

Unit 3

CSS3 & Bootstrap

Unit 3 Content

- Creating Style Sheet ,
- CSS Properties , CSS Styling(Background, Text Format, Controlling Fonts),
- Working with block elements and objects ,
- Working with Lists and Tables , CSS Id and Class, Box Model (Introduction,Borderproperties,PaddingProperties,Marginproperties) ,
- CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align, Pseudo class, Navigation Bar, Image Sprites, Attribute sector),
- CSS Color, Creating page Layout and Site,

Bootstrap:

- Introduction, Bootstrap grid system,
- Bootstrap Components..

Unit 3 Objective

Objective of Unit 3:

- To learn about web development strategies with Creating style sheet, Creating Properties
- To understand the basic concepts to develop the Working with block elements and objects.
- To understand Bootstrapping and Bootstrapping Components.
- To understand to register a domain and maintain CSS Style Sheet.

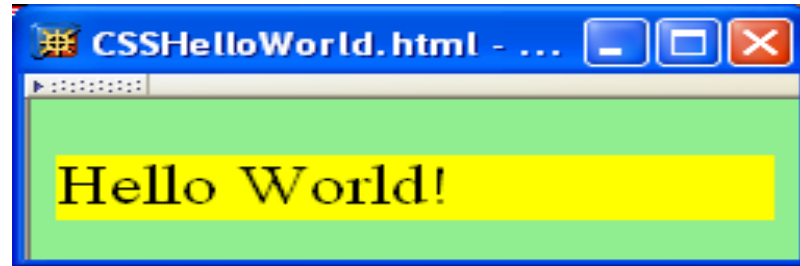
Topic Objective/Outcome

Objective of the above topics:

- To get the knowledge about the CSS Style and Tools.
- To know how to CSS with Bootstrapping Process.
- To understand the components and their functionalities of CSS Advanced Grouping, dimensions, display.
- To know the web standards to develop a website according to the CSS Pseudo class and image.

Concept of CSS 3: Creating Style Sheet

- Cascading Style Sheets ([CSS](#))
 - Applies to (X)HTML as well as XML documents in general
 - A styled HTML document. .



produced by the style sheet style1.css:

```
body { background-color:lime }  
p    { font-size:x-large; background-color:yellow }
```

Concept of CSS 3: Creating Style Sheet

```
<!DOCTYPE html
  PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>
      CSSHelloWorld.html
    </title>
    <link rel="stylesheet" type="text/css" href="style1.css"
          title="Style 1" />
    <link rel="alternate stylesheet" type="text/css" href="style2.css"
          title="Style 2" />
  </head>
  <body>
    <p>
      Hello World!
    </p>
  </body>
</html>
```

Concept of CSS 3: Creating Style Sheet

```
<!DOCTYPE html
    PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>
      CSSHelloWorld.html
    </title>
    <link rel="stylesheet" type="text/css" href="style1.css"
          title="Style 1" />
    <link rel="alternate stylesheet" type="text/css" href="style2.css"
          title="Style 2" />
  </head>
  <body>
    <p>
      Hello World!
    </p>
  </body>
</html>
```

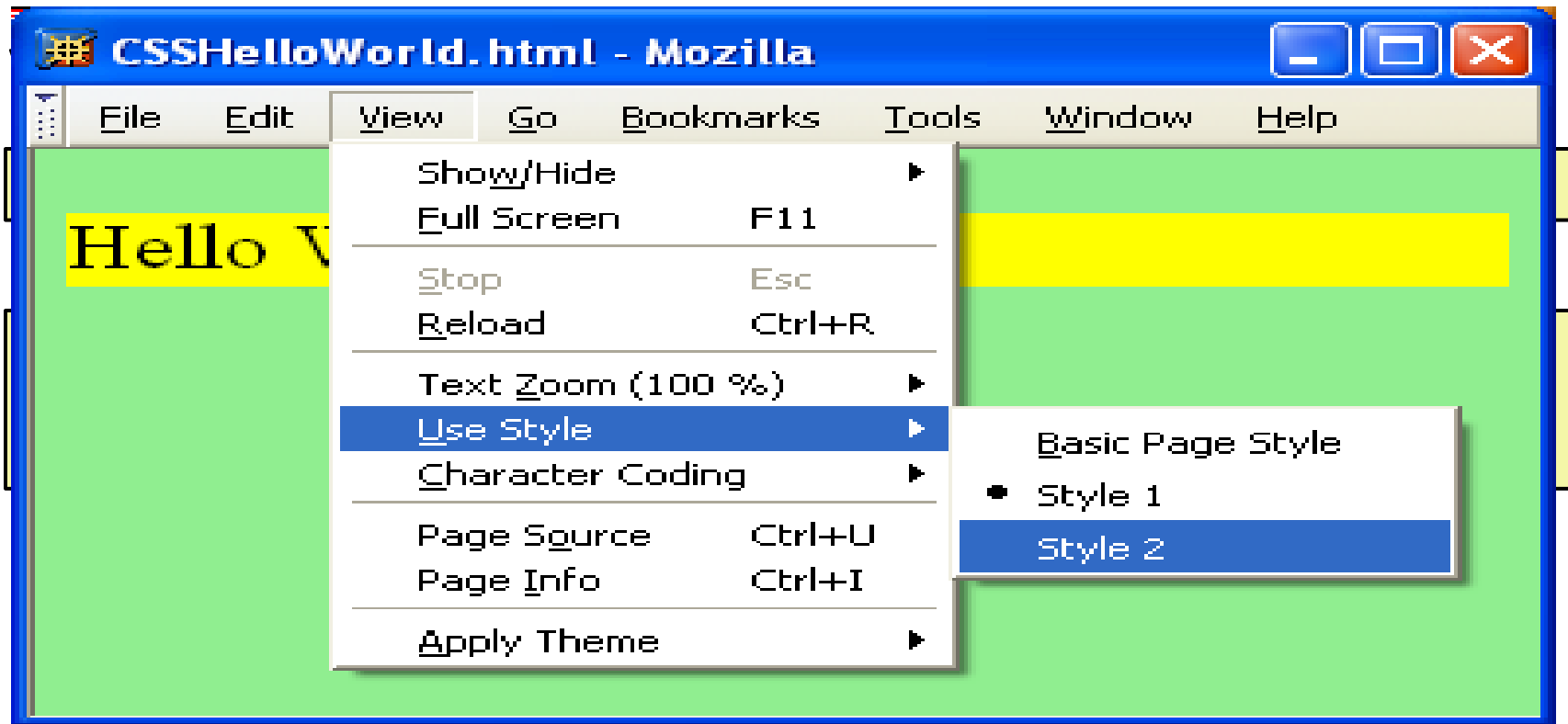
Concept of CSS 3: Creating Style Sheet

```
<!DOCTYPE html
    PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>
      CSSHelloWorld.html
    </title>
    <link rel="stylesheet" type="text/css" href="style1.css"
          title="Style 1" />
    <link rel="alternate stylesheet" type="text/css" href="style2.css"
          title="Style 2" />
  </head>
  <body>
    <p>
      Hello World!
    </p>
  </body>
</html>
```


Concept of CSS 3: Creating Style Sheet

```
<!DOCTYPE html
    PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>
      CSSHelloWorld.html
    </title>
    <link rel="stylesheet" type="text/css" href="style1.css"
          title="Style 1" />
    <link rel="alternate stylesheet" type="text/css" href="style2.css"
          title="Style 2" />
  </head>
  <body>
    <p>
      Hello World!
    </p>
  </body>
</html>
```

Concept of CSS 3: Creating Style Shee



- Note that alternate, user selectable style is not widely supported: firefox 3 and IE 8 do, but IE 6 IE 7 and chrome don't.

Concept of CSS 3: Creating Style Sheet

A styled HTML document



- produced by the style sheet style2.css

```
p { font-size:smaller; letter-spacing:1em }
```

Note that alternate, user selectable style is not widely supported: firefox 3 and IE 8 do, but IE 6, IE 7 and Chrome don't.

