="#">padding-right</a></u>	Sets the right padding of an element
<u><a href="#">padding-top</a></u>	Sets the top padding of an element

# CSS Padding

Example:

```
<!DOCTYPE html>
<html>
<head>
<style>

div.ex2 {
    width: 300px;
    padding: 25px;
    box-sizing: border-box;
    background-color: lightblue;
}
</style>
</head>
<body>
<div class="ex2">Thực ra, cậu lật bánh burger đã quyết định chuyển đến bang Oregon và mở một cửa hàng bán burger bò rừng trên chiếc xe tải. Chẳng có gì nhầm lẫn ở đây cả – anh chàng này lật bánh burger để kiếm sống và anh ta có một chiếc bằng đại học danh giá nhất thế giới. Cậu ấy cực kỳ hạnh phúc và cũng kiếm được kha khá tiền.
</div>

</body>
</html>
```

Result:

Thực ra, cậu lật bánh burger đã quyết định chuyển đến bang Oregon và mở một cửa hàng bán burger bò rừng trên chiếc xe tải. Chẳng có gì nhầm lẫn ở đây cả – anh chàng này lật bánh burger để kiếm sống và anh ta có một chiếc bằng đại học danh giá nhất thế giới. Cậu ấy cực kỳ hạnh phúc và cũng kiếm được kha khá tiền.

# CSS Rounded Corners

## ◆ CSS Rounded Corners

- ◆ The CSS border-radius property defines the radius of an element's corners.

Property	Description
<u><a href="#">border-radius</a></u>	A shorthand property for setting all the four border-*-*-radius properties
<u><a href="#">border-top-left-radius</a></u>	Defines the shape of the border of the top-left corner
<u><a href="#">border-top-right-radius</a></u>	Defines the shape of the border of the top-right corner
<u><a href="#">border-bottom-right-radius</a></u>	Defines the shape of the border of the bottom-right corner
<u><a href="#">border-bottom-left-radius</a></u>	Defines the shape of the border of the bottom-left corner

# CSS Rounded Corners

Example:

```
<head>
<style>
#rcorners1 {
  border-radius: 15px 50px 30px 5px;
  background: #73AD21;
  padding: 20px;
  width: 200px;
  height: 150px;
}

#rcorners2 {
  border-radius: 15px 50px 30px;
  background: #73AD21;
  padding: 20px;
  width: 200px;
  height: 150px;
}
</style>
</head>
<body>
<p>Four values - border-radius: 15px 50px 30px 5px:</p>
<p id="rcorners1"></p>

<p>Three values - border-radius: 15px 50px 30px:</p>
<p id="rcorners2"></p>
</body>
</html>
```

Result:

Four values - border-radius: 15px 50px 30px 5px:



Three values - border-radius: 15px 50px 30px:



# CSS Rounded Corners

Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
img {
    border-radius: 50%;
}
</style>
</head>
<body>

<h2>Rounded Images</h2>
<p>Use the border-radius property to create circled images:</p>



