

UNIT 2 CASCADING STYLE SHEETS

INTRODUCTION

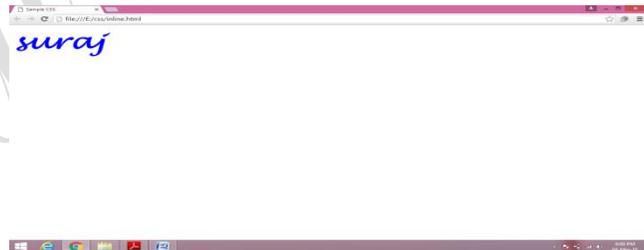
XHTML style sheets are called *cascading* style sheets because they can be defined at three different levels to specify the style of a document. Lower level style sheets can override higher level style sheets, so the style of the content of a tag is determined, in effect, through a cascade of style-sheet applications.

LEVELS OF STYLE SHEETS

- The three levels of style sheets, in order from lowest level to highest level, are inline, document level, and external.
- **Inline style sheets** apply to the content of a single XHTML element.
- **Document-level style sheets** apply to the whole body of a document.
- **External style sheets** can apply to the bodies of any number of documents.
- Inline style sheets have precedence over document style sheets, which have precedence over external style sheets.
- Inline style specifications appear within the opening tag and apply only to the content of that tag.
- Document-level style specifications appear in the document head section and apply to the entire body of the document.
- External style sheets stored separately and are referenced in all documents that use them.
- External style sheets are written as text files with the MIME type `text/css`.
- They can be stored on any computer on the Web. The browser fetches external style sheets just as it fetches documents.
- The `<link>` tag is used to specify external style sheets. Within `<link>`, the `rel` attribute is used to specify the relationship of the linked-to document to the document in which the link appears. The `href` attribute of `<link>` is used to specify the URL of the style sheet document ...

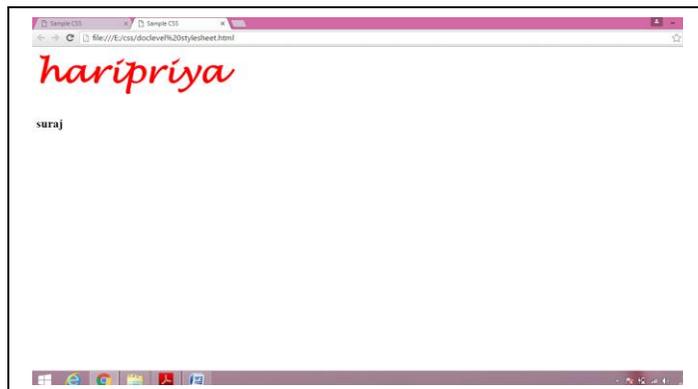
//inline stylesheet.html

```
<html>
<head>
<title>Sample CSS</title>
</head>
<h1 style ="font-family: 'Lucida Handwriting';
font-size: 50pt;
color: Blue;">
suraj</h1>
</html>
```



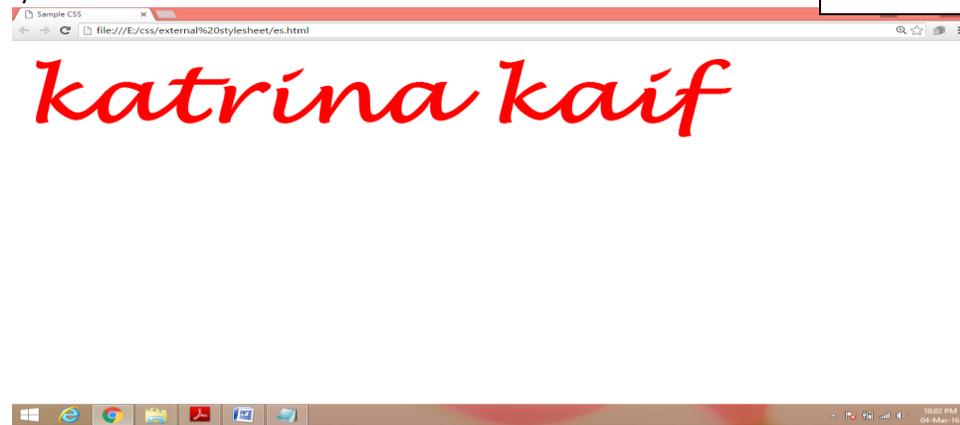
//documentlevelstylesheet.html

```
<html >
<head>
<title>Sample CSS</title>
<style type = "text/css">
h1
{ font-family: 'Lucida Handwriting';
font-size: 50pt;
color: Red;
}
```



```
</style>
</head>
<h1>haripriya</h1>
<h2>suraj</h2>
</html>
//external style sheet
<html>
<head>
<title>Sample CSS</title>
<link rel = "stylesheet" type = "text/css" href = "Style1.css" />
</head>
<h1>katrina kaif</h1>
</html>
```

```
//style1.css
h1
{
font-family: 'Lucida Handwriting';
font-size: 50pt;
color: Red;
}
```