Concept of CSS 3: Creating Style Sheet

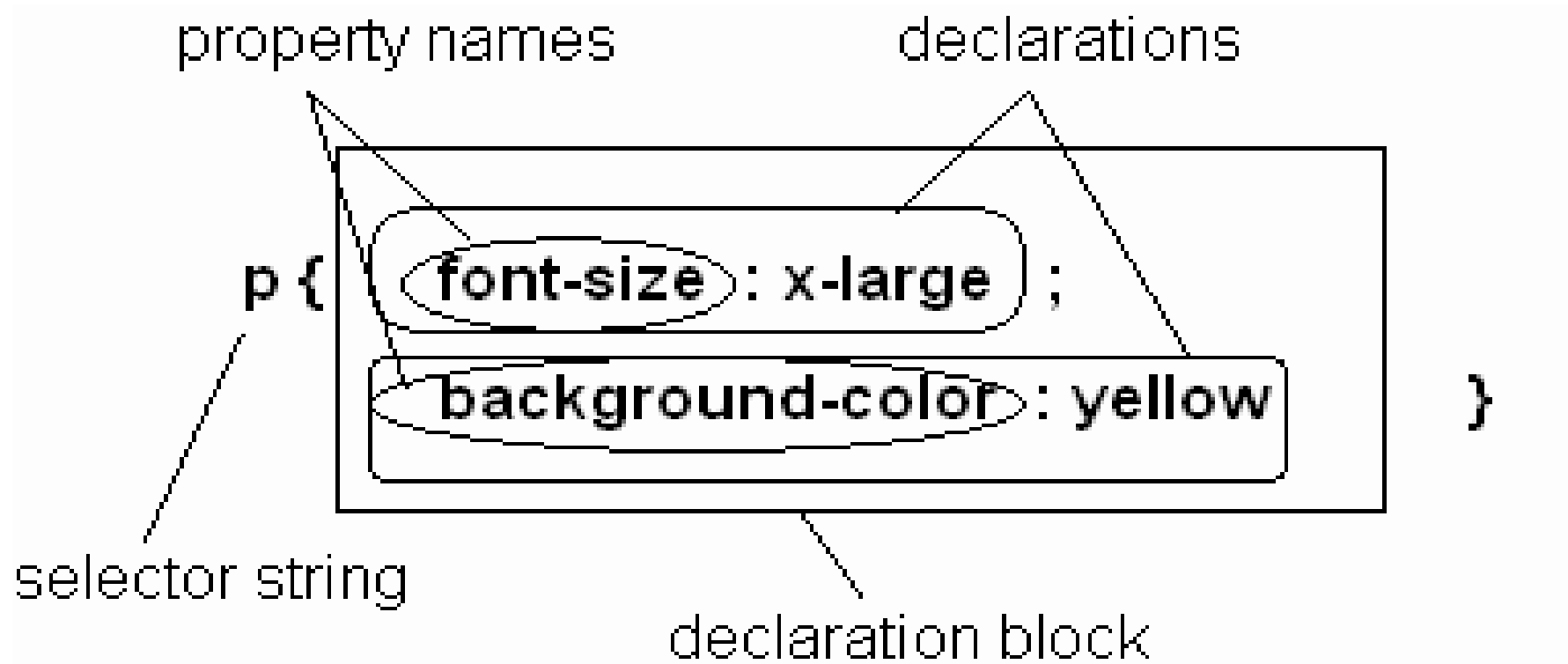
Single document can be displayed on multiple media platforms by tailoring style sheets:

```
<link rel="stylesheet" type="text/css" href="style1.css"
      media="screen, tv, projection" />
<link rel="stylesheet" type="text/css" href="style2.css"
      media="handheld, print" />
```

This document will be **printed** differently than it is **displayed**

Concept of CSS 3:CSS Properties

Parts of a **style rule** (or **statement**)



Concept of CSS 3:CSS Properties

- Single element type:

- ```
p { font-size:smaller; letter-spacing:1em }
```

- $5 < "7"$  is true

- All element types:

- ```
h1,h2,h3,h4,h5,h6 { background-color:purple }
```

- Spec:

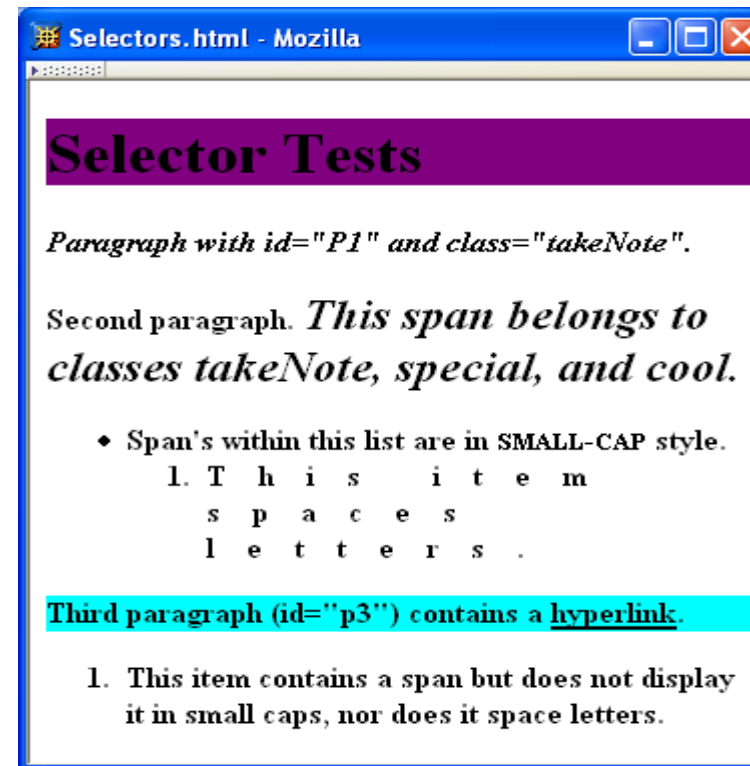
```
* { font-weight:bold }
```

```
#p1, #p3 { background-color:aqua }
```

Concept of CSS 3:CSS Properties

`<p id="p3">`

Third paragraph (id="p3") contains a



Concept of CSS 3:CSS Properties

Elements belonging to a **style class**:

```
#p4, .takeNote { font-style:italic }
```

Referencing a style class in HTML:

class selector: begins with a period .

- Elements of a certain type and class:

```
<span class="takeNote special cool">
```

```
span.special { font-size:x-large }
```


Concept of CSS 3:CSS Properties

lements belonging to a **style class**:

```
#p4, .takeNote { font-style:italic }
```

Elements of a certain type and class:

```
<span class="takeNote special cool">
```

this **span** belongs to three style classes

```
span.special { font-size:x-large }
```

Daily Quiz

Q1. Which of the following is NOT a method of creating a style sheet in web technology?

- (A) Inline styles
- (b) Internal styles
- © External styles
- (d) Embedded styles

Q2.What is the purpose of using CSS classes in a style sheet?

- (a) To define styles for HTML elements that share the same class attribute
- (b) To define styles for the entire HTML document.
- (C) To link external style sheets
- (d) To create inline styles for specific elements.

Q3.How can you add comments in a CSS file ?

- (A) /* This is a comment */
- (b) <!-- This is a comment -->
- © // This is a comment
- (D) <!--- This is a comment --->

Daily Quiz(cont..)

Q4.What is the purpose of the "cascading" in Cascading Style Sheets (CSS)

- (A)It refers to the process of combining multiple style sheets into one
- (B)It ensures that styles are applied in a specific order based on their priority.
- (c) It enables the use of colors and gradients in CSS.
- (D) It allows the creation of animated effects using CSS.

Q5.In the context of CSS specificity, which selector has the highest priority

- (A)Element selectors (e.g., p, h1, div)
- (B). Class selectors (e.g., .my-class)
- ©.ID selectors (e.g., #my-id)
- (D). Universal selectors (*)

Q6. Which CSS property is used to change the font size of an element's text?

- (A)font-size
- (B)text-size
- (C)font-style
- (D)text-font

Daily Quiz(cont..)

Q. 7 What is the correct way to define an inline style in HTML?

- a) `<style>body {color: blue;}</style>`
- b) `<link rel="stylesheet" type="text/css" href="styles.css">`
- c) Testing, Updation, Testing
- d) `<head><style>body {background-color: yellow;}</style></head>`

Q. 8 To create an external style sheet, you use a file with which extension

- a) .style
- b) .style-sheet
- c) .css
- d).html

Q. 9 Which HTML tag is used to link an external style sheet to an HTML document?

- a) `<stylesheet>`
- b)`<style>`
- c) `<link>`
- d) `<css>`

Daily Quiz(cont..)

Q 10 Which of the following options correctly implements the required CSS rule in "styles.css"?

a) /* styles.css */

```
.highlight {  
    color: green;
```

```
}
```

b) /* styles.css */

```
div p {  
    color: green;
```

```
}
```

c) /* styles.css */

```
p {  
    color: green;
```

```
}
```

d) /* styles.css */

```
#highlight {  
    color: green;
```

```
}
```

Daily Quiz(cont..)

Q 12 The expression `score = score + 10` can be written as

- `score += 10;`
- `score ++= 10;`
- `score =+ 10;`
- `score + 10 = 10;`

Q 13 The correct result of `score = 2 + 4 + "3"` is:

- 9
- 27
- 63
- 6

Q 14. Assignment Operators is following type of operator _____.

- None of these
- Unary
- Binary
- Ternary

Q 15 "Add and Assignment" operator is shown by this symbol.

`==+`

`+=`

`=+`

`+=`

Daily Quiz(Cont..)

Q 16. Which CSS property is used to control the space between lines of text in an element?

- A. letter-spacing B. word-spacing
- C. word-spacing D. text-spacing

Q 17. How can you make text inside an element italic in CSS?

- A. text-style: italic; B. font-style: italic;
- C. text-decoration: italic; D. font-italic: true;

Q 18. Which CSS property is used to create rounded corners on an element's border?

- A. border-radius B. border-style
- C. border-width D. border-corner-radius

Q 19. The CSS property "text-align" is used to:

- A. Set the color of the text inside an element.
- B. Control the alignment of an element's border
- C. Align the content of an element to the left, right, center, or justify
- D. Define the font size of an element's text.

