Bachelor Of Engineering
In
Information Technology

Semester Six, Third Year(Even semester)
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Offline 3rd Lecture

Padre Conceicao College of Engineering
Verna Goa 403722 India

Web Technology

RC 2019-20

Unit 1

UNIT 1

Topic	Subtopics
Introduction to Web	Web Architecture, Web Applications, Web servers, Web Browsers, Overview of HTTP
HTML	Elements, Attributes, Tags, Forms, Frames, Tables, Overview and features of HTML5
Cascading Style Sheets	Need for CSS, basic syntax and structure of CSS, using CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, Overview and features of CSS3.
XML	Introduction to XML, uses of XML, XML key components, DTD and Schemas, Transforming XML using XSL and XSL

UNIT 1 :Cascading Style Sheets

Refer

Web Technologies: HTML, Javascript, PHP, Java, JSP, ASP.NET, XML and AJAX, Black Book; Publisher: Dreamtech Press(2015) ; ISBN: 978-81-7722-997-4

Sr.No	Title
1	Need for CSS
2	basic syntax and structure of CSS
3	using CSS
4	background images
5	colors and properties
6	manipulating texts
7	using fonts
8	borders and boxes
9	margins
10	padding lists
11	positioning using CSS
12	Overview and features of CSS3.

Need for CSS(Cascading Style Sheets)

- CSS are text files that contain one or more rules in the form of property/value pairs to determine how elements in a Web page should be displayed. They were developed with the aim to create the structure ,look and feel of a Web page but the elements present on the Web page are handled separately.CSS deals with all the style-related aspects important to create a Web page.W3C(World Wide Web Consortium) has developed some specifications(or rules) to create and use style sheets. These specifications are called as the CSS specifications. The two versions of CSS specifications,CSS1 and CSS2.After the introduction of CSS,HTML elements that purely deal with style-related aspects, such as <u>,<centre>, and <strike> have been deprecated.W3C has recommended that in place of these HTML elements, their replacements should be used in CSS.

Basic syntax and structure of CSS

- The syntax of CSS is slightly different from that of HTML. In contrast to the angle brackets (< and >),equal signs, and quotation marks found in the HTML syntax, the CSS contains curly braces, colons, and semicolons. The syntax of a CSS rule is as follows:

Selector{property1:property1-value;property2:property2-value;property3:property3-value…..}

Selector is the element that the rule defines

Property1, property2, property3 are the properties(attributes)defined

for that element

property1-value, property2-value, property3-value are values assigned to these properties

The portion of the syntax enclosed within curly braces is termed as declaration.

Using CSS

- Using the preceding CSS rule syntax, we can create a CSS rule to set three background properties (background-color, background-image, background-repeat) for the <body> element in 3 declarations, as follows:

```
body{background-color:#0000ff; background-image:url(C:\Image.jpg);
background-repeat: repeat-x}
```

You can set these 3 properties in one declaration by separating them with spaces, using the shorthand CSS property named background ,as follows:

```
body{ background:#0000ff url(C:\Image.jpg) repeat-x }
```

- You can create cascading styles in a Web page in four ways:

1. Using inline styles
2. Using external style sheets
3. Using internal style sheets
4. Using style classes

Attributes of the <style> Element

Sr.No	Attribute	Description
1	dir	Gives the direction to directionally neutral text. You can set this attribute to ltr for left to right text direction or rtl for right to left text direction.
2	disabled	Specifies that the styles should not be applied initially. This attribute is a standalone attribute meaning that it is specified without assigning it a value.
3	lang	Indicates base language used for the element
4	media	Sets the media for style sheet definitions (multiple destinations are specified by separating each pair of destinations by a comma).You can set this attribute to screen (default value for the attribute),print , projection , braille , speech, or all
5	title	Allows the browser to build a menu of alternative style sheets. You can set this attribute to an alphanumeric value.
6	type	Specifies an essential attribute, which indicates the MIME type of the <style> element content. You can set this attribute to either text / css or text / javascript

Inline styles

- In the Inline Styles method, style for an HTML element is specified using its style attribute.
- Inline styles are useful when you want to define specific styles for individual elements present on a Web page.

Inline styles

InlineStyles.html

```
<html>
        <head><title>Inline Styles</title></head>
        <body>
        <table border="1">
        <caption><h2>Student Details</h2></caption>
        <th style="background-color:#800000">Name</th>
        <th style="background-color:#800000">Date of Birth</th>
        <th style="background-color:#800000">Address</th>
        <tr>
        <td style="background-color:#808080">Helen Rego</td>
        <td style="background-color:#808080">11-02-2021</td>
        <td style="background-color:#808080">Casa Rego,Margao,Salcete</td>
        </tr>
        <tr>
        <td style="background-color:#ffff00">Sarah Martins</td>
        <td style="background-color:#ffff00">14-03-2020</td>
        <td style="background-color:#ffff00">House no.203,Martins Villa,Quepem</td>
        </tr>
        <tr>
        <td style="background-color:#00ff00">Maty Philips</td>
        <td style="background-color:#00ff00">18-04-2019</td>
        <td style="background-color:#00ff00">House No.91,Philips House,Ponda</td>
        </tr>
        <tr>
        <td style="background-color:#808000">Frenny Jacob</td>
        <td style="background-color:#808000">12-05-2018</td>
        <td style="background-color:#808000">Flat No.64,Villa Jacob,Bardez</td>
        </tr>
        </table>
        </body>
</html>
```

output

Student Details

Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

External style sheets

An external style sheet is a separate document that contains only CSS rules.

An external style sheet has a .css extension.

External style sheets are used to apply uniform styles to all the Web pages.

For example, let's assume that you are creating a website that contains more than one Web page and you want the same look and feel for same type of HTML elements in all the Web pages. In such a situation, you can first create all the required CSS rules in an external style sheet and then link it to all the Web pages of the website.

Creating External style sheet

- You can create an external style sheet by creating a new ,blank document in a text editor, such as Notepad, and create your styles in the document. After creating your styles, you need to save the document with .css extension.
- After creating an external style sheet, you can use the styles added to the style sheet, in an HTML document. To do so, you need to link the style sheet to the HTML document (web page) by using the <link> element.

Style.css

```
body {background-color:#f0f8ff; font-family:Arial}/*background color is alice blue*/
a:link {color:#808080} /*initially you want the link to look grey */
a:visited {color:#0000ff}/*you want the link to look like blue after it is visited*/
a:hover {color:#00ff00}/*you want the link to look electric green once you hover the mouse over it*/
a:active {color:#ff0000}/*you want the link to look red when it is active*/
```

Linking an HTML Document to an External Style sheet

- You can link your Web page to an external style sheet by setting the href attribute of the <link> element to the name of the style sheet. The <link> element is added inside the <head> element of the HTML document.

ExternalStyleSheets.html

```
<html>
<head>
<title>External Style sheets</title>
<link rel="stylesheet" href="Style.css">
</head>
<body>
        <h1>External Style Sheet Example</h1>
        <a href=page1.html target="_blank">
        <h2>page 1</h2>
        <a hre=page2.html target="_blank">
        <h2>page 2</h2>
</body>
</html>
```

output

Internal style sheets

- Internal style sheets are not separate documents, rather they are styles, created inside an HTML document.
- An internal style sheet is a set of styles that is created as a part of an HTML document.
- These style sheets are useful when you want to apply similar styles to all the elements present on a Web page.
- Internal style sheets are created using the <style> element that is added inside the <head> element of the HTML document.