STYLE SPECIFICATION FORMATS

Inline Style Specification:

Style = "Property1 : Value1; Property2 : Value2; Property3 : Value3; Property_n : Value_n;"

Document Style Specification:

`<style type = "text/css"> Rule list </style>` Each style rule in a rule list has two parts: a selector, which indicates the tag or tags affected by the rule, and a list of property–value pairs. The list has the same form as the quoted list for inline style sheets, except that it is delimited by braces rather than double quotes. So, the form of a style rule is as follows:

Selector { *Property1 : Value1; Property2 : Value2; Property3 : Value3; Property_n : Value_n;* }

SELECTOR FORMS

Simple Selector Forms:

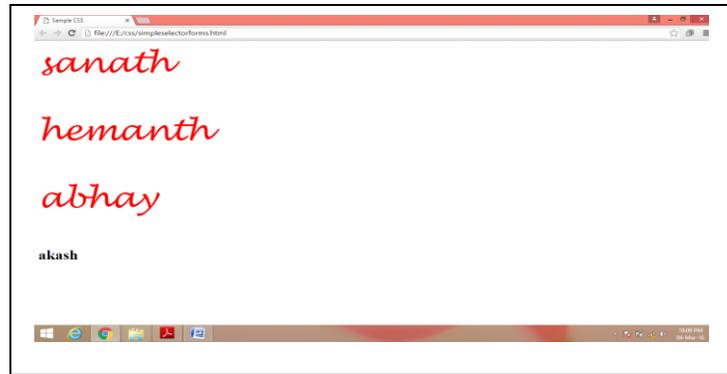
In case of simple selector, a tag is used. If the properties of the tag are changed, then it reflects at all the places when used in the program. The selector can be any tag. If the new properties for a tag are not mentioned within the rule list, then the browser uses default behaviour of a tag.

```
<html>
<head>
<title>Sample CSS</title>
<style type = "text/css">
p
{ font-family: 'Lucida Handwriting'; font-size: 50pt;
```

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Prepared by: Suraj B.S., DCS&E, B.E, M.Tech

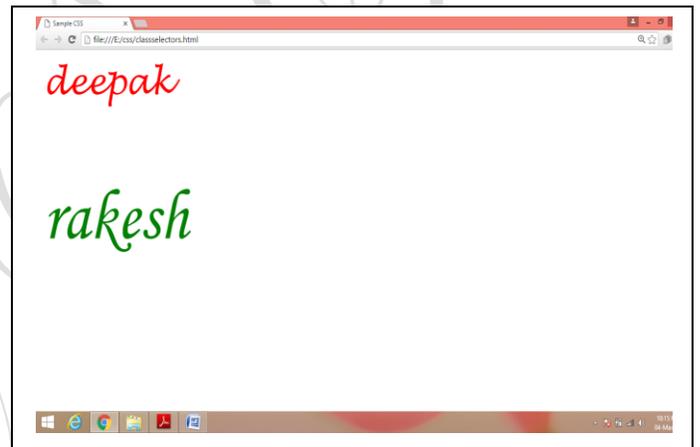
```
color: Red; }
</style>
</head>
<body>
<p>sanath</p>
<p>hemanth</p>
<p>abhay</p>
<h1>akash</h1>
</body>
</html>
```



Class Selectors:

In class selector, it is possible to give different properties for different elements