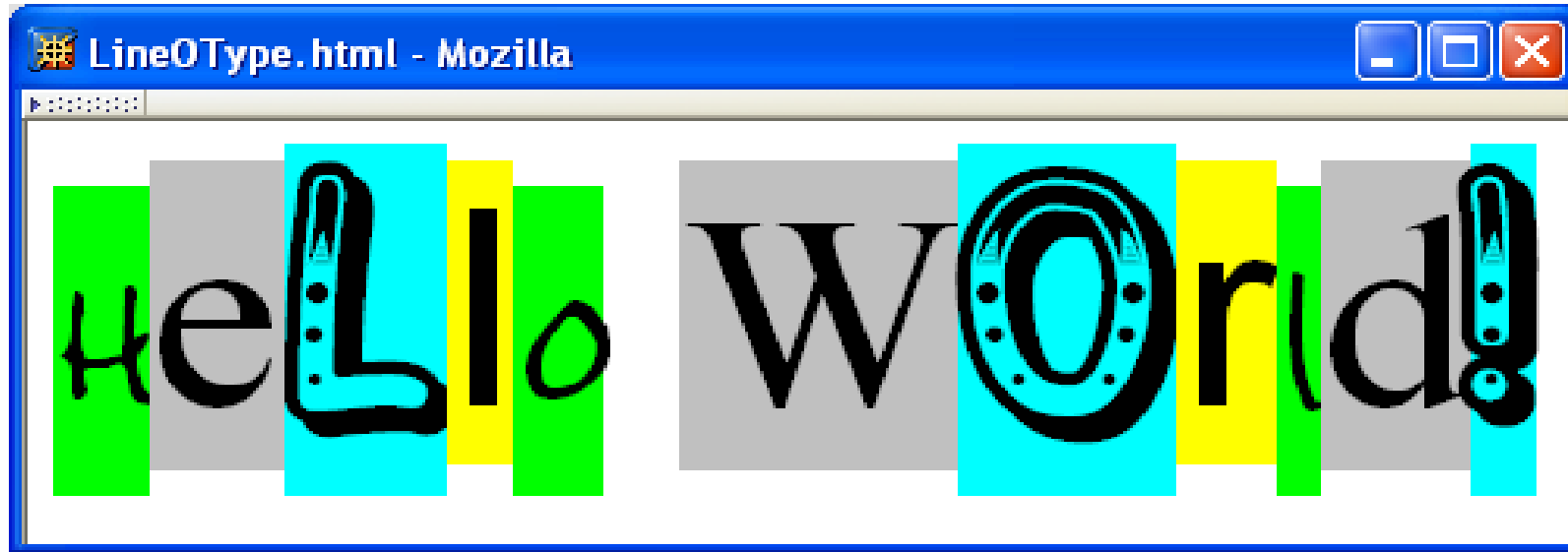
Daily Quiz (Cont..)

Q 20. How can you apply a 1-pixel solid red border to an element with the class "box" in CSS??

- A. `.box { border: solid red 1px; }`
- B. `.box { border: 1px red solid; }`
- C. `.box { border: red 1px solid; }`
- D. `.box { border: 1px solid red; }`

Concept of CSS 3: CSS Styling

- A font is a mapping from code points to glyphs.



Concept of CSS 3:CSS Styling

- A **font family** is a collection of related fonts (typically differ in size, weight, etc.)

```
<p style="font-family:'Jenkins v2.0'">
```

font-family property can accept a list of families, including **generic** font families

```
font-family:"Edwardian Script ITC","French Script MT",cursive
```

first choice font

,

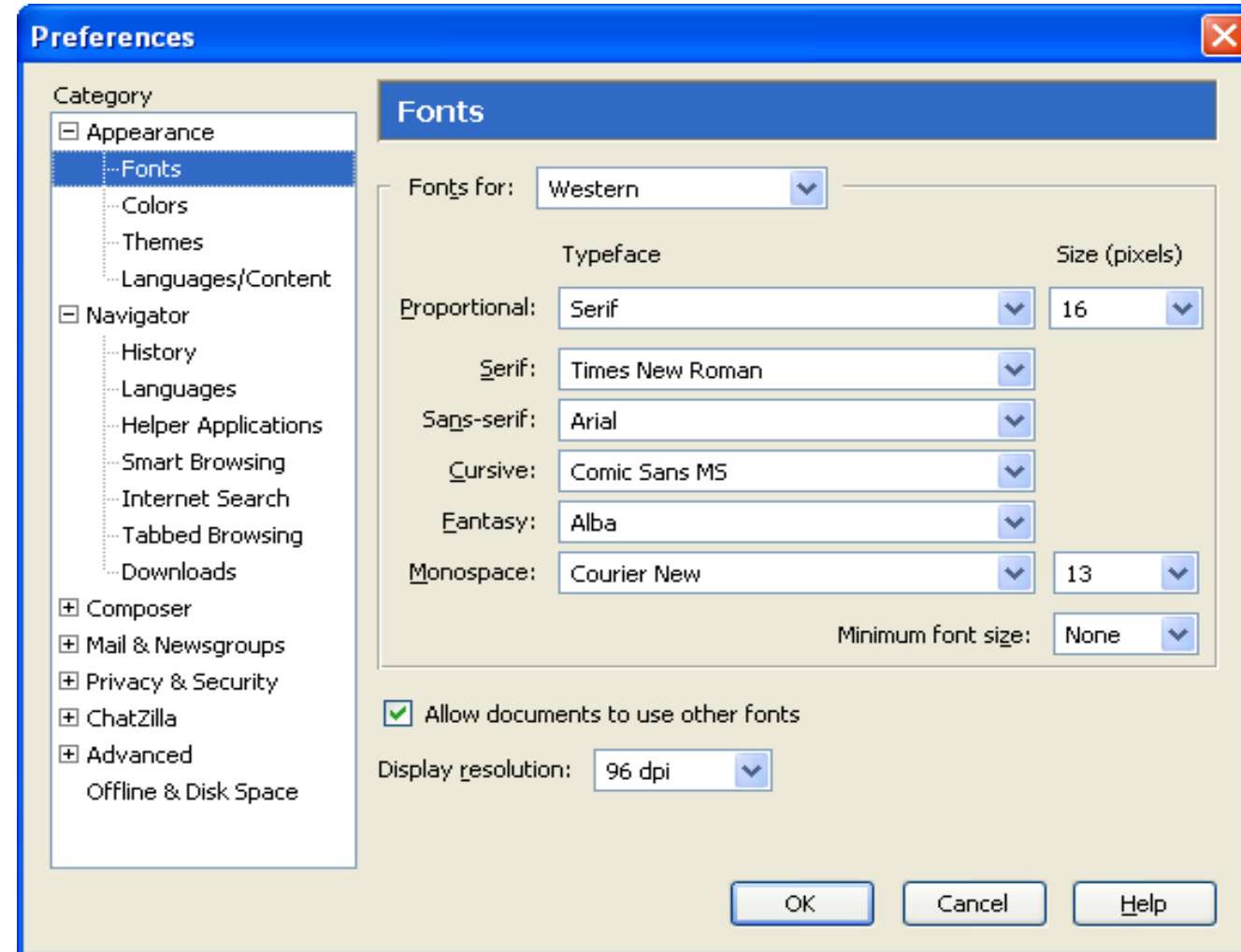
Concept of CSS 3:CSS Styling

- A **font family** is a collection of related fonts (typically differ in size, weight, etc.)
- font-family property can accept a list of families, including **generic** font families

```
<p style="font-family:'Jenkins v2.0'">
```

```
font-family:"Edwardian Script ITC","French Script MT",cursive
```

Concept of CSS 3: CSS Styling



Common HTML Events

- Note that most generic font can be easily set on Firefox and Chrome, but such option doesn't seem to be available on IE 7 and 8. IE will still default to something although maybe not what you had hoped for!

Concept of CSS 3:CSS Styling

- Things that should be done every time a page loads
- Things that should be done when the page is closed
- Action that should be performed when a user clicks a button
- Content that should be verified when a user inputs data
- HTML event attributes can execute JavaScript code directly
- HTML event attributes can call JavaScript functions
- You can assign your own event handler functions to HTML elements
- You can prevent events from being sent or being handled

Concept of CSS 3:CSS Styling

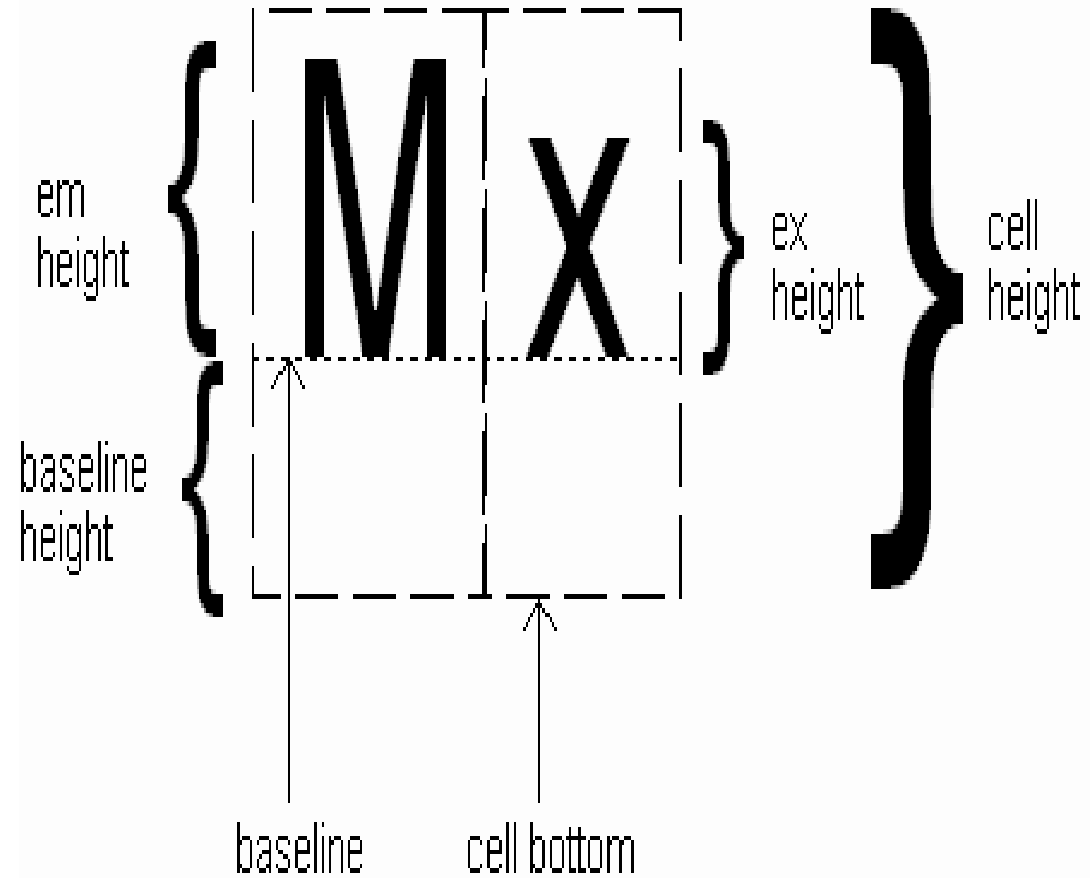
Many properties, such as font-size, have a value that is a [CSS length](#)
All CSS length values except 0 need units

TABLE 3.4: CSS length unit identifiers.