Internal style sheets

InternalStyleSheets.html

```
<html>
<head>
<title>Internal Style sheets</title>
<style type="text/css">
body {background-color:#f0f8ff; font-family:Arial}
a:link {color:#808080}
a:visited {color:#ffff00}
a:hover {color:#00ff00}
a:active {color:#ff0000}
</style>
</head>
<body>
        <h1>Internal Style Sheet Example</h1>
        <a href=page1.html target="_blank">
        <h2>page 1</h2>
        <a hre=page2.html target="_blank">
        <h2>page 2</h2>
</body>
</html>
```

Output

Using style classes

- In style classes method, you can create styles in the form of style classes in external or embedded style sheets. To apply a style defined in a style class to an HTML element, you can assign the class attribute of the HTML element to the name of the style class. You can create two types of style classes : universal and element specific. A universal style class starts with a dot operator (.) followed by the class name. The syntax to define a universal style class is as follows:

<style> .class name {class definition} </style>

An element specific style class starts with the element name, followed by a dot operator, which is followed by the class name. The syntax to define an element specific style class is as follows.

<style> Element name. Class name {class definition} </style>

Using style classes

StyleClasses.html

```
<html>
<head><title>Styles classes</title>
<style>
body {background-color:yellow}
th.color {background-color:pink}
.green {background-color:#008000}
</style></head>
        <body>
        <table border="1">
        <caption><h2>Student Details</h2></caption>
        <th class="color">Name</th>
        <th class="color">Date of Birth</th>
        <th class="color">Address</th>
        <tr>
        <td class="green">Helen Rego</td>
        <td class="green">11-02-2021</td>
        <td class="green">Casa Rego,Margao,Salcete</td>
        </tr>
        <tr>
        <td class="green">Sarah Martins</td>
        <td class="green">14-03-2020</td>
        <td class="green">House no.203,Martins Villa,Quepem</td>
        </tr>
        <tr>
        <td class="green">Maty Philips</td>
        <td class="green">18-04-2019</td>
        <td class="green">House No.91,Philips House,Ponda</td>
        </tr>
        <tr>
        <td class="green">Frenny Jacob</td>
        <td class="green">12-05-2018</td>
        <td class="green">Flat No.64,Villa Jacob,Bardez</td>
        </tr></table></body></html>
```

output

Student Details

Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Multiple styles

- Multiple styles can be defined by using the different methods to implement CSS. For this reason ,the use of several external style sheets results in cascading the styles, which is a combination of styles for various HTML elements. If multiple styles affect the same element, only the last one is used. You can link the external style sheets to the document as follows:

```
<LINK rel=stylesheet type="text/css" href="style1.css">
<LINK rel=stylesheet type="text/css" href="style2.css">
<LINK rel=stylesheet type="text/css" href="style3.css">
```

- If multiple conflicting styles are found in the external style sheets, the CSS recommendations allow users to select among several alternative style sheets using the rel attribute of the <STYLE> tag, which is combined with the TITLE attribute to select them by name.

```
<LINK rel="alternate stylesheet" type="text/css" href="style1.css" title="style1">
<LINK rel="alternate stylesheet" type="text/css" href="style2.css" title="style2">
<LINK rel=stylesheet type="text/css" href="style2.css">
```

Multiple styles are included in a page by using the various possible inclusion methods. The style closest to the content is applied when some conflict appears among styles.

Background property

The background property is a shorthand property for

1. background-color
2. background-image
3. background-position
4. background-size
5. background-repeat
6. background-origin
7. background-clip
8. background-attachment

Background-color property

BackgroundColor.html

```
<html>
        <head>
        <style>
        body{
                background-color:coral;
            }
        </style>
        </head>
        <body>
        <h1>Background color property</h1>
        <p>This is an example of Background color property</p>
        </body>
</html>
```

output

Background image property

- The background-image property specifies the image URL for the image logo.png in the format url(fileLocation)

BackgroundImage.html

```
<html>
        <head><title>Background Image</title>
        <style type="text/css">
        body{
                background-image:url(logo.png);
            }
        </style>
        </head>
        <body>
        <h1>Background Image Example</h1>
        <p>The image is the background</p>
        </body>
</html>
```

output

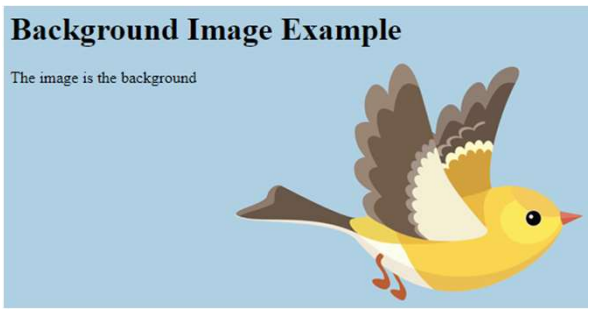
Background image property

Backgroundgif.html

```
<html>
        <head><title>Background Image</title>
        <style>
        body{
                background-image: url("bird.gif");
                background-color: #cccccc;

            }
        </style>
        </head>
        <body>
        <h1>Background Image Example</h1>
        <p>The image is the background</p>
        </body>
</html>
```

output



background-position property

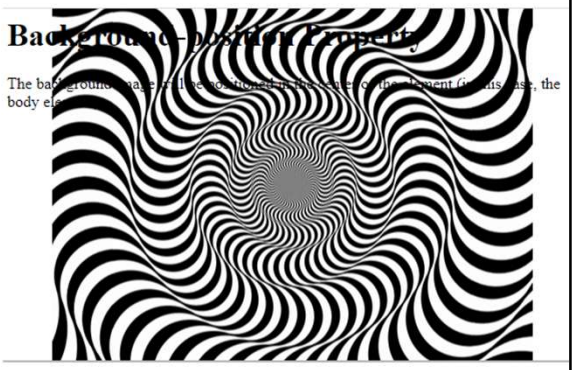
BackgroundPosition.html

```
<html>
<head>
<style>
body {
  background-image: url('bw.gif');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-position: center;
    }
</style>
</head>
<body>

<h1>Background-position Property</h1>
<p>The background image will be positioned in the center of the element (in this case, the body element).</p>

</body>
</html>
```

output



background-size property

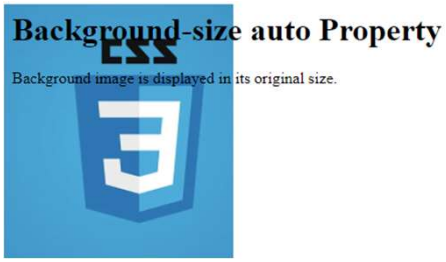
BackgroundSizeAuto.html

```
<html>
<head>
<style>
body {
  background: url(logo.png);
  background-repeat: no-repeat;
  background-size: auto;
    }
</style>
</head>
<body>

<h1>Background-size auto Property</h1>
<p>Background image is displayed in its original size.</p>

</body>
</html>
```

output



background-size pixel property

BackgroundSizePixel.html

```
<html>
<head>
<style>
body {
  background: url(logo.png);
  background-repeat: no-repeat;
  background-size: 300px 100px;
    }
</style>
</head>
<body>

<h1>Background-size pixel Property</h1>
<p>Background image size is displayed in pixels</p>

</body>
</html>
```

output

Background image size is displayed in pixels

background-repeat property

BackgroundRepeat.html

```
<html>
<head>
<style>
body {
  background-image: url("colors.gif");
  background-repeat: repeat-y;
    }
</style>
</head>
<body>

<h1>Background-repeat Property</h1>
<p>sets how a background image will be repeated.</p>

</body>
</html>
```

output

background-origin property

BackgroundOrigin.html

```
<html>
<head>
<style>
body {
  border: 10px dashed black;
  padding: 25px;
  background: url(bw.gif);
  background-repeat: no-repeat;
  background-origin: content-box;
    }
</style>
</head>
<body>

<h1>Background-origin Property</h1>
<p>specifies the origin position of a background image.</p>

</body>
</html>
```

output

background-clip property

- The background-clip property defines how far the background should extend within an element.