</body>
</html>
```

Result:

## Rounded Images

Use the border-radius property to create circled images:





# CSS 3D Transforms

- CSS allows you to format your elements using 3D transformations.
- All 3D transforms properties:

Property	Description
<a href="#"><u>transform</u></a>	Applies a 2D or 3D transformation to an element
<a href="#"><u>transform-origin</u></a>	Allows you to change the position on transformed elements
<a href="#"><u>transform-style</u></a>	Specifies how nested elements are rendered in 3D space
<a href="#"><u>perspective</u></a>	Specifies the perspective on how 3D elements are viewed
<a href="#"><u>perspective-origin</u></a>	Specifies the bottom position of 3D elements
<a href="#"><u>backface-visibility</u></a>	Defines whether or not an element should be visible when not facing the screen

# CSS 3D Transforms

## 3D transforms method:

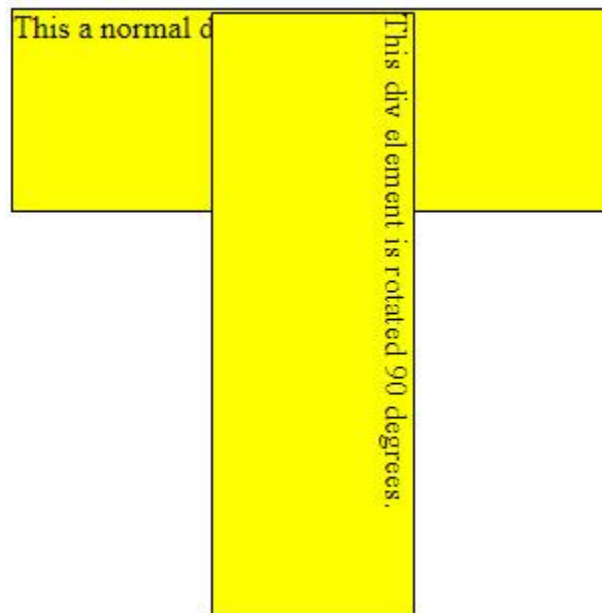
Function	Description
<code>matrix3d</code> <code>(n,n,n,n,n,n,n,n,n,n,n,n,n,n,n,n)</code>	Defines a 3D transformation, using a 4x4 matrix of 16 values
<code>translate3d(x,y,z)</code>	Defines a 3D translation
<code>translateX(x)</code>	Defines a 3D translation, using only the value for the X-axis
<code>translateY(y)</code>	Defines a 3D translation, using only the value for the Y-axis
<code>translateZ(z)</code>	Defines a 3D translation, using only the value for the Z-axis
<code>scale3d(x,y,z)</code>	Defines a 3D scale transformation
<code>scaleX(x)</code>	Defines a 3D scale transformation by giving a value for the X-axis
<code>scaleY(y)</code>	Defines a 3D scale transformation by giving a value for the Y-axis
<code>scaleZ(z)</code>	Defines a 3D scale transformation by giving a value for the Z-axis
<code>rotate3d(x,y,z,angle)</code>	Defines a 3D rotation
<code>rotateX(angle)</code>	Defines a 3D rotation along the X-axis
<code>rotateY(angle)</code>	Defines a 3D rotation along the Y-axis
<code>rotateZ(angle)</code>	Defines a 3D rotation along the Z-axis
<code>perspective(n)</code>	Defines a perspective view for a 3D transformed element

# CSS 3D Transforms

Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
  width: 300px;
  height: 100px;
  background-color: yellow;
  border: 1px solid black;
}
#myDiv {
  -webkit-transform: rotateZ(90deg); /* Safari */
  transform: rotateZ(90deg); /* Standard syntax */
}
</style>
</head>
<body>
<div>
This a normal div element.
</div>
<div id="myDiv">
This div element is rotated 90 degrees.
</div>
</body>
</html>
```

Result:



# CSS Shadow Effects

- With CSS you can add shadow to text and to elements.
- CSS shadow properties:

Property	Description
<u><a href="#">box-shadow</a></u>	Adds one or more shadows to an element
<u><a href="#">text-shadow</a></u>	Adds one or more shadows to a text

# CSS Shadow Effects

Example:

Result:

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: white;
  text-shadow: 2px 2px 4px #000000;
}
</style>
</head>
<body>

<h1>Text-shadow effect!</h1>

</body>
</html>
```

Text-shadow effect!

# Positioning HTML Elements

- ◇ CSS positioning properties:
  - ◇ Are used to control the placement of elements on a Web page.
  - ◇ Can be classified into the following categories:
    - ◇ position
    - ◇ float
- ◇ The position property is used to position an element on a Web page using the following positioning methods:
  - ◇ Static
  - ◇ Fixed
  - ◇ Relative
  - ◇ Absolute



# Positioning HTML Elements (Contd.)

## ◇ The float property:

- ◇ Is used to place HTML elements to the left or right margin, in relation to other elements.
- ◇ Allows you to wrap the HTML elements around the floated element.
- ◇ Can be specified by using the following syntax:

float: left|right|none

- ## ◇ The following embedded Notepad file contains the code to show the use of float property:



Float\_Property

# Positioning HTML Elements (Contd.)

```
img {  
  float: right;  
}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac...



```
img {  
  float: left;  
}
```



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac...

# Positioning HTML Elements (Contd.)

- ◇ The clear property:

- ◇ Is used to turn off the float effect on HTML elements.