Identifier	Meaning
in	inches
cm	centimeters
mm	millimeters
pt	points: 1/72-inch
pc	picas: 12 points
px	pixel: typically 1/96-inch (see text).
em	1em is roughly the height of a capital letter in the reference font (see text).
ex	1ex is roughly the height of the lowercase 'x' character in the reference font (see text).

Concept of CSS 3: CSS Styling

Computed
value
of font-
size
property



Concept of CSS 3:CSS Styling

Reference font defines em and ex units

Normally, reference font is the font of the element being styled

Exception: Using em/ex to specify value for font-size

```
<div id="d1" style="font-size:12pt">
```

```
<div id="d2" style="font-size:2em">
```

CSS Styling

- Other ways to specify value for font-size:
 - **Percentage** (of parent font-size)
 - **Absolute size** keyword: xx-small, x-small, small, medium (initial value), large, x-large, xx-large

```
font-size:85%
```

- User agent specific; should differ by ~ 20%
- **Relative size** keyword: smaller, larger
 - Relative to parent element's font

Concept of CSS 3:CSS Styling

TABLE 3.5: Additional font style properties.

Property	Possible values
<code>font-style</code>	<code>normal</code> (initial value), <code>italic</code> (more cursive than normal), or <code>oblique</code> (more slanted than normal).
<code>font-weight</code>	<code>bold</code> or <code>normal</code> (initial value) are standard values, although other values can be used with font families having multiple gradations of boldness (see CSS2 [W3C-CSS-2.0] for details).
<code>font-variant</code>	<code>small-caps</code> , which displays lowercase characters using uppercase glyphs (small uppercase glyphs if possible), or <code>normal</code> (initial value)

Concept of CSS 3: CSS Styling

- Text is rendered using line boxes



- Height of line box given by **line-height**
 - Initial value: normal (*i.e.*, cell height; relationship with em height is font-specific)
 - Other values (following are equivalent):

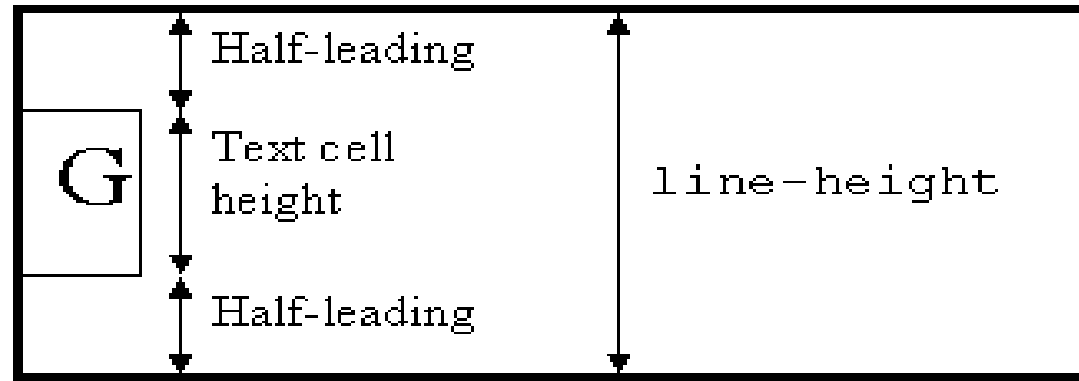
`line-height: 1.5em`

`line-height: 150%`

`line-height: 1.5`

Concept of CSS 3: CSS Styling

- When line-height is greater than cell height:



- Inheritance of line-height:
 - Specified value if normal or unit-less number
 - Computed value otherwise

Concept of CSS 3:CSS Styling

- font [shortcut property](#):

```
{ font: italic bold 12pt "Helvetica",sans-serif }
```

```
{ font-style: italic;  
  font-variant: normal;  
  font-weight: bold;  
  font-size: 12pt;  
  line-height: normal;  
  font-family: "Helvetica",sans-serif }
```

Concept of CSS 3:CSS Styling

- font [shortcut property](#):

```
{ font: italic bold 12pt "Helvetica",sans-serif }
```

```
{ font-style: italic;  
  font-variant: normal;  
  font-weight: bold;  
  font-size: 12pt;  
  line-height: normal;  
  font-family: "Helvetica",sans-serif }
```

specifying line-height (here, twice cell height)

```
{ font: bold oblique small-caps 12pt/2 "Times New Roman",serif }
```

any order

Concept of CSS 3:CSS Styling

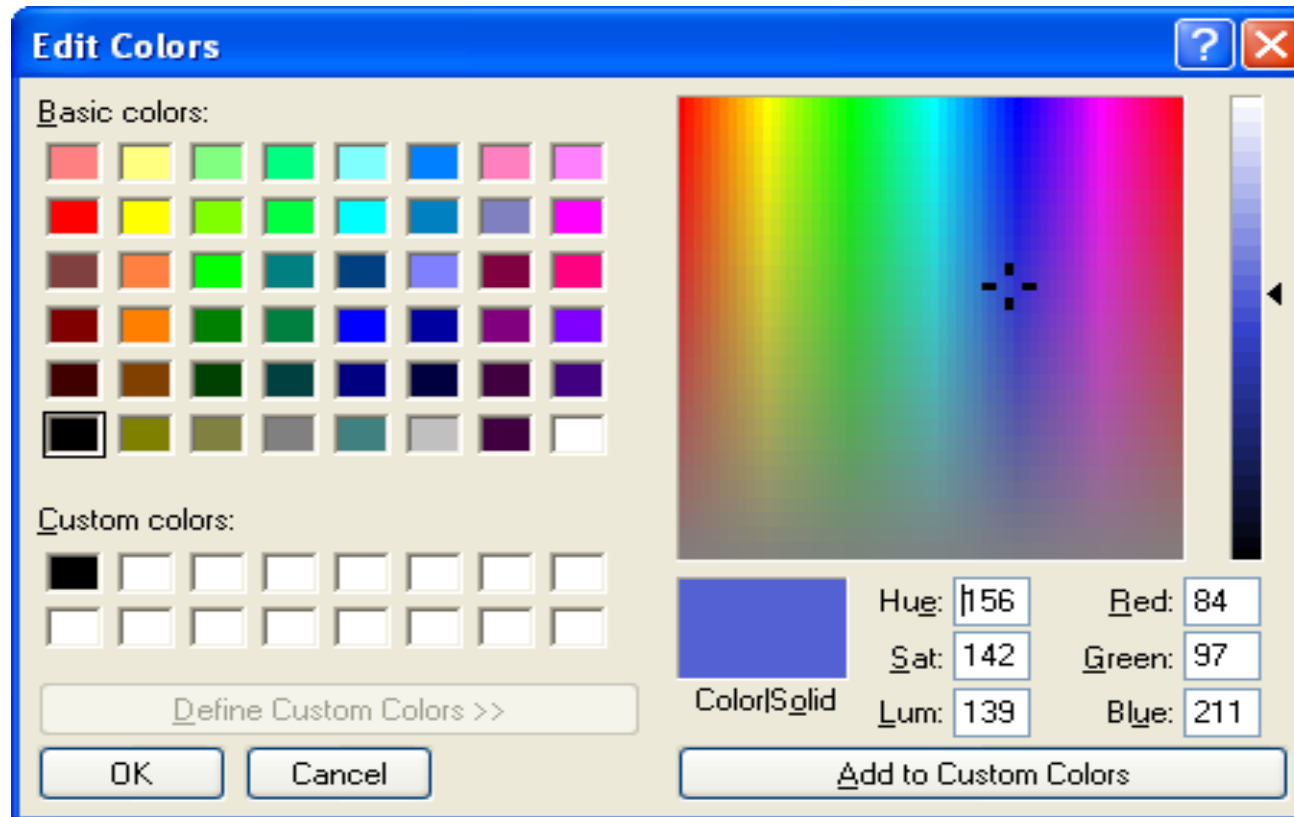
TABLE 3.6: Primary CSS text properties.

Property	Values
text-decoration	none (initial value), underline , overline , line-through , or space-separated list of values other than none .
letter-spacing	normal (initial value) or a length representing additional space to be included between adjacent letters in words. Negative value indicates space to be removed.
word-spacing	normal (initial value) or a length representing additional space to be included between adjacent words. Negative value indicates space to be removed.
text-transform	none (initial value), capitalize (capitalizes first letter of each word), uppercase (converts all text to uppercase), lowercase (converts all text to lowercase).
text-indent	length (initial value 0) or percentage of box width, possibly negative. Specify for block elements and table cells to indent text within first line box.
text-align	left (initial value for left-to-right contexts), right , center , or justified . Specify for block elements and table cells.
white-space	normal (initial value), pre . Use to indicate whether or not white space should be retained.