Value	Description
border-box	Default value. The background extends behind the border
padding-box	The background extends to the inside edge of the border
content-box	The background extends to the edge of the content box

background-clip Border-Box property

BackgroundClipBorderBox.html

```
<html>
<head>
<title>Border box</title>
<style>
.bkg{
        background-color: green;
        background-clip:border-box;
        text-align:center;
        border: 10px dashed black;
    }
</style>
</head>
<body>
<div class = "bkg">
            <h1>Background-clip Property</h1>
            <p>background extends to the outside edge of the border</p>
</div>
</body>
</html>
```

output

background-clip Padding-Box property

BackgroundClipPaddingBox.html

```
<html>
<head>
<title>padding box property</title>
<style>
.bkg{
        background-color: green;
        background-clip:padding-box;
        text-align:center;
        border: 10px dashed black;
    }
</style>
</head>
<body>
<div class = "bkg">
            <h1>Background-clip padding box Property</h1>
            <p>used to set the background inside the border</p>
</div>
</body>
</html>
```

output

background-clip Content-Box property

BackgroundClipContentBox.html

```
<html>
<head>
<title>content-box property</title>
<style>
.bkg{
        background-color: green;
        background-clip:content-box;
        padding: 15px;
        text-align:center;
        border: 10px dashed black;
    }
</style>
</head>
<body>
<div class = "bkg">
            <h1>Background-clip content-box Property</h1>
            <p>used to set the background color upto the content only</p>
</div>
</body>
</html>
```

output

background-clip Text property

BackgroundClipText.html

```
<html>
<head>
<title>text property</title>
<style>
.bkg{
        background-color: green;
        padding: 15px;
        text-align:center;
        border: 10px dashed black;
        background-clip: text;
        -webkit-background-clip: text;
        color: transparent;
      }
</style>
</head>
<body>
<div class = "bkg">
            <h1>Background-clip text Property</h1>
            <p>The background is painted within the foreground text</p>
</div>
</body>
</html>
```

output

background-clip Text property

BackgroundClipText.html

```
<html>
<head>
<title>text property</title>
<style>
.bkg{
        background-color: green;
        padding: 15px;
        text-align:center;
        border: 10px dashed black;
        background-clip: text;
        -webkit-background-clip: text;
        color: purple;
      }
</style>
</head>
<body>
<div class = "bkg">
            <h1>Background-clip text Property</h1>
            <p>The background is painted within the foreground text</p>
</div>
</body>
</html>
```

output

background-attachment property

- The background-attachment property sets whether a background image scrolls with the rest of the page, or is fixed.

Value	Description
scroll	The background image will scroll with the page. This is default
fixed	The background image will not scroll with the page
local	The background image will scroll with the element's contents

background-attachment scroll property

BackgroundAttachmentScroll.html

output

```
<html>
        <head><style>
        body {
                background-image: url("pinkflowers.png");
                background-repeat: no-repeat;
                background-position: left top;
                margin-right: 200px;
                background-attachment: scroll;
            }
        </style></head>
<body>
<h1>Background Attachment scroll property(default)</h1>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
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<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
<p>The background-image scrolls with the page. Try to scroll down.</p>
</body>
</html>
```
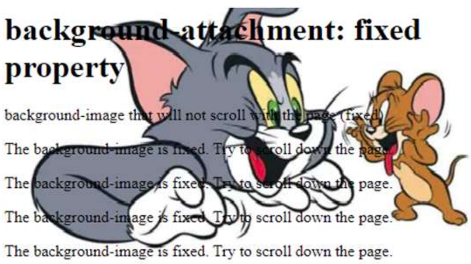

background-attachment Fixed property

BackgroundAttachmentFixed.html

output

```
<html>
        <head>
        <style>
        body {
                background-image: url("tnj.png");
                background-repeat: no-repeat;
                background-attachment: fixed;
            }
        </style>
        </head>
        <body>
        <h1>background-attachment: fixed property</h1>
        <p>background-image that will not scroll with the page (fixed)</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
<p>The background-image is fixed. Try to scroll down the page.</p>
</body>
</html>
```



background-attachment local property

When there is only a single scroll bar on the page, a *scroll* setting and a *local* setting behaves exactly the same because, under those circumstances, local refers to the entire space within the scrollable element. The difference between these two values comes when there are at least two scrollable areas on the page, one inside the other. The table below shows how different **background-attachment** value behaves when there are two scrollable areas:

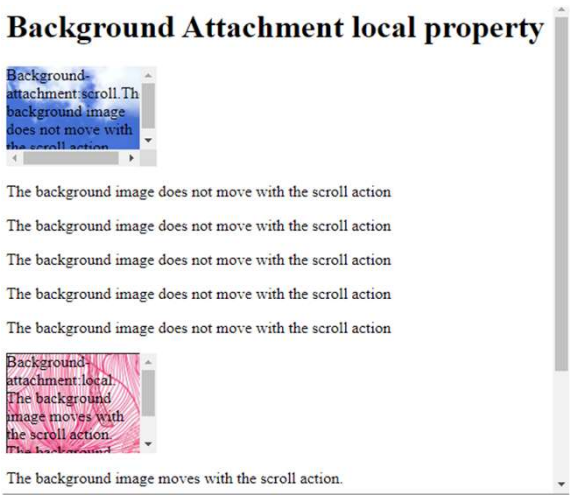
Value	Outer Scroll bar	Inner scroll bar
fixed	Does not move	Does not move
scroll	moves	Does not move
local	moves	moves

background-attachment scroll v/s local

BackgroundAttachmentLocal.html

```
<html><head><style>
        .first{
                background-image: url("sky.png");
                background-repeat: no-repeat;
                background-position: left top;
                margin-right: 200px;
                background-attachment: scroll;
                }
        .second{
                background-image: url("pinkflowers.png");
                background-repeat: no-repeat;
                background-position: left top;
                margin-right: 200px;
                background-attachment: local;
                }
        </style></head>
<body>
<h1>Background Attachment local property</h1>
<div  class="first" style="overflow-y:scroll;width:150px; height:100px">
Background-attachment:scroll.The background image does not move with the scroll action
</div>
<p>The background image does not move with the scroll action</p>
<p>The background image does not move with the scroll action</p>
<p>The background image does not move with the scroll action</p>
<p>The background image does not move with the scroll action</p>
<p>The background image does not move with the scroll action</p>
<div  class="second" style="overflow-y:scroll;width:150px; height:100px">
Background-attachment:local. The background image moves with the scroll action.
The background image moves with the scroll action.</div>
<p>The background image moves with the scroll action.</p>
<p>The background image moves with the scroll action.</p>
<p>The background image moves with the scroll action.</p>
<p>The background image moves with the scroll action.</p>
<p>The background image moves with the scroll action.</p>
</body></html>
```

output



manipulating texts

- You can set following text properties of an element –

Value	Description
color	The **color** property is used to set the color of a text
direction	used to set the text direction.
letter-spacing	used to add or subtract space between the letters that make up a word.
word-spacing	used to add or subtract space between the words of a sentence.
text-indent	used to indent the text of a paragraph.
text-align	used to align the text of a document.
text-decoration	used to underline, over line, and strikethrough text.
text-transform	used to capitalize text or convert text to uppercase or lowercase letters.
white-space	used to control the flow and formatting of text.
text-shadow	used to set the text shadow around a text.

text color

- The following example demonstrates how to set the text color. Possible value could be any color name in any valid format.

textcolor.html

```
<html>
   <head></head>
   <body>
      <p style = "color:red;">
         This text will be written in red.
      </p>
   </body>
</html>
```

output

This text will be written in red.

