CSS – Unit–II

CSS Properties & Attributes

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Containt	Module
•Text Properties & Attributes •Font Properties •CSS Padding •CSS Color •List Properties •CSS Posotioning •Table Properties and Attributes	2

CSS Text

Text Color

- The color property is used to set the color of the text.
- With CSS, a color is most often specified by:
  - a HEX value - like "#ff0000"
  - an RGB value - like "rgb(255,0,0)"
  - a color name - like “red”
- The default color for a page is defined in the body selector.
- **Example:**

```
body {color:blue;}
h1 {color:#00ff00;}
h2 {color:rgb(255,0,0);}
```

CSS Text

Text Alignment

The text-align property is used to set the horizontal alignment of a text. Text can be centered, or aligned to the left or right, or justified.

- When text-align is set to "justify", each line is stretched so that every line has equal width, and the left and right margins are straight (like in magazines and newspapers).
- **Example**

```
h1 {text-align:center;}
p.date {text-align:right;}
p.main {text-align:justify;}
```

CSS Text

钠 **Text Decoration**

- The text-decoration property is used to set or remove decorations from text.
- The text-decoration property is mostly used to remove underlines from links for design purposes:
- **Example:** a {text-decoration:none;}

It can also be used to decorate text:

Example:

```
h1 {text-decoration:overline;}
    h2 {text-decoration:line-through;}
    h3 {text-decoration:underline;}
    h4 {text-decoration:blink;}
```

CSS Text

- **Text Transformation**
- The text-transform property is used to specify uppercase and lowercase letters in a text.
- It can be used to turn everything into uppercase or lowercase letters, or capitalize the first letter of each word.
- **Example:**

```
p{text-transform:uppercase;}
p{text-transform:lowercase;}
p{text-transform:capitalize;}
```

CSS Text

Text Indent

- The text-Indent property is used to specify indents of the first line.
- The value of indents should be in either px, in or %

- **Example:**

```
p{text-indent: 1.5in;}
p{text-indent: 10%;}
p{text-indent: 50px;}
```

CSS Text

Text Vertical align

- The text-vertical align property is used to specify vertical position.
- The value for Vertical align are Baseline, sub, super, top, text-top, middle, bottom, text-bottom, percentage

- **Example:**

```
p{vertical-align:top;}
p{vertical-align:bottom;}
```

CSS Font

- CSS font properties define the font family, boldness, size, and the style of a text.
- **Difference Between Serif and Sans-serif Fonts:**

钠CSS Font Families

- In CSS, there are two types of font family names:
  - **generic family -** a group of font families with a similar look (like "Serif" or "Monospace")
  - **font family -** a specific font family (like "Times New Roman" or "Arial")

CSS Font (Contd…)

Generic family	Font family	Description
Serif	Times New Roman Georgia	Serif fonts have small lines at the ends on some characters
Sans-serif	Arial Verdana	"Sans" means without - these fonts do not have the lines at the ends of characters
Monospace	Courier New Lucida Console	All monospace characters have the same width

CSS Font (Contd…)

钠 **Font Family**

• The font family of a text is set with the font-family property.

• The font-family property should hold several font names as a "fallback" system. If the browser does not support the first font, it tries the next font.

More than one font family is specified in a comma-separated list:

Example:

```
p{font-family:"Times New Roman", Times, serif;}
```

CSS Font (Contd…)

Font Style

- The font-style property is mostly used to specify italic text.
- This property has three values:
  - normal - The text is shown normally
  - italic - The text is shown in italics
  - oblique - The text is "leaning”
- **Example:**

```
p.normal {font-style:normal;}
p.italic {font-style:italic;}
p.oblique {font-style:oblique;}
```

CSS Font (Contd…)

Font Size

- The font-size property sets the size of the text.
- Being able to manage the text size is important in web design. However, you should not use font size adjustments to make paragraphs look like headings, or headings look like paragraphs.
- Always use the proper HTML tags, like <h1> - <h6> for headings and <p> for paragraphs.
- The font-size value can be an **absolute or relative size**.