Concept of CSS 3:CSS Styling

- Font color specified by color property
- Two primary ways of specifying colors:
 - Color name: black, gray, silver, white, red, lime, blue, yellow, aqua, fuchsia, maroon, green, navy, olive, teal, purple, full list at <http://www.w3.org/TR/SVG11/types.html#ColorKeywords>
 - red/green/blue (RGB) values

Concept of CSS 3:CSS Styling



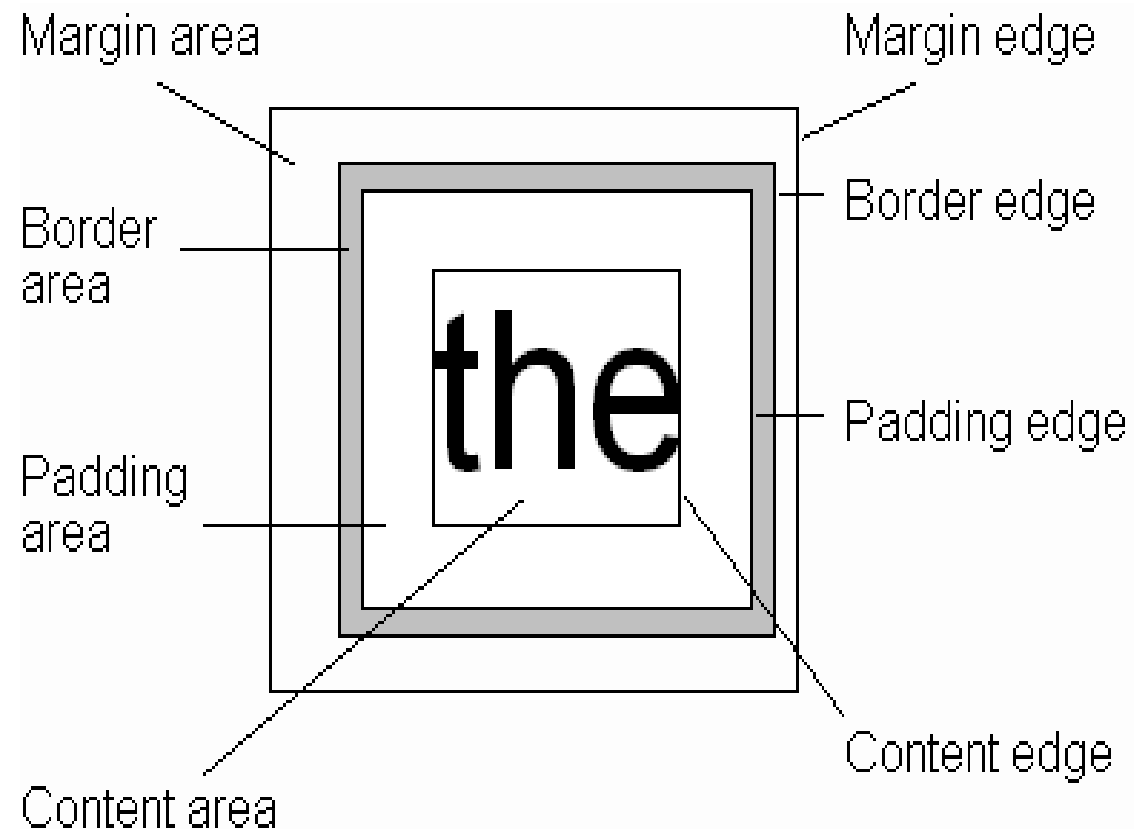
Concept of CSS 3:CSS Styling

TABLE 3.7: Alternative formats for specifying numeric color values.

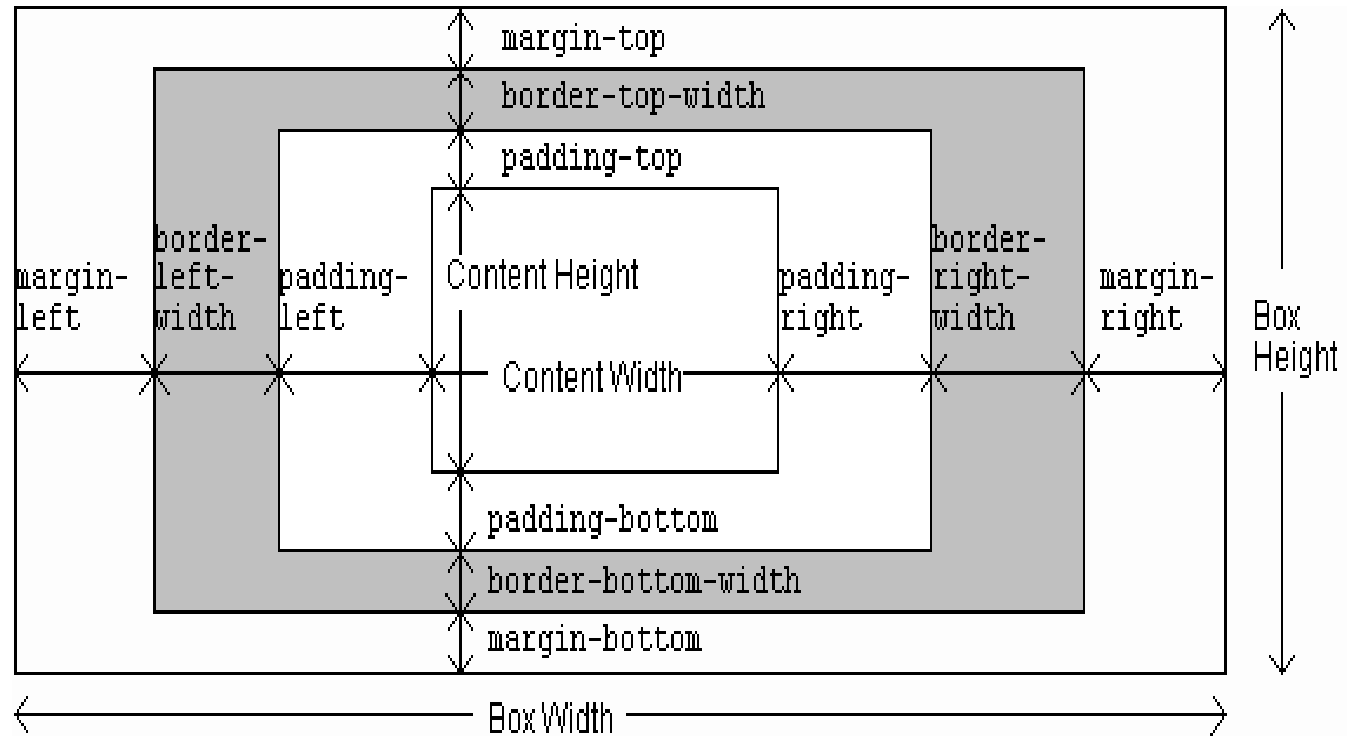
Format	Example	Meaning
Functional, integer arguments	<code>rgb(255,170,0)</code>	Use arguments as RGB values.
Functional, percentage arguments	<code>rgb(100%,66.7%,0%)</code>	Multiply arguments by 255 and round to obtain RGB values (at most one decimal place allowed in arguments).
Hexadecimal	<code>#ffaa00</code>	The first pair of hexadecimal digits represents the red intensity, second and third represent green and blue, respectively.
Abbreviated hexadecimal	<code>#fa0</code>	Duplicate the first hexadecimal digit to obtain red intensity, duplicate second and third to obtain green and blue, respectively.

Concept of CSS 3: CSS Box Model

- Every rendered element occupies a box:

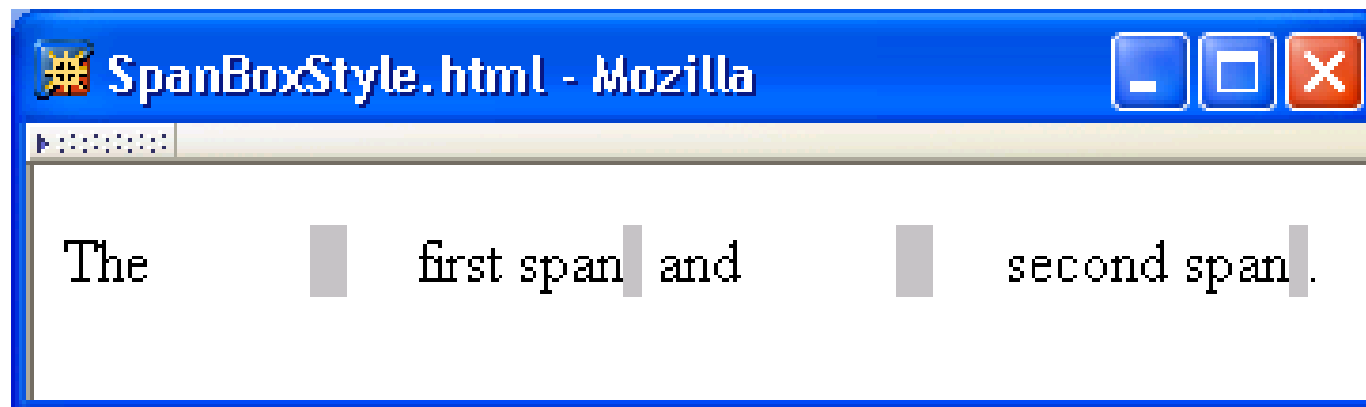


Concept of CSS 3: CSS Box Model



Concept of CSS 3:CSS Box Model

```
span { margin-left: 1cm;  
        border-left-width: 10px;  
        border-left-color: silver;  
        border-left-style: solid;  
        padding-left: 0.5cm;  
        border-right-width: 5px;  
        border-right-color: silver;  
        border-right-style: solid }
```



Concept of CSS 3:CSS Box Model

TABLE 3.9: Basic CSS style properties associated with the box model.

Property	Values
padding-{top,right,bottom,left}	CSS length (Sec. 3.6.2).
padding	One to four length values (see text).

TABLE 3.10: Meaning of values for certain shorthand properties that take one to four values.