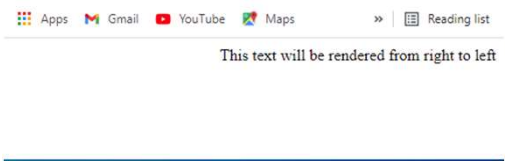
text direction

- The following example demonstrates how to set the direction of a text. Possible values are *ltr or rtl*.

textdirection.html

```
<html>
   <head>
   </head>

   <body>
      <p style = "direction:rtl;">
         This text will be rendered from right to left
      </p>
   </body>
</html>
```

output



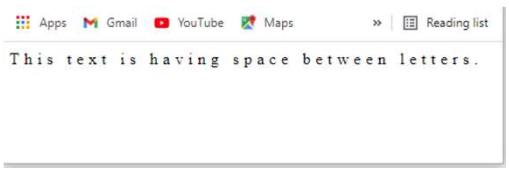
letter-spacing

- The following example demonstrates how to set the space between characters. Possible values are *normal or a number specifying space*..

textWordSpace.html

```
<html>
   <head>
   </head>

   <body>
      <p style = "letter-spacing:5px;">
         This text is having space between letters.
      </p>
   </body>
</html>
```

output



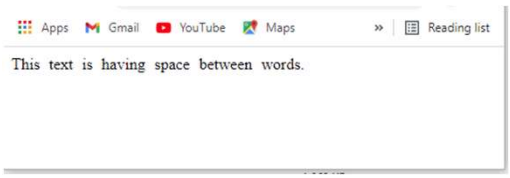
word-spacing

- The following example demonstrates how to set the space between words. Possible values are *normal or a number specifying space*.

textWordSpace.html

```
<html>
   <head>
   </head>

   <body>
      <p style = "word-spacing:5px;">
         This text is having space between words.
      </p>
   </body>
</html>
```

output



text-indent

- The following example demonstrates how to indent the first line of a paragraph. Possible values are *% or a number specifying indent space*.

textIndent.html

```
<html>
   <head>
   </head>

   <body>
      <p style = "text-indent:1cm;">
         This text will have first line indented by 1cm and this line will remain
         its actual position this is done by CSS text-indent property.
      </p>
   </body>
</html>
```

output

Bachelor Of Engineering
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Offline 4th Lecture

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Verna Goa 403722 India

text-align

- The following example demonstrates how to align a text. Possible values are *left, right, center, justify*.

textAlign.html

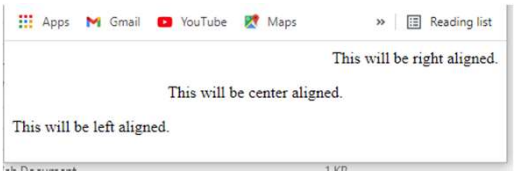
```
<html>
   <head>
   </head>

   <body>
      <p style = "text-align:right;">
         This will be right aligned.
      </p>

      <p style = "text-align:center;">
         This will be center aligned.
      </p>

      <p style = "text-align:left;">
         This will be left aligned.
      </p>
   </body>
</html>
```

output

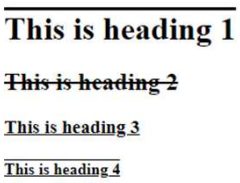


text-decoration property

textdecoration.html

```
<html>
        <head>
<title>Text Decoration</title>
<style>
h1{text-decoration:overline}
h2{text-decoration:line-through}
h3{text-decoration:underline}
h4{text-decoration:underline overline}
</style>
</head>
        <body>
        <h1>This is heading 1</h1>
        <h2>This is heading 2</h2>
        <h3>This is heading 3</h3>
        <h4>This is heading 4</h4>
        </body>
</html>
```

output

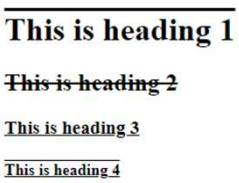


text-decoration-line property

textdecoration.html

```
<html>
        <head>
<title>Text Decoration</title>
<style>
h1{text-decoration-line:overline}
h2{text-decoration-line:line-through}
h3{text-decoration-line:underline}
h4{text-decoration-line:underline overline}
</style>
</head>
        <body>
        <h1>This is heading 1</h1>
        <h2>This is heading 2</h2>
        <h3>This is heading 3</h3>
        <h4>This is heading 4</h4>
        </body>
</html>
```

output

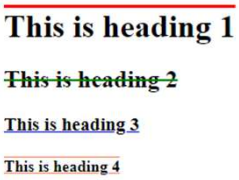


text-decoration-color

textdecorationColor.html

```
<html>
	<head>
<title>Text Decoration</title>
<style>
h1
{
text-decoration:overline;
text-decoration-color:red
}
h2
{
text-decoration:line-through;
text-decoration-color:green
}
h3
{
text-decoration:underline;
text-decoration-color:blue
}
h4
{
text-decoration:underline overline;
text-decoration-color:coral
}
</style>
</head>
	<body>
	<h1>This is heading 1</h1>
	<h2>This is heading 2</h2>
	<h3>This is heading 3</h3>
	<h4>This is heading 4</h4>
	</body>
</html>
```

output

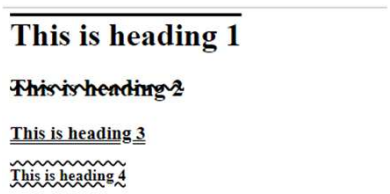


text-decoration-style property

textdecorationStyle.html

```
<html>
	<head>
<title>Text Decoration</title>
<style>
h1{text-decoration-line:overline;text-decoration-style:solid}
h2{text-decoration-line:line-through;text-decoration-style:wavy}
h3{text-decoration-line:underline;text-decoration-style:double}
h4{text-decoration-line:underline overline;text-decoration-style:wavy}
</style>
</head>
	<body>
	<h1>This is heading 1</h1>
	<h2>This is heading 2</h2>
	<h3>This is heading 3</h3>
	<h4>This is heading 4</h4>
	</body>
</html>
```

output

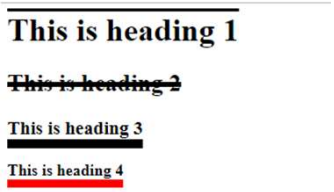


text-decoration-thickness property

textdecorationThickness.html

```
<html>
        <head>
<title>Text Decoration</title>
<style>
h1{text-decoration-line:overline;text-decoration-thickness:auto}
h2{text-decoration-line:line-through;text-decoration-thickness:5px}
h3{text-decoration-line:underline;text-decoration-thickness:50%}
h4{text-decoration:underline solid red 50%}
</style>
</head>
        <body>
        <h1>This is heading 1</h1>
        <h2>This is heading 2</h2>
        <h3>This is heading 3</h3>
        <h4>This is heading 4</h4>
        </body>
</html>
```

output



text-indent property

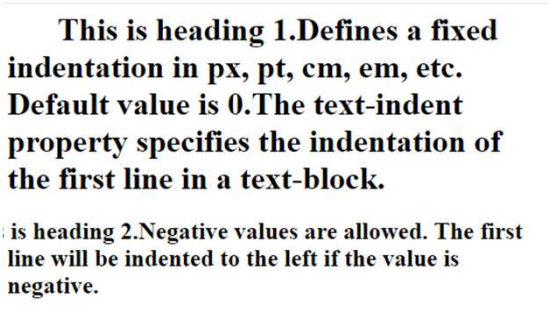
textMultipleIndent.html

```
<html>
        <head>
<title>Text Indent</title>
<style>
h1{text-indent:50px;}
h2{text-indent:-2em;}

</style>
</head>
        <body>
        <h1>This is heading 1.Defines a
        <h2>This is heading 2.Negative

        </body>
</html>
```

output



text-shadow property

textShadow.html

```
<html>
        <head>
<title>Text shadow</title>
<style>
h1{text-shadow:2px 2px #ff0000}
</style>
</head>
        <body>
        <h1>This is heading 1.The text shadow property</h1>
        </body>
</html>
```