钠 **Absolute size:**

  - Sets the text to a specified size
  - Does not allow a user to change the text size in all browsers (bad for accessibility reasons)
  - Absolute size is useful when the physical size of the output is known

CSS Font (Contd…)

钠**Relative size:**

- Sets the size relative to surrounding elements
- Allows a user to change the text size in browsers.

CSS Font (Contd…)

Set Font Size With Pixels

- Setting the text size with pixels, gives you full control over the text size:
- **Example:**

```
h1 {font-size:40px;}
h2 {font-size:30px;}
p {font-size:14px;}
```

- The example above allows Firefox, Chrome, and Safari to resize the text, **but not Internet Explorer**.
- The text can be resized in all browsers using the zoom tool (however, this resizes the entire page, not just the text)

CSS Font (Contd…)

鏮Set Font Size With Em

- To avoid the resizing problem with Internet Explorer, many developers use em instead of pixels.
- The em size unit is recommended by the W3C.
- 1em is equal to the current font size. The default text size in browsers is 16px. So, the default size of 1em is 16px.
- The size can be calculated from pixels to em using this formula: *pixels*/16=*em*
- **Example:** h1 {font-size:2.5em;} /* 40px/16=2.5em */
  h2 {font-size:1.875em;} /* 30px/16=1.875em */
  p {font-size:0.875em;} /* 14px/16=0.875em */
- With the em size, it is possible to adjust the text size in all browsers.

CSS Font (Contd…)

- Unfortunately, there is still a problem with IE. When resizing the text, it becomes larger than it should when made larger, and smaller than it should when made smaller.

Use a Combination of Percent and Em

- The solution that works in all browsers, is to set a default font-size in percent for the body element:
- **Example:**

```
body {font-size:100%;}
h1 {font-size:2.5em;}
h2 {font-size:1.875em;}
p {font-size:0.875em;}
```

CSS Font (Contd…)

Set Font Weight

- The font-weight property specifies the weight of a font:
- **Example:**

```
p.normal {
        font-weight: normal;
    }

p.thick {
        font-weight: bold;
    }
```

CSS Font (Contd…)

Set Font Variant

- The font-variant property specifies whether or not a text should be displayed in a small-caps font.
- In a small-caps font, all lowercase letters are converted to uppercase letters. However, the converted uppercase letters appears in a smaller font size than the original uppercase letters in the text.
- **Example:**

```
p.normal { font-variant: normal; }

p.small {font-variant: small-caps;}
```

CSS Padding Properties

- The CSS padding properties are used to generate space around content.
- The padding properties set the size of the white space between the element content and the element border.
- There are CSS properties for setting the padding for each side of an element (top, right, bottom, and left):
  - padding-top
  - padding-right
  - padding-bottom
  - padding-left

CSS Padding Properties

- The CSS padding properties define the white space between the element content and the element border.

- All the padding properties can have the following values:

  - **length -** specifies a padding in px, pt, cm, etc.
  - **% -** specifies a padding in % of the width of the containing element
  - **inherit -** specifies that the padding should be inherited from the parent element

- The following example sets different padding for all four sides of a <p> element:

```
p {
    padding-top: 50px;
    padding-right: 30px;
    padding-bottom: 50px;
    padding-left: 80px;
}
```

CSS Padding – Shorthand Property

- To shorten the code, it is possible to specify all the padding properties in one property.
- Example:

```
p {
    padding: 50px 30px 50px 80px;
}
```

- If the padding property has four values:
  - **Eg.**: padding: 25px 50px 75px 100px;
  - top padding is 25px
  - right padding is 50px
  - bottom padding is 75px
  - left padding is 100px

CSS Colors

- Colors are displayed combining RED, GREEN, and BLUE light.
- CSS colors are defined using a hexadecimal (HEX) notation for the combination of Red, Green, and Blue color values (RGB).
- The lowest value that can be given to one of the light sources is 0 (HEX 00). The highest value is 255 (HEX FF).
- HEX values are written as 3 double digit numbers, starting with a # sign.