- ◇ Can be specified by using the following syntax:

clear: both | left | right;

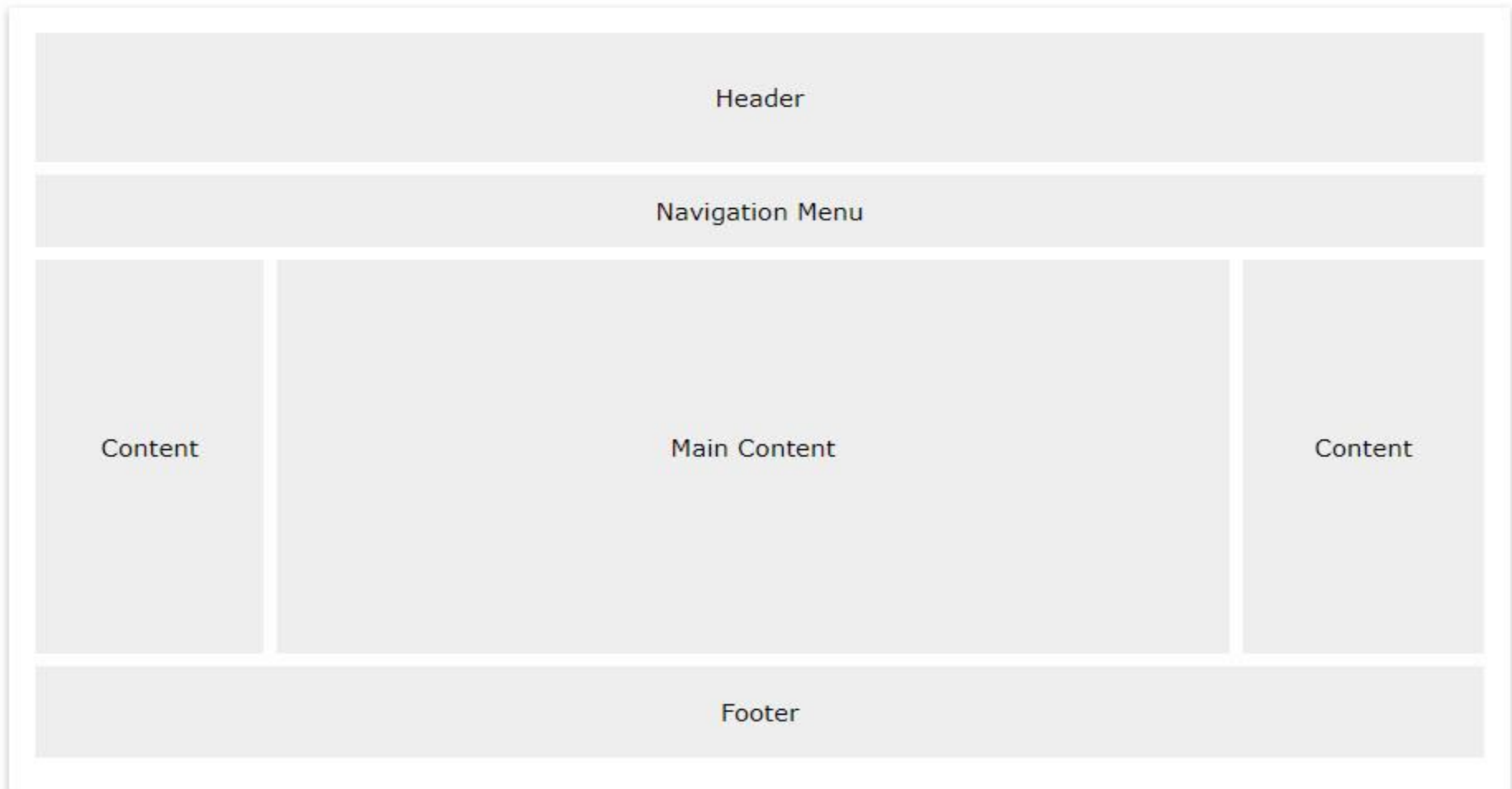
- ◇ The following embedded Notepad file contains the code to show the use of clear property:



Clear\_Property

# Layout

A typical layout of a website



◆ Demo designing layout web page by using CSS

# Summary

- ◆ Advanced properties of CSS
- ◆ Properties of CSS3
- ◆ Designing layout of website