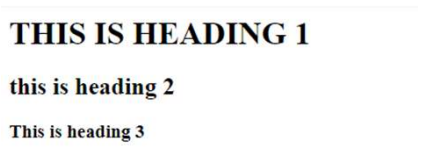
output

text-transform

textTransform.html

```
<html>
        <head>
<title>Text Decoration</title>
<style>
h1{text-transform:uppercase}
h2{text-transform:lowercase}
h3{text-transform:capitilize}
</style>
</head>
        <body>
        <h1>This is heading 1</h1>
        <h2>This is heading 2</h2>
        <h3>This is heading 3</h3>
        </body>
</html>
```

output

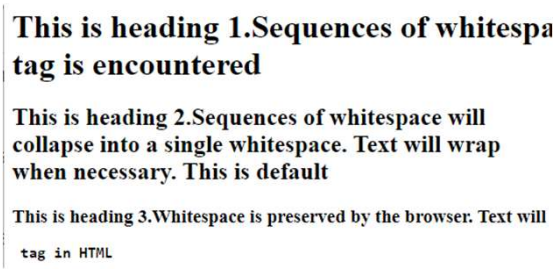


white-space

textWhiteSpace.html

```
<html>
        <head>
<title>Text Decoration</title>
<style>
h1{white-space:nowrap}
h2{white-space:normal}
h3{white-space:pre}
</style>
</head>
        <body>
        <h1>This is heading 1.Sequences of white
        <h2>This is heading 2.Sequences of white
        <h3>This is heading 3.Whitespace is pres
        </body>
</html>
```

output



Font property

- In HTML you can change the size, style and family of fonts using various CSS properties.CSS provides the following properties to perform different tasks that can be grouped to their functionalities related to fonts and text.
- Font-family
- Font-size
- Font-size-adjust
- Font-stretch
- Font-style
- Font-variant
- Font-weight
- font

Generic Font Families

- In CSS there are five generic font families:

1. **Serif** fonts have a small stroke at the edges of each letter. They create a sense of formality and elegance.
2. **Sans-serif** fonts have clean lines (no small strokes attached). They create a modern and minimalistic look.
3. **Monospace** fonts - here all the letters have the same fixed width. They create a mechanical look.
4. **Cursive** fonts imitate human handwriting.
5. **Fantasy** fonts are decorative/playful fonts

Difference Between Serif and Sans-serif Fonts

The CSS font-family Property

- In CSS, we use the font-family Property to specify the font of the text. If the font name is more than one word, it must be in quotation marks, like: "Times New Roman".
- The font-family Property should hold several font names as a “fallback” system, to ensure maximum compatibility between browsers/operating systems.
- Start with the font you want, and end with a generic family (to let the browser pick a similar font in the generic family, if no other fonts are available). The font names should be separated with comma.

The Font-family Property

fontFamily.html

```
<html>
        <head>
<title>Font Family</title>
<style>
.p1 {
  font-family: "Times New Roman", Times, serif;
}

.p2 {
  font-family: Arial, Helvetica, sans-serif;
}

.p3 {
  font-family: "Lucida Console", "Courier New", monospace;
}
</style>
</head>
        <body>
<h1>CSS font family</h1>
        <p class="p1">This paragraph is shown in the Times New Roman font.</p>
        <p class="p2">This paragraph is shown in the Arial font.</p>
        <p class="p3">This paragraph is shown in the Lucida Console font.</p>
        </body>
</html>
```

output

CSS font family

This paragraph is shown in the Times New Roman font.

This paragraph is shown in the Arial font.

This paragraph is shown in the Lucida Console font.

The Font-size Property

- The Font-size Property sets the size of the text. 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.

1. Absolute size:

a) Sets the text to a specified size

b) Does not allow a user to change the text size in all browsers (bad for accessibility reasons)

c) Absolute size is useful when the physical size of the output is known

2. Relative size:

a) Sets the size relative to surrounding elements

b) Allows a user to change the text size in browsers

Set Font Size With Pixels

- Setting the text size with pixels gives you full control over the text size

fontSize.html

```
<html>
        <head>
<title>Font size</title>
<style>
.h1 {
  font-size: 40px;
}

.h2 {
  font-size: 30px;
}

.p {
    font-size: 14px;
}
</style>
</head>
        <body>
<h1>This is to demonstrate CSS font size in heading 1 with font size set to 40 pixels</h1>
<h2>This is to demonstrate CSS font size in heading 2 with font size set to 20 pixels</h2>
<p class="p1">This paragraph is shown with font size set to 14 pixels.</p>
        </body>
</html>
```

output

This is to demonstrate CSS font size in heading 1 with font size set to 40 pixels

This is to demonstrate CSS font size in heading 2 with font size set to 20 pixels

This paragraph is shown with font size set to 14 pixels.

Set Font Size With em

- To allow users to resize the text (in the browser menu), many developers use em instead of pixels.
- 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*

Set Font Size With em

fontSizeEm.html

```
<html>
        <head>
<title>Font size em</title>
<style>
.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 */
}
</style>
</head>
        <body>
<h1>This is to demonstrate CSS font size in heading 1 with font size set to 2.5em</h1>
<h2>This is to demonstrate CSS font size in heading 2 with font size set to 1.875em</h2>
<p class="p1">This paragraph is shown with font size set to 0.875em.</p>
        </body>
</html>
```

output

Use a Combination of Percent and Em

fontSizePercentEm.html

```
<html>
        <head>
<title>Font size percent and em</title>
<style>
body{
font-size: 100%;
}
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 */
}
</style>
</head>
        <body>
<h1>This is to demonstrate CSS font size in heading 1 with font size set to 2.5em</h1>
<h2>This is to demonstrate CSS font size in heading 2 with font size set to 1.875em</h2>
<p>This paragraph is shown with font size set to 0.875em.</p>
<p>Specifying the font-size in percent and em displays the same size in all major browsers, and allows all browsers to resize the
text!</p>
        </body>
</html>
```

Use a Combination of Percent and Em

output

This is to demonstrate CSS font size in heading 1 with font size set to 2.5em

This is to demonstrate CSS font size in heading 2 with font size set to 1.875em

This paragraph is shown with font size set to 0.875em.

Specifying the font-size in percent and em displays the same size in all major browsers, and allows all browsers to resize the text!

The Font-size-adjust Property

- The Font-size-adjust Property gives you better control of the font size when the first selected font is not available. When a font is not available, the browser uses the second specified font. This could result in a big change for the font size. To prevent this, use the Font-size-adjust Property. The font-size-adjust property is used to change the aspect value of the text on a web page.
- All fonts have an "aspect value" which is the ration between the font height of a lowercase letter and the actual height of the font. This ratio is also known as x-height . When the browser knows the "aspect value" for the first selected font, the browser can figure out what font-size to use when displaying text with the second choice font.