CSS Colors – Table

Color	Color HEX	Color RGB
	#000000	rgb(0,0,0)
	#FF0000	rgb(255,0,0)
	#00FF00	rgb(0,255,0)
	#0000FF	rgb(0,0,255)
	#FFFF00	rgb(255,255,0)
	#00FFFF	rgb(0,255,255)
	#FF00FF	rgb(255,0,255)
	#C0C0C0	rgb(192,192,192)
	#FFFFFF	rgb(255,255,255)

CSS Lists

- The CSS list properties allow you to:
- Set different list item markers for ordered lists
- Set different list item markers for unordered lists
- Set an image as the list item marker

鏸List

- In HTML, there are two types of lists:
- unordered lists - the list items are marked with bullets
- ordered lists - the list items are marked with numbers or letters
- With CSS, lists can be styled further, and images can be used as the list item marker.

CSS Lists (Contd…)

Different List Item Markers

- The type of list item marker is specified with the list-style-type property:
- **Example:**

```
ul.a {list-style-type: circle;}
ul.b {list-style-type: square;}
ol.c {list-style-type: upper-roman;}
ol.d {list-style-type: lower-alpha;}
```

- Some of the values are for unordered lists, and some for ordered lists.

An Image as The List Item Marker

- To specify an image as the list item marker, use the list-style-image property.
- **Example:** ul { list-style-image: url('sqpurple.gif'); }

CSS Position Property

- The position property specifies the type of positioning method used for an element (static, relative, absolute or fixed).
- There are four different position values:
  - static
  - relative
  - fixed
  - absolute

- Elements are then positioned using the top, bottom, left, and right properties.
- However, these properties will not work unless the position property is set first. They also work differently depending on the position value.

CSS Position Property

- CSS Syntax:
  position: static|absolute|fixed|relative|;
- Example:
  - How to position an element relative to its normal position:

```
h2.pos_left {
    position: relative;
    left: -20px;     }

h2.pos_right {
    position: relative;
    left: 20px;
}
```

CSS Position Property

- **position: static:**
- HTML elements are positioned static by default.
- Static positioned elements are not affected by the top, bottom, left, and right properties.
- An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:
- Example

```
div.static {
    position: static;
    border: 3px solid #73AD21;
}
```

CSS Position Property

- **position: relative:**
- An element with position: relative; is positioned relative to its normal position.
- Setting the top, right, bottom, and left properties of a relatively–positioned element will cause it to be adjusted away from its normal position.
- Other content will not be adjusted to fit into any gap left by the element.
- Example

```
div.relative {
    position: relative;
    left: 30px;
    border: 3px solid #73AD21;
}
```

CSS Position Property

•**position - fixed:**

•An element with position: fixed; is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled.

•The top, right, bottom, and left properties are used to position the element.

•A fixed element does not leave a gap in the page where it would normally have been located.

•Example:

```
div.fixed {
    position: fixed;
    bottom: 0;        right: 0;
    width: 300px;        border: 3px solid #73AD21;
}
```

CSS Position Property

•position - absolute:

•An element with position: absolute; is positioned relative to the nearest positioned ancestor, instead of positioned relative to the viewport, like fixed.

•However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.

•Example:

```
div.absolute { position: absolute;
    top: 80px;         right: 0;
    width: 200px;   height: 100px;
    border: 3px solid #73AD21;    }
```

CSS Tables

鏑Table Borders

- To specify table borders in CSS, use the border property.
- The example below specifies a black border for table, th, and td elements:
- **Example:**

```
table, th, td {   border: 1px solid black;   }
```

- **Collapse Borders**
- The border-collapse property sets whether the table borders are collapsed into a single border or separated:
- **Example:**

```
Table {  border-collapse:collapse;  }
table,th, td  {  border: 1px solid black;  }
```

CSS Tables (Contd…)

Table Width and Height

- Width and height of a table is defined by the width and height properties.
- The example below sets the width of the table to 100%, and the height of the th elements to 50px:
- **Example:**

```
table { width:100%;  }
th  {  height:50px;  }
```

Table Text Alignment

- The text in a table is aligned with the text-align and vertical-align properties.
- The text-align property sets the horizontal alignment, like left, right, or center:
- **Example:** td { text-align:right; }

CSS Tables (Contd…)

- The vertical-align property sets the vertical alignment, like top, bottom, or middle:
- **Example:** td{ height:50px;
  vertical-align:bottom; }