Number of values	Meaning
One	Assign this value to all four associated properties (top , right , bottom , and left).
Two	Assign first value to associated top and bottom properties, second value to associated right and left properties.
Three	Assign first value to associated top property, second value to right and left , and third value to bottom .
Four	Assign first value to associated top property, second to right , third to bottom , and fourth to left .

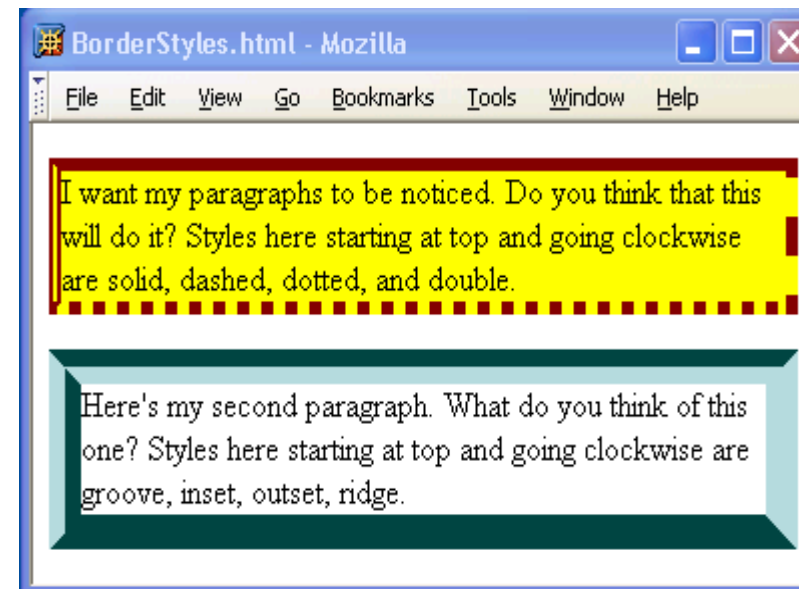
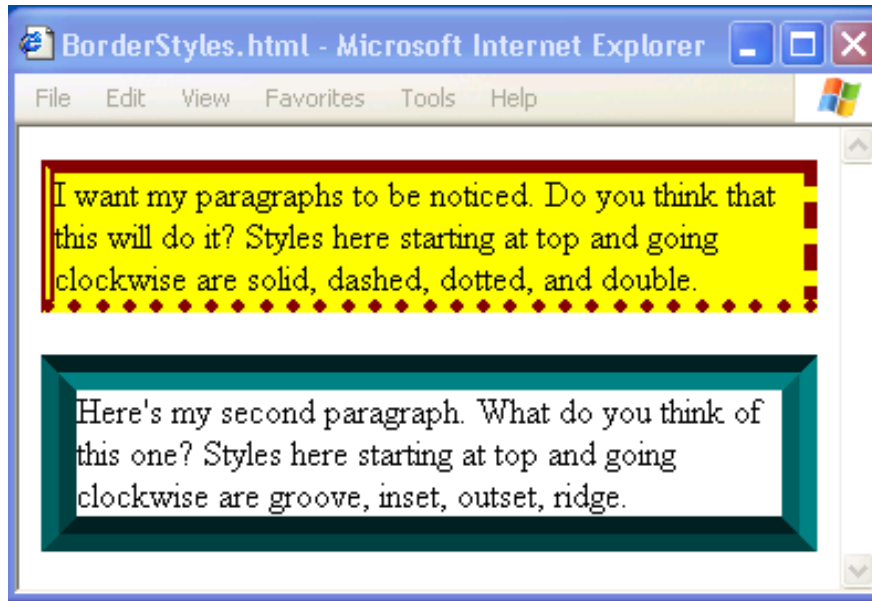
Concept of CSS 3:CSS Box Model

TABLE 3.9: Basic CSS style properties associated with the box model.

<code>border-{top,right,bottom,left}-width</code>	<code>thin</code> , <code>medium</code> (initial value), <code>thick</code> , or a length.
<code>border-width</code>	One to four <code>border-*-width</code> values.
<code>border-{top,right,bottom,left}-color</code>	Color value. Initial value is value of element's <code>color</code> property.
<code>border-color</code>	<code>transparent</code> or one to four <code>border-*-color</code> values.

Concept of CSS 3:CSS Box Model

<code>border-{top,right,bottom,left}-style</code>	none (initial value), hidden, dotted, dashed, solid, double, groove, ridge, inset, outset.
<code>border-style</code>	One to four border-*-style values.



Concept of CSS 3:CSS Box Model

TABLE 3.9: Basic CSS style properties associated with the box model.

<code>border-{top,right,bottom,left}</code>	One to three values (in any order) for <code>border-*-width</code> , <code>border-*-color</code> , and <code>border-*-style</code> . Initial values are used for any unspecified values.
<code>border</code>	One to three values; equivalent to specifying given values for each of <code>border-top</code> , <code>border-right</code> , <code>border-bottom</code> , and <code>border-left</code> .
<code>margin-{top,right,bottom,left}</code>	<code>auto</code> (see text) or length.
<code>margin</code>	One to four <code>margin-*</code> values.

Concept of CSS 3:CSS Box Model

- If multiple declarations apply to a property, the last declaration overrides earlier specifications

Left border is 30px wide,
inset style, and red

```
{ border: 15px solid;  
  border-left: 30px inset red;  
  color: blue }
```

Daily Quiz

Q 1 Which of the following options correctly describes the usage of CSS styles in web technology?

- a) CSS is used to structure the content of a web page, such as defining headings, paragraphs, and lists .
- b) CSS is used to add interactivity and dynamic behavior to a web page, such as handling user interactions and form validations
- c) CSS is used to define the layout and presentation of a web page, such as setting colors, fonts, and spacing
- d) CSS is used to define the server-side logic and database connections for a web application

Q 2 Which CSS property is used to change the text color of an element?

- a) text-color
- b) color
- c) font-color
- d) text style

Q 3 How can you apply external CSS styles to an HTML document?

- a) Using the '<style>' element within the HTML file.
- b) Using the 'style' attribute in HTML tags.
- c) Using the 'link' element with the 'rel' attribute set to 'stylesheet'.
- d) Using the 'css' in the head section of the HTML file.

Daily Quiz(cont..)

Q 4. What does CSS stand for

- a) Creative Style Sheets
- b) Computer Style Sheets
- c) Cascading Style Sheets
- d) Colorful Style Sheets

Q 5 Which HTML tag is used to link an external CSS file to an HTML document?

- a) <script>
- b) <css>
- c) <link>
- d) <style>

Q 6 The CSS property used to add spacing between lines of text is:

- a) line-height
- b) letter-spacing
- c) text-spacing
- d) line-spacing

Q 7 How can you set the background color of an element in CSS

- a) background-color
- b) bg-color
- c) color-background
- d) background-style

Daily Quiz(cont..)

Q 8 What is the Box Model in CSS?

- a) A design technique for creating 3D boxes in web pages.
- b) A layout model that arranges elements in a grid pattern.
- c) A concept that describes how elements are rendered as rectangular boxes.
- d) A method for creating responsive web designs.

Q 9 Which CSS property is used to create rounded corners on elements

- a) border-radius
- b) corner-radius
- c) rounded-style
- d) border-style

Q 10 How can you center an element horizontally in CSS?

- a) align: center;
- b) horizontal-align: center;
- c) margin: auto;
- d) center: true;

Q 11 What is the correct way to select an element with the ID "header" in CSS?

- a) #header
- b) .header
- c) header
- d) id(header)

Daily Quiz(cont..)

Q 12 Which of the following properties is NOT part of the Box Model?

a)border b) margin c) padding d) float

Q 13 In the Box Model, the total width of an element is calculated as:

a)width + margin + padding + border

b) width + margin + padding

c) width + padding + border

d) width + margin + border

Q 14 Which CSS property is used to set the space between an element's content and its border?

a. border-width b) margin c) padding d) border-spacing

Q 15 The CSS property "box-sizing" is used to control how the total width and height of an element are calculated. What are the possible values for "box-sizing"?

a)content-box and padding-box

b) border-box and content-box

c) margin-box and padding-box

d) border-box and padding-box

Q 16 The CSS property "border-radius" is used to:

a)set the width of an element's border.

b) create rounded corners on an element.

c) adjust the spacing between an element's border and content.

d) align an element horizontally within its parent container.

Daily Quiz(cont..)

Q 17 What will be the total width of an element with a width of 200px, a padding of 20px on the left and right sides, and a border of 2px on the left and right sides?

- a) 224px
- b) 242px
- c) 204px
- d) 220px

Q 18 If an element has a width of 300px, padding of 10px, and a border of 5px, what will be the total width of the element when "box-sizing" is set to "border-box"?

- a) 300px
- b) 320px
- c) 330px
- d) 340px

Q 19 The "padding-bottom" property in CSS is used to set:

- a) the space between an element's border and its content on the bottom side.
- b) the space between an element's border and its content on all sides.
- c) the space between an element's border and its parent container on the bottom side.
- d) the space between an element's border and its parent container on all sides.

Q 20 The "margin" property in CSS is used for:

- a) adding space between an element's content and its border.
- b) setting the width of an element's border.
- c) positioning an element within its parent container.
- d) adding space between an element and its neighboring elements.

Concept of CSS 3: CSS Advanced (Grouping styles)

You can give the same properties to a number of selectors without having to repeat them by separating the selectors by **commas**. It is a useful thing for reducing file size.