The Font-size-adjust Property

- For example, the aspect value of the Verdana font is 0.58, which means that when the font size of 100px, the height of a character written in lowercase of Verdana font is 58 pixels.
- In the case of Times New Roman font, when the font size is 100px, its x-height is 46 pixels. This means that the aspect value of the Times New Roman font is 0.46.You can increase or decrease the height of the font by modifying its aspect value.

The Font-size-adjust Property

fontSizeAdjust.html

```
<html>
        <head>
<title>Font size percent and em</title>
<style>

p {
    font-size-adjust: 0.5;
}
</style>
</head>
        <body>
<h1>The font-size-adjust Property</h1>

<p>This paragraph is shown with font size adjust set to 0.5</p>
<p>By specifying the font-size-adjust property, the browser will adjust the font size to be the same regardless of the font family</p>
        </body>
</html>
```

The Font-size-adjust Property

output

The font-size-adjust Property

This paragraph is shown with font size adjust set to 0.5

By specifying the font-size-adjust property, the browser will adjust the font size to be the same regardless of the font family

The font-stretch property

- The font-stretch property allows you to make text narrower (condensed) or wider (expanded).It is used to change the width of a font. You can do this by specifying the following property values.

Value	Description
ultra-condensed	Makes the text as narrow as it gets
extra-condensed	Makes the text narrower than condensed, but not as narrow as ultra-condensed
condensed	Makes the text narrower than semi-condensed, but not as narrow as extra-condensed
semi-condensed	Makes the text narrower than normal, but not as narrow as condensed
normal	Default value. No font stretching
semi-expanded	Makes the text wider than normal, but not as wide as expanded
expanded	Makes the text wider than semi-expanded, but not as wide as extra-expanded
extra-expanded	Makes the text wider than expanded, but not as wide as ultra-expanded
ultra-expanded	Makes the text as wide as it gets

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The font-stretch property

fontStretch.html

```
<html>
<head>
<title>Font stretch</title>
<style>
p {
    font-stretch:condensed;
}
</style>
</head>
<body>
<h1>The font-stretch Property</h1>
<p>This property has no effect if the selected font does not offer condensed or expanded faces!</p>
</body>
</html>
```

output

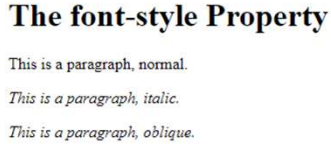
The font-style property

- The font-style property specifies the font style for a text.

fontStyle.html

```
<html>
<head>
<title>Font stretch</title>
<style>
p.a {
  font-style: normal;
}
p.b {
  font-style: italic;
}
p.c {
  font-style: oblique;
}
</style>
</head>
<body>
<h1>The font-style Property</h1>
<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>
```

output



The font-variant property

- 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. The font-variant property specifies whether or not a text should be displayed in a small-caps font.

The font-variant property

fontVariant.html

```
<html>
<head>
<title>Font variant</title>
<style>
p{
  font-variant: small-caps;
}
</style>
</head>
<body>
<h1>The font-variant Property</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

output

The font-weight property

- The font-weight property is used to specify the weight of the font, such as the font boldness or thickness.
- Font weight is a term used to signify the extent of boldness or thickness assigned to a character, when a particular font is applied to it.
- For example, the font weight of a character written in the Cooper Black font , A, is more than the same letter , A , written in the Arial font.

values of the font-weight property

Values	Description
normal	Defines normal characters. This is default
bold	Defines thick characters
bolder	Defines thicker characters
lighter	Defines lighter characters
100	Represents the thin font
200	Represents the extra light font
300	Represents the light font
400	Represents the normal font
500	Represents the medium font
600	Represents the semi bold font
700	Represents the bold font
800	Represents the extra bold font
900	Represents the black (heavy) font

The font-weight property

fontWeight.html

```
<html>
<head>
<title>Font weight</title>
<style>
p.light {
  font-weight: light;
}
p.bold {
  font-weight:  bold;
}
</style>
</head>
<body>
<h1>The font-weight Property</h1>
<p class="light">This is a paragraph, font weight is light.</p>
<p class="bold">This is a paragraph, font weight is bold.</p>
</body>
</html>
```

output

The font-weight Property

This is a paragraph, font weight is light.

This is a paragraph, font weight is bold.

Border Property

BorderColor.html

```
<HTML>
<HEAD>
<STYLE>
p.border1
{
border:groove #437845;
}
p.border2
{
border-style:ridge;
border-color: red black ;
}
p.border3
{
border-style:double;
border-width:4;
border-color:#123456 blue #894532;
}
p.border4
{
border-style:double;
border-width:4;
border-color:yellow green black rgb(250,0,255);
}
</STYLE>
</HEAD>
<BODY>
<P class="border1">This is a border with one color value</P>
<P class="border2">This is a border with two color values</P>
<P class="border3">This is a border with three color values</P>
<P class="border4">This is a border with four color values</P>
</BODY>
</HTML>
```

output

This is a border with one color value

This is a border with two color values

This is a border with three color values

This is a border with four color values

Border Image Property

- Border Image Property allows you to specify an image to be used as the border around an element.
- The border-image property is a shorthand property for:

1. Border-image-source
2. Border-image-slice
3. Border-image-width
4. Border-image-outset
5. Border-image-repeat

- Omitted values are set to their default values.

Border Image Property

Value	Description
Border-image-source	The path to the image to be used as a border
Border-image-slice	How to slice the border image
Border-image-width	The width of the border image
Border-image-outset	The amount by which the border image area extends beyond the border box
Border-image-repeat	Whether the border image should be repeated, rounded or stretched

Border-image-source

BorderImage.html

```
<html>
<head>
<style>
#borderimg1 {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(waterfall.png) 30 round;
}
#borderimg2 {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(yellow.png) 30 stretch;
}
</style>
</head>
<body>
<h1>The border-image Property</h1>
<p>The border-image property specifies an image to be used as the border around an element:</p>
<p id="borderimg1">Here, the image tiles to fill the area. The image is rescaled if necessary, to avoid dividing tiles.</p>
<p id="borderimg2">Here, the image is stretched to fill the area.</p>
<p>Here is the original image:</p>
<img src="waterfall.png">
</body>
</html>
```

Border-image-source

The border-image Property

The border-image property specifies an image to be used as the border around an element:

Here, the image tiles to fill the area. The image is rescaled if necessary, to avoid dividing tiles.

Here, the image is stretched to fill the area.

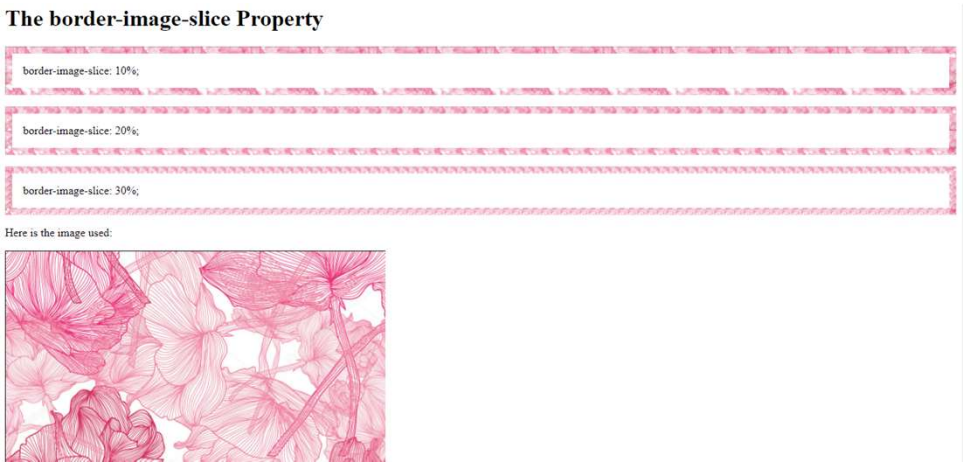
Here is the original image:

Border-image-slice

BorderImageSlice.html