Table Padding

- To control the space between the border and content in a table, use the padding property on td and th elements:
- **Example:** td { padding:15px; }

Table Color

- The example below specifies the color of the borders, and the text and background color of th elements:
- **Example:**

  table, td, th { border:1px solid green; }
  th { background-color:green; color:white; }

CSS Background

- CSS background properties are used to define the background effects of an element.
- CSS properties used for background effects:
  - background-color
  - background-image
  - background-repeat
  - background-attachment
  - background-position

鏮Background Color

- The background-color property specifies the background color of an element.
- The background color of a page is defined in the body selector:
- **Example:** body {background-color:#b0c4de;}

CSS Background (Contd…)

- With CSS, a color is most often specified by:
  - a HEX value - like "#ff0000"
  - an RGB value - like "rgb(255,0,0)"
  - a color name - like “red”
- In the example below, the h1, p, and div elements have different background colors:
- **Example:**

```
h1 {background-color:#6495ed;}
p {background-color:#e0ffff;}
div {background-color:#b0c4de;}
```

鏮Background Image

- The background-image property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.

CSS Background (Contd…)

- The background image for a page can be set like this:
- **Example:**

```
body {background-image:url('paper.gif');}
```

钠Background Image - Repeat Horizontally or Vertically

- By default, the background-image property repeats an image both horizontally and vertically.
- Some images should be repeated only horizontally or vertically, or they will look strange, like this:
- **Example:**

```
body
{
    background-image:url('gradient2.png');
}
```

CSS Background (Contd…)

- If the image is repeated only horizontally (repeat-x), the background will look better:
- **Example:** body {
  background-image:url('gradient2.png');
  background-repeat:repeat-x; }

钠**Background Image - Set position and no-repeat**

- Showing the image only once is specified by the background-repeat property:
- **Example:** body {
  background-image:url('img_tree.png');
  background-repeat:no-repeat; }
- In the example above, the background image is shown in the same place as the text. We want to change the position of the image, so that it does not disturb the text too much.

CSS Background (Contd…)

- The position of the image is specified by the background-position property:
- **Example**

```
body   {
        background-image:url('img_tree.png');
        background-repeat:no-repeat;
        background-position:right top;     }
```

钠**Background - Shorthand property**

- To shorten the code, it is also possible to specify all the properties in one single property. This is called a shorthand property.
- The shorthand property for background is simply "background":
- **Example:**

```
body {background:#ffffff url('img_tree.png') no-repeat right top;}
```

CSS Background (Contd…)

- When using the shorthand property the order of the property values are:
  - background-color
  - background-image
  - background-repeat
  - background-attachment
  - background-position
- It does not matter if one of the property values is missing, as long as the ones that are present are in this order.

CSS Links

- Links can be styled in different ways.
- **Styling Links**
- Links can be styled with any CSS property (e.g. color, font-family, background, etc.).
- Special for links are that they can be styled differently depending on what state they are in.
- The four links states are:
  - a:link - a normal, unvisited link
  - a:visited - a link the user has visited
  - a:hover - a link when the user mouses over it
  - a:active - a link the moment it is clicked
- **Example:**

```
a:link {color:#FF0000;}      /* unvisited link */
a:visited {color:#00FF00;}  /* visited link */
a:hover {color:#FF00FF;}  /* mouse over link */
a:active {color:#0000FF;}  /* selected link */
```

CSS Links (Contd…)

- **Common Link Styles**
- In the example above the link changes color depending on what state it is in.
- Lets go through some of the other common ways to style links:
- **Text Decoration**
- The text-decoration property is mostly used to remove underlines from links:
- **Example:**

```
a:link {text-decoration:none;}
a:visited {text-decoration:none;}
a:hover {text-decoration:underline;}
a:active {text-decoration:underline;}
```

CSS Links (Contd…)

- **Background Color**
- The background-color property specifies the background color for links:
- **Example:**

```
a:link {background-color:#B2FF99;}
a:visited {background-color:#FFFF85;}
a:hover {background-color:#FF704D;}
a:active {background-color:#FF704D;}
```