- Example

h2

```
{  
  color: red;  
}
```

.thisOtherClass

```
{  
  color: red;  
}
```

.yetAnotherClass

```
{ color: red; }
```

h2, .thisOtherClass, .yetAnotherClass

```
{  
  color: red;  
}
```

h1, h2, h3, h4, h5, h6

```
{  
  color: blue;  
}
```

Concept of CSS 3: CSS Advanced (Nested Styles)

If the CSS is structured well, there shouldn't be a need to use many class or ID selectors. This is because you can specify properties to selectors *within* other selectors.

```
#top    { background-color: #ccc; padding: 1em }  
#top    h1 { color: #ff0; }  
#top p  { color: red; font-weight: bold; }
```

Concept of CSS 3: CSS Advanced (Conditional CSS)

```
a[href $='.pdf'] {  
    padding-right: 18px;  
    background: transparent url(icon_pdf.gif) no-repeat center  
    right;  
}
```

This would attach a pdf icon to the right of any hyperlink who's URL ended in '.pdf' like this. This was pretty exciting and heady stuff. It meant I could show the file type visually with that application's icon just by including a few lines in my master css file. I didn't have to worry about it at all in my html, css would add the icon for me automatically.

Concept of CSS 3:CSS Advanced

```
span[id ^='google'] {  
    background-color: green;  
}
```

- Any span which has an id which starts with 'google' will be assigned a green background.
- [More Examples](#)

Concept of CSS 3:CSS Advanced

```
.ie .example {  
background-color: yellow  
}  
.gecko .example {  
background-color: gray  
}  
.opera .example {  
background-color: green  
}  
.konqueror .example {  
background-color: blue  
}  
.webkit .example {  
background-color: black  
}  
.example {  
width: 100px;  
height: 100px;  
background-color: brown;  
}
```

Concept of CSS 3:CSS Advanced(Cont..)