```
<html>
<head>
<style>
#borderimg1 {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(pinkflowers.png) round;
  border-image-slice: 10%;
}
#borderimg2 {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(pinkflowers.png) round;
  border-image-slice: 20%;
}
#borderimg3 {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(pinkflowers.png) round;
  border-image-slice: 30%;
}
</style>
</head>
<body>
<h1>The border-image-slice Property</h1>
<p id="borderimg1">border-image-slice: 10%;</p>
<p id="borderimg2">border-image-slice: 20%;</p>
<p id="borderimg3">border-image-slice: 30%;</p>
<p>Here is the image used:</p>
<img src="pinkflowers.png">
</body>
</html>
```

Border-image-slice



Border-image-width

BorderImageWidth.html

```
<html><head><style>
#borderimg1 {
  border: 10px solid transparent;
  padding: 15px;
  border-image-source: url(sky.png);
  border-image-repeat: round;
  border-image-slice: 30;
  border-image-width: 10px;
}
#borderimg2 {
  border: 10px solid transparent;
  padding: 15px;
  border-image-source: url(sky.png);
  border-image-repeat: round;
  border-image-slice: 30;
  border-image-width: 20px;
}
#borderimg3 {
  border: 10px solid transparent;
  padding: 15px;
  border-image-source: url(sky.png);
  border-image-repeat: round;
  border-image-slice: 30;
  border-image-width: 30px;
}
</style></head><body>
<h1>The border-image-width Property</h1>
<p>The border-image-width property specifies the width of the border image:</p>
<p id="borderimg1">border-image-width: 10px;</p>
<p id="borderimg2">border-image-width: 20px;</p>
<p id="borderimg3">border-image-width: 30px;</p>
<p>Here is the original image:</p>
<img src="sky.png">
</body>
</html>
```

Border-image-width

Border-image-outset

```
<html>
<head>
<style>
body {
  background-color:#E7E9EB;
}
#myDIV {
  height:300px;
  background-color:#FFFFFF;
  border: 15px solid transparent;
  padding: 15px;
  border-image-source:url('yellow.png');
  border-image-repeat: stretch;
  border-image-slice: 30;
  border-image-width: 10px;
  border-image-outset: 10px;
  }
</style>
</head>
<body>
<h1>The border-image-outset Property</h1>
<div id="myDIV">
<p>A demonstration on how to set the border image.</p>
<p>We used this image:<br>
<img src="yellow.png">
</p>
</div>
</body>
</html>
```

BorderImageOutset.html

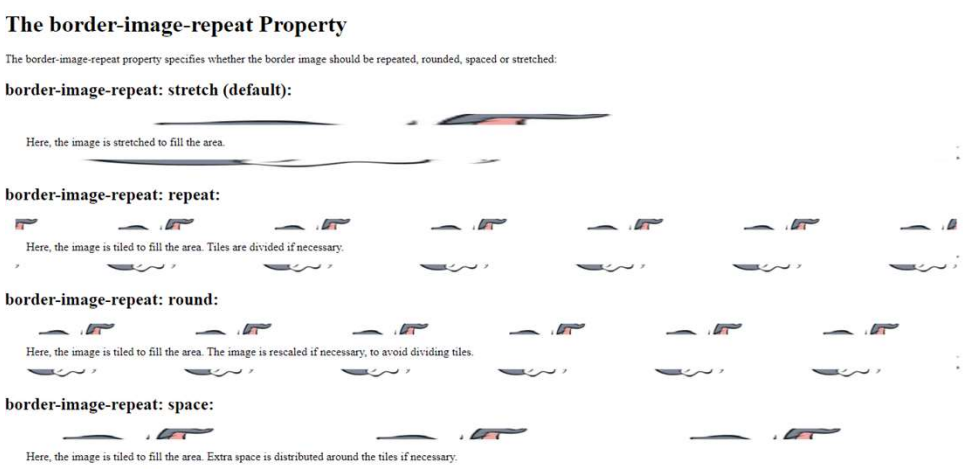
Border-image-outset

Border-image-repeat

BorderImageRepeat.html

```
<html><head><style>
#borderimg1 {
  border: 15px solid transparent;
  padding: 15px;
  border-image-source: url(tnj.png);
  border-image-repeat: stretch;
  border-image-slice: 30;
}#borderimg2 {
  border: 15px solid transparent;
  padding: 15px;
  border-image-source: url(tnj.png);
  border-image-repeat: repeat;border-image-slice: 30;
}#borderimg3 {
  border: 15px solid transparent;
  padding: 15px;
  border-image-source: url(tnj.png);
  border-image-repeat: round; border-image-slice: 30;
}#borderimg4 {
  border: 15px solid transparent;
  padding: 15px;
  border-image-source: url(tnj.png);
  border-image-repeat: space;border-image-slice: 30;
}</style></head><body><h1>The border-image-repeat Property</h1>
<p>The border-image-repeat property specifies whether the border image should be repeated, rounded, spaced or stretched:</p>
<h2>border-image-repeat: stretch (default):</h2>
<p id="borderimg1">Here, the image is stretched to fill the area.</p>
<h2>border-image-repeat: repeat:</h2>
<p id="borderimg2">Here, the image is tiled to fill the area. Tiles are divided if necessary.</p>
<h2>border-image-repeat: round:</h2>
<p id="borderimg3">Here, the image is tiled to fill the area. The image is rescaled if necessary, to avoid dividing tiles.</p>
<h2>border-image-repeat: space:</h2>
<p id="borderimg4">Here, the image is tiled to fill the area. Extra space is distributed around the tiles if necessary.</p>
<p>Here is the original image:</p><img src="tnj.png"></body></html>
```

Border-image-repeat



margins

- The CSS margin properties 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).
- CSS has properties for specifying the margin for each side of an element:

1. Margin-top
2. Margin-bottom
3. Margin-right
4. Margin-left

margins

- All the margin properties can have the following values:

1. auto - the browser calculates the margin
2. *length* - specifies a margin in px, pt, cm, etc.
3. *%* - specifies a margin in % of the width of the containing element
4. inherit - specifies that the margin should be inherited from the parent element

- Negative values are allowed.

margins

margin.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p
{
background-color: red;
}
p.margin
{
margin:200px 250px;
}
</STYLE>
</HEAD>
<BODY>
<P class="margin">This is a margin with top and bottom have 200 px and right and left have 250px</P>
</BODY>
</HTML>
```

margins

This is a margin with top and bottom have 200 px and right and left have 250px

Margin top

margintop.html

```
<HTML>
<BODY style="background:green;">
<P style="background:orange;padding: 5cm;border-width: 1em;border-style: solid;border-color: aqua;margin-top:5cm;">
This is a margin with 5cm from the top
</P>
</BODY>
</HTML>
```

Margin-bottom

marginbottom.html

```
<HTML>

<BODY style="background:green;">
<P style="background:orange;padding: 5cm;border-width: 1em;border-style: solid;border-color: aqua;margin-bottom: 10cm;">
This is a margin with 10cm from the bottom
</P>

</BODY>
</HTML>
```