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html lang="en">
  <head>
    <title>Test</title>
    <link href="all_browsers.css" rel="stylesheet" type="text/css">
    <!--[if IE]> <link href="ie_only.css" rel="stylesheet" type="text/css"> <![endif]-->
    <!--[if lt IE 7]> <link href="ie_6_and_below.css" rel="stylesheet" type="text/css"> <![endif]-->
    <!--[if !lt IE 7]><![IGNORE[--><![IGNORE[]]> <link href="recent.css" rel="stylesheet" type="text/css"> <!--<![endif]-->
    <!--[if !IE]>--> <link href="not_ie.css" rel="stylesheet" type="text/css"> <!--<![endif]-->
  </head>
  <body>
    <p>Test</p>
  </body>
</html>
```

Concept of CSS 3:CSS Advanced(Validation)(Cont..)

- Validate your HTML
validator.w3.org
- Validate your CSS
jigsaw.w3.org/css-validator/
- Check for web accessibility
bobby.watchfire.com

Daily Quiz

Q 1 In CSS, what does the "+" selector do?

Selects the first child element of the parent.

- b) Selects all elements that are immediately preceded by a sibling element.
- c) Selects all child elements of the parent.
- d) Selects all elements with a specific attribute

Q 2 The CSS property "box-shadow" is used for:

- a) Adding a shadow behind an element's border-box.
- b) Adding a shadow inside an element's content-box.
- c) Changing the shape of an element's box.
- d) Creating a border around an element.

Q 3 The "z-index" property in CSS is used to control:

- a) The positioning of an element along the z-axis (depth).
- b) The size of an element's width and height.
- c) The positioning of an element within its parent container.
- d) The spacing between an element's border and content.

Q 4 How can you make an element "float" in CSS?

- a) float: left; b) position: float; c) display: float; d) align: float;

Q 5 Which CSS property is used to change the size of an element's font?

- a) font-size b) text-size c) font-style d) size

Daily Quiz(Cont..)

Q 6 What is the purpose of CSS image sprites?

- a) Combining multiple images into a single image to reduce HTTP requests.
- b) Adding decorative elements to the background of a webpage.
- c) Applying different styles to elements based on their attribute values.
- d) Animating images on a webpage.

Q 7 How can you center an element both horizontally and vertically in CSS?

- a) center: horizontal vertical;
- b) position: center center;
- c) display: center;
- d) margin: auto;

Q 8 Which CSS property is used to set the space between lines of text within an element?

- a) line-spacing b) line-height c) text-spacing d) font-line

Q 9 What is the purpose of a navigation bar in web development?

- a) It is used to store and organize data related to a website's users.
- b) It is used to display images and videos on a webpage.
- c) It is used to create interactive menus for website navigation.
- d) It is used to define the structure and layout of a webpage.

Q 10 The CSS pseudo-class ":hover" is used to apply styles:

- a) When an element is clicked.
- b) When an element is focused.
- c) When an element is hovered over with the mouse pointer.
- d) When an element is the first child of its parent.

Daily Quiz(Cont..)

Q 12 The CSS property "display: flex;" is used for:

- a) Creating animations on a webpage.
- b) Styling form elements like buttons and inputs.
- c) Creating a responsive layout with flexible boxes.
- d) Applying a gradient background to an element.

Q 13 How can you select all elements with the attribute "target" set to "_blank" in CSS?

- a) target="_blank"
- b) [target="_blank"]
- c) :target="_blank"
- d) :target[_blank]

Q 14 The CSS property "position: fixed;" is used to:

- a) Position an element relative to its parent container.
- b) Position an element relative to the viewport, even when scrolling.
- c) Make an element float above other elements in the stacking order.
- d) Create a fixed-width container for the element.

Q 15 How can you select the first child element of a parent using CSS?

- a) :first-child
- b) first-child
- c) .first-child
- d) #first-child

Daily Quiz(Cont..)

Q 16 The CSS pseudo-element "::before" is used to:

- a) Insert content before the content of an element.
- b) Select an element that comes before another specific element.
- c) Style the first line of an element's text.
- d) Create a new block-level container within an element.

Q 17 The CSS property "clear" is used to:

- a) Clear all styles applied to an element.
- b) Prevent an element from floating next to a floated element.
- c) Remove the background color of an element.
- d) Change the color of the text inside an element.

Q 18 What is the purpose of the CSS attribute selector?

- a) It allows you to select elements based on their position within the HTML document.
- b) It allows you to select elements based on their class names or IDs.
- c) It allows you to select elements based on their attributes and attribute values.
- d) It allows you to group elements together and apply styles collectively.

Concept of CSS 3:Bootstrap

- Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first web sites.
- Advantages of Boot Strapping-
- **Easy to use:** Anybody with just basic Knowledge of HTML and CSS can start using Bootstrap.
- **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops.
- **Mobile –First approach:** In Bootstrap 3, mobile first styles are part of the core framework.

Concept of CSS 3:Bootstrap

- This is the strongest part of bootstrap framework. Bootstrap offers a 12 column grid system. The grid system is responsive, that it adjust itself depending upon the device resolution of the client. These grids have further classes that have been defined in sync with the device resolution that they are represent.
- These grids have classes xs, sm, md and lg each representing a device resolution. All the developer needs to do is include these classes while defining the visibility of element in the mark-up and hence come up with a responsive website. The responsive grid makes developing responsive websites really easy using bootstrap.

Concept of CSS 3:Bootstrap

➤ Bootstrap Components

Bootstrap.css

- This is the basic Bootstrap package that you will need to download. CSS is a style sheet language for static information.

Bootstrap.js

- A JavaScript/JQuery library that powers up certain components of Bootstrap such as animation, scrolling, and interactivity.

Glyphicons

- Glyphs are elemental symbols with typography, such as the English Pound symbol (£). Bootstrap has a huge list of embedded glyph icons that are available for free.

Concept of CSS 3:Bootstrap

- Bootstrap source code elements
- Bootstrap Screen Sizes The Bootstrap source code download includes the precompiled CSS, JavaScript, and font assets, along with source Less, JavaScript, and documentation.
- less/ - a preprocessor style sheet for CSS that eliminate repetitive coding tasks
- sass/ - a newer version of the preprocessor that is more popular
- js/ - simply refers to the source code JavaScript, which allows Bootstrap components to work
- fonts/ - these are icon fonts that come with the download
- dist/ - a folder that contains precompiled files for drop-in use in website development

Daily Quiz

Q 1 What is Bootstrap?

- a) A JavaScript library for building interactive web applications.
- b) A framework for creating responsive and mobile-first websites.
- c) A programming language for server-side web development.
- d) An image editing software for web designers.

Q 2 Which CSS preprocessor is used in Bootstrap?

- a) Sass
- b) Less
- c) Stylus
- d) CSS is not used in Bootstrap.

Q 3 The Bootstrap grid system is based on how many columns?

- a) 10 b) 12 c) 16 d) 24

Q 4 . In Bootstrap, the "container" class is used to:

- a) Create a fixed-width container for the content.
- b) Create a full-width container that spans the entire viewport.
- c) Define the position of an element within its parent container.
- d) Style the font of the text inside the container.

Daily Quiz(Cont..)

Q 6 What is the purpose of the Bootstrap "navbar" component?

- a) To display images and videos on a webpage.
- b) b) To create a responsive layout with flexible boxes.
- c) c) To add rounded corners to elements.
- d) d) To create a navigation bar for website navigation.

Q 7 Which Bootstrap class is used to create a responsive, fixed-width container that centers the content?

- a) .container-fixed
- b) b) .container-fluid
- c) c) .container-responsive
- d) d) .container-center

Q 8 The Bootstrap "btn" class is used for styling:

- a) Navigation bars.
- b) Buttons.
- c) Tables.
- d) Forms.

Daily Quiz(Cont..)

Q 11 Which Bootstrap class is used to create a flexible, responsive card container that can hold various types of content?

- a) .card-container b) .box c) .panel d) .card

Q 12 What is the purpose of Bootstrap "glyphicons"?

- a) To style text and headings on a webpage.
- b) To create animated effects on elements.
- c) To display icons and symbols on a webpage.
- d) To add rounded corners to images.

Q 13 Which class is used to create a progress bar in Bootstrap?

- a) .progress-bar b) .loading-bar c) .progress-indicator d) .bar-fill

Q 14 What is the purpose of the Bootstrap Modal component?

- a) To display images in a gallery
- b) To create pop-up advertisements
- c) To show additional content on a page
- d) To display a dialog box on top of the current page

Q 15 What is the purpose of the "data-toggle" attribute in Bootstrap?

- a) It enables data binding with a back-end server.
- b) It activates Bootstrap components using JavaScript.
- c) It defines the structure of the HTML document.
- d) It sets the default styling for all Bootstrap elements.

Daily Quiz(Cont..)

Q 16. Which Bootstrap class is used to create a collapsible accordion?

- a) .collapse b) .collapsible c) .accordion d) .expandable

Q 17 How can you add dropdown menus to a navigation bar in Bootstrap?

- a) By using the .dropdown class inside a .nav-item
- b) By using the .nav-dropdown class inside a .navbar
- c) By using the .dropdown-menu class inside a .nav-link
- d) By using the .navbar-dropdown class inside a .navbar-item

Q 18 Which class is used to create responsive, equal-width columns in Bootstrap?

- a) .col-fixed b) .col-fluid c) .col-equal d) .col

Q 19 How do you integrate Bootstrap into your web project?

- a) By copying and pasting Bootstrap files directly into your project directory
- b) By using a CDN link to include Bootstrap's CSS and JS files in your HTML
- c) By converting your project to a Bootstrap-specific file format
- d) By installing Bootstrap as a Python package

Q 20 Which version of HTML does Bootstrap primarily support?

- a) HTML4 b) HTML5 c) XHTML d) XML

Bootstrap Plugins

Bootstrap provides custom events for most plugin's unique actions. Generally, these events come in two forms – Infinitive form – This is triggered at the start of an event. E.g. show. Infinitive events provide preventDefault functionality.

Form Plugins:

Table Plugins

Menu & Navigation Plugins

Notification Plugins

Modal Plugins

Button Plugins

Other Plugins

0

Daily Quiz

Q 1 What are Bootstrap plugins?

- a) External JavaScript libraries that extend Bootstrap functionality
- b) CSS stylesheets to customize Bootstrap components
- c) Custom Bootstrap templates for different industries
- d) Bootstrap's built-in design tools

Q 2 Which attribute is used to enable the Bootstrap Tooltip plugin?

- a) data-toggle="tooltip"
- b) data-tooltip="true"
- c) data-tooltip="enable"
- d) data-tooltip="bootstrap"

Q 3 What is the purpose of the Bootstrap Modal plugin?

- a) To create image galleries
- b) To display additional information on a target element
- c) To validate form fields
- d) To display a pop-up dialog box on top of the current page

Q 4 Which Bootstrap plugin is used to add a date picker to form fields?

- a) Datepicker.js b) Calendar.js c) Datetimepicker.js d) DatePicker.plugin

Daily Quiz(Cont..)

Q 8 Which class is used to enable the Bootstrap Scrollspy plugin?

- a) .scrollspy b) .spy c) .scroll d) .scroll-plugin

Q 9 Which Bootstrap plugin is used to enhance the appearance of HTML tables?

- a) DataTables b) TableStyles c) EnhancedTables d) BootstrapTables

Q 10 What is the function of the Bootstrap Affix plugin?

- a) To fix the navigation bar at the bottom of the page
- b) To toggle the visibility of elements on scroll
- c) To create sticky elements that stick to the top of the page
- d) To animate scrolling within the page

Q 11 Which attribute is used to activate the Bootstrap Dropdown plugin?

- a) data-plugin="dropdown"
- b) data-toggle="dropdown"
- c) data-dropdown="true"
- d) data-target="dropdown"

Daily Quiz(Cont..)

Q 13 What is the purpose of the Bootstrap Typeahead plugin?

- a) To create animated text effects
- b) To autocomplete user input in text fields
- c) To format text in a specific font
- d) To create scrolling text elements

Q 14 Which class is used to enable the Bootstrap Tab plugin?

- a) .tab
- b) .tabs
- c) .tabbable
- d) .tab-toggle

Q 15 What is the purpose of the Bootstrap Affix plugin?

- a) To fix the navigation bar at the bottom of the page
- b) To toggle the visibility of elements on scroll
- c) To create sticky elements that stick to the top of the page
- d) To animate scrolling within the page

Daily Quiz(Cont..)

Q 17 How do you enable the Bootstrap Popover plugin for an element?

- a) data-popover="true"
- b) data-toggle="popover"
- c) data-tooltip="enable"
- d) data-popup="enable"

Q 18 Which Bootstrap plugin is used for form validation?

- a) Validate.js
- b) FormValidator.js
- c) BootstrapValidator.js
- d) ValidForm.js

Q 19 What is the purpose of the Bootstrap Tooltip plugin?

- a) To display alert messages
- b) To create animated banners
- c) To provide additional information on hover
- d) To validate form fields

Weekly Assignment

1. Explain Background Properties and Typography Properties? **[CO3]**
2. Explain Text Formatting and Controlling Fonts in CSS. **[CO3]**
3. Define Advanced Background Patterns in CSS. **[CO3]**
4. Explain Image Gallery with CSS Grid . **[CO3]**
5. **Define Building a Product Gallery.[CO3]**
6. What is Flexbox and Grid Layout Properties. **[CO3]**
7. How to Creating a Two-Column Layout ? **[CO3]**
8. What are the different levels of headings in HTML ? **[CO3]**
9. How to Creating a Navigation Bar and Styling a Contact Form. **[CO3]**
10. How to create a Data Table,Styling Table Header and Responsive Table. **[CO3]**

MCQ s

Q 1 Which CSS property is used to group multiple selectors together and apply the same styles to all of them?

- a) grouping
- b) merge
- c) combine
- d) comma

Q 2 Image sprites are used in CSS to:

- a) Display images in a slideshow format.
- b) Combine multiple images into a single image file to reduce HTTP requests.
- c) Create rounded corners on images.
- d) Change the color of an image.

Q 3 Which CSS pseudo-class is used to select and style the first letter of a block-level element?

- a) :first-line
- b) :first-letter
- c) :first-child
- d) :first-of-type

MCQs(Cont..)

Q 4. The CSS property "display: inline-block" is used for elements to:

- a) Make them appear on the same line as inline elements.
- b) Display them as block-level elements.
- c) Hide them from the page.
- d) Create an animation effect.

Q 5.The CSS property "max-width" is used to:

- a) Set the maximum width of an element.
- b) Define the minimum width of an element.
- c) Set the width of an element relative to its parent container.
- d) Make an element invisible if it exceeds a certain width.

Q 6.What is the purpose of the Bootstrap Scrollspy plugin?

- a) To add smooth scrolling animations to the website.
- b) To display a list of related links in a dropdown menu.
- c) To keep the navigation bar fixed at the top of the page.
- d) To highlight the active section in the navigation based on the user's scroll position.

MCQs(Cont..)

Q 7 .The CSS "text-align" property is used to:

- a) Set the alignment of an element within its container.
- b) Define the shape of an element.
- c) Set the spacing between characters in text.
- d) Control the display of text when it overflows its container.

Q 8 .The CSS property "list-style-type" is used to:

- a) Set the color of the text within a list item.
- b) Change the font family of the list items.
- c) Define the style of the bullet points or numbering in a list.
- d) Adjust the spacing between list items.

Q 9 . The "display: inline" CSS property is used for block elements to:

- a) Make them appear on the same line as inline elements.
- b) Hide them from the page.
- c) Give them a fixed width and height.
- d) Apply a background image to them.

MCQs(Cont..)

Q 10. The CSS property "font-size" is used to:

- a) Set the color of the font.
- b) Define the width and height of an element.
- c) Control the size of the font.
- d) Set the font style (italic, bold, etc.)

.Q 11 In CSS, which of the following properties is used to specify the font family for an element?

- a) font-family
- b) font-style
- c) font-weight
- d) font-size

Q 12. Which Bootstrap plugin provides a popover that appears when the user hovers over an element?

- a) Tooltip
- b) Popover
- c) Collapse
- d) Scrollspy

MCQ s(Cont..)

Q 13. How does the Bootstrap grid system handle responsive design?

- a) It uses media queries to adapt the layout for different screen sizes.**
- b) It automatically scales images based on the device's screen resolution.**
- c) It hides elements on smaller screens to improve performance.**
- d) It uses JavaScript to detect the device's screen size.**

Q 14 Which of the following Bootstrap plugins is used to create responsive and interactive navigation bars?

- a) Typeahead**
- b) Scrollspy**
- c) Navbar**
- d) Tooltip**

Q 15 Which Bootstrap plugin allows you to create modal dialogs with custom content?

- a) Modal**
- b) Popover**
- c) Dropdown**
- d) Collapse**

MCQ s(Cont..)

Q 16 In the Bootstrap grid system, how many columns does the grid layout consist of?

- a) 6
- b) 9
- c) 12
- d) 15

Q 17 Which CSS classes are used to create a row in the Bootstrap grid system?

- a) .row
- b) .container
- c) .col
- d) .grid

Q 18 What class is used to make an element visible only on small devices in Bootstrap?

- a) .hidden-md
- b) .visible-sm
- c) .hidden-xs
- d) .visible-md

MCQ s(Cont..)

Q 19 What is the main purpose of the Bootstrap grid system?

- a) To create animations and transitions.
- b) To handle server-side processing.
- c) To manage the layout and responsiveness of web pages.
- d) To handle backend data storage.

Q 20 What is Bootstrap?

- a) A server-side scripting language.
- b) A front-end framework for web development.
- c) A database management system.
- d) A protocol for secure data transfer.