Margin-bottom

Margin left

marginleft.html

```
<HTML>
<BODY style="background:green;">
<P style="background:orange;padding: 5cm;border-width: 1em;border-style: solid;border-color: aqua;margin-left: 5cm;">
This is a margin with 5cm from the left
</P>
</BODY>
</HTML>
```

Margin left

Margin right

marginright.html

```
<HTML>
<BODY style="background:green;">
<P style="background:orange;padding: 5cm;border-width: 1em;border-style: solid;border-color: aqua;margin-right: 10cm;">
This is a margin with 10cm from the right
</P>
</BODY>
</HTML>
```

Margin right

padding

- Padding is used to create space around an element's content, inside of any defined borders.
- The css padding properties 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).

padding

- CSS has properties for specifying the padding for each side of an element:
- Padding-top
- Padding-right
- Padding-bottom
- Padding-left

padding

padding.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p
{
background-color:red;
}
p.padding
{
padding-top:50px;
padding-bottom:50px;
padding-right:25px;
padding-left:25px;
}
</STYLE>
</HEAD>

<BODY>

<P class="padding">padding with top and bottom are 50px, right and left are 25px </P>
</BODY>

</HTML>
```

padding

Padding bottom

paddingright.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p.padding {padding-bottom:2cm;}
p.padding2 {padding-bottom:25%;}
</STYLE>
</HEAD>
<BODY>
<P class="padding">This  is a paragraph with padding 2cm</P>
<P class="padding2">This is a paragraph with padding 25%</P>
</BODY>
</HTML>
```

Padding bottom

This is a paragraph with padding 2cm

This is a paragraph with padding 25%

Padding top

paddingtop.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p
{
border: double #FF0000;
}
</STYLE>
<SCRIPT type="text/javascript">
function changePadding()
{
document.getElementById("p1").style.paddingTop="5cm";
}
</SCRIPT>
</HEAD>
<BODY>
<P id="p1">This is a paragraph with top padding 5</P>
<INPUT type="button" onclick="changePadding()"
value="top padding" />
</BODY>
</HTML>
```

Padding top

Padding left

paddingleft.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p.padding {padding-left: 4cm;}
p.padding2 {padding-left: 25%;}
</STYLE>
</HEAD>
<BODY>
<P class="padding">This is a paragraph with padding 2cm</P>
<P class="padding2">This is a paragraph with padding 25 %</P>
</BODY>
</HTML>
```

Padding left

This is a paragraph with padding 2cm

This is a paragraph with padding 25 %

Padding right

paddingright.html

```
<HTML>
<HEAD>
<STYLE type="text/CSS">
p
{
border: double #FF0000;
}
</STYLE>
<SCRIPT type="text/javascript">
function rightPadding()
{
document.getElementById("p1").style.paddingRight="20cm";
}
</SCRIPT>
</HEAD>
<BODY>
<P id="p1">padding padding padding padding padding</P>
<INPUT type="button" onclick="rightPadding()" value="Right padding" />
</BODY>
</HTML>
```

Padding right

Right padding

positioning using CSS

- positioning property specifies the type of positioning method used for an element .
- There are five different position values:

1. Static
2. Relative
3. fixed
4. Absolute
5. sticky

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:

position: static

positionStatic.html

```
<html>
<head>
<style>
div.static {
  position: static;
  border: 3px solid #73AD21;
}
</style>
</head>
<body>

<h2>position: static;</h2>

<p>An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:</p>

<div class="static">
This div element has position: static;
</div>

</body>
</html>
```

position: static output

position: static;

An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:

This div element has position: static;

position: relative

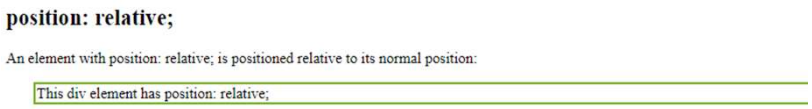
- An element with position: relative is positioned relative to its normal position.
- Setting the top, right, bottom, and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.

position: relative

positionRelative.html

```
<html>
<head>
<style>
div.relative {
  position: relative;
  left: 30px;
  border: 3px solid #73AD21;
}
</style>
</head>
<body>

<h2>position: relative;</h2>

<p>An element with position: relative; is positioned relative to its normal position:</p>

<div class="relative">
This div element has position: relative;
</div>

</body>
</html>
```

position: relative output



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.
- Notice the fixed element in the lower-right corner of the page.

position: fixed

positionFixed.html

```
<html>
<head>
<style>
div.fixed {
  position: fixed;
  bottom: 0;
  right: 0;
  width: 300px;
  border: 3px solid #73AD21;
}
</style>
</head>
<body>

<h2>position: fixed;</h2>

<p>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:</p>

<div class="fixed">
This div element has position: fixed;
</div>

</body>
</html>
```

position: fixed output

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:

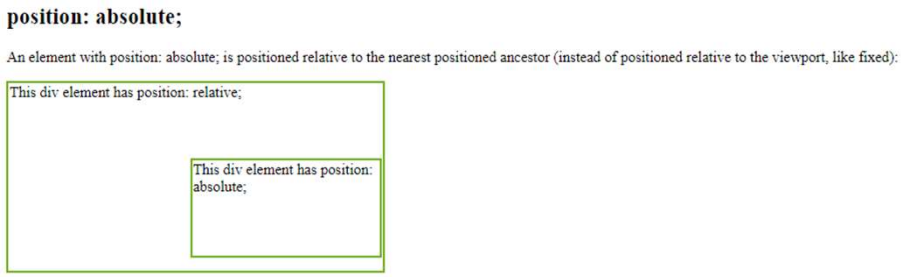
position: absolute

- An element with position: absolute is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed).
- If an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.
- Absolute positioned elements are removed from the normal flow, and can overlap elements.

position: absolute

```
<html>
<head><style>
div.relative {
  position: relative;
  width: 400px;
  height: 200px;
  border: 3px solid #73AD21;
}
div.absolute {
  position: absolute;
  top: 80px;
  right: 0;
  width: 200px;
  height: 100px;
  border: 3px solid #73AD21;
}
</style></head>
<body>
<h2>position: absolute;</h2>
<p>An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed):</p>
<div class="relative">This div element has position: relative;
  <div class="absolute">This div element has position: absolute;</div>
</div>
</body>
</html>
```

position: absolute output



Overview of CSS3

- CSS3 has been split into "modules". It contains the "old CSS specification" (which has been split into smaller pieces). In addition, new modules are added.
- Some of the most important CSS3 modules are:

1. Selectors
2. Box Model
3. Backgrounds and Borders
4. Image Values and Replaced Content
5. Text Effects
6. 2D/3D Transformations
7. Animations
8. Multiple Column Layout
9. User Interface

- Most of the new CSS3 properties are implemented in modern browsers.

features of CSS3

Sr.No	Features
1	CSS Animations and Transitions
2	Calculating Values With calc()
3	Advanced Selectors
4	Generated Content and Counters
5	Gradients
6	Webfonts
7	Box Sizing
8	Border Images
9	Media Queries
10	Multiple Backgrounds
11	CSS Columns

Assignment 1

- Q3) Write an HTML code to display the CSS text decoration line property for the following: (5 marks)
- Your Grandparent names
- Your Parent names
- Your Uncle/Aunty names
- Your Brothers names
- Your Sisters names

- *Assignment Announced to students : AA :30th March 2022*
- *Assignment to be Submitted by students : AS: 18th April 2022*