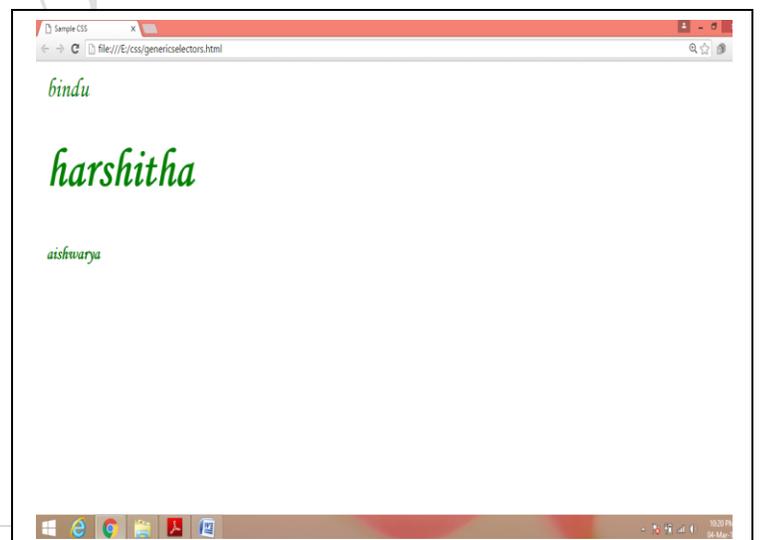
```
<html>
<head>
<title>Sample CSS</title>
<style type = "text/css">
p.one
{ font-family: 'Lucida Handwriting'; font-size: 25pt;
color: Red; }
p.two
{ font-family: 'Monotype Corsiva'; font-size: 50pt;
color: green; }
</style>
</head>
<body>
<p class = "one">deepak</p>
<p class = "two">rakesh</p>
</body>
</html>
```



Generic Selectors:

In case of generic selector, when the class is created, it would not be associated to any particular tag. In other words, it is generic in nature.

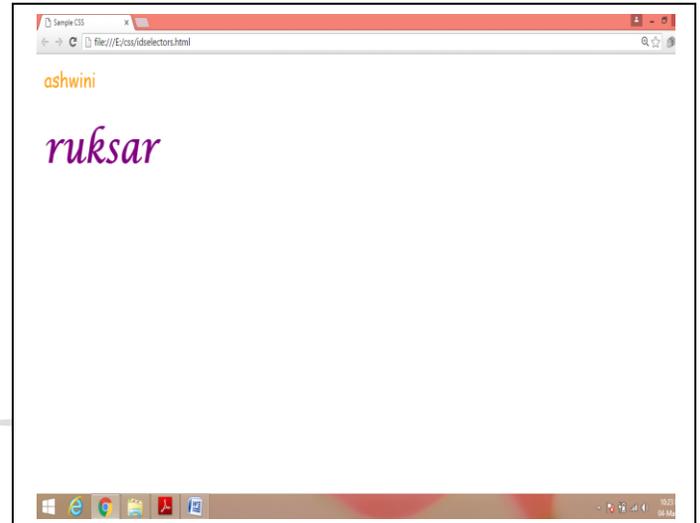
```
<html>
<head>
<title>Sample CSS</title>
<style type = "text/css">
.one
{ font-family: 'Monotype Corsiva'; color: green; }
</style>
</head>
<body>
<p class = "one">bindu</p>
<h1 class = "one">harshitha</h1>
<h6 class = "one">aishwarya</h6>
</body>
</html>
```



id Selectors:

An id selector allows the application of a style to one specific element.

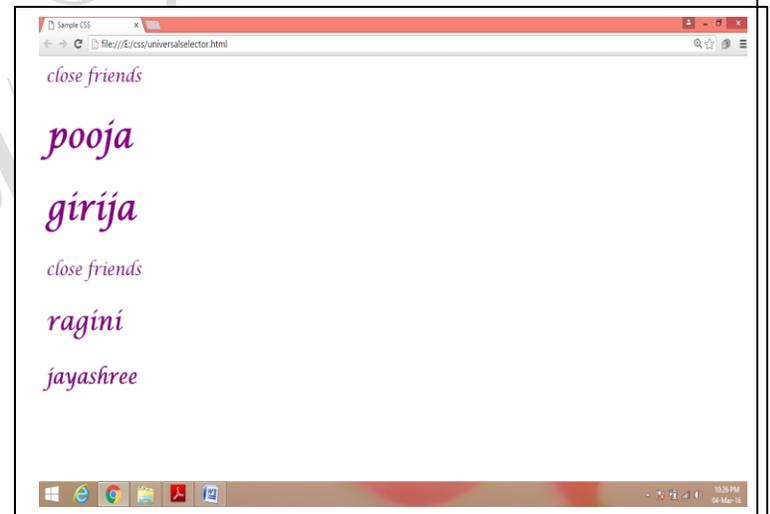
```
<html>
<head>
  <title>Sample CSS</title>
  <style type = "text/css">
    #one { font-family: 'lucida calligraphy'; color: purple; }
    #two { font-family: 'comic sans ms'; color: orange; }
  </style>
</head>
<body>
  <p id = "two">ashwini</p>
  <h1 id = "one">ruksar</h1>
</body>
</html>
```



Universal Selectors:

The universal selector, denoted by an asterisk (*), applies its style to all elements in a document.

```
<html>
<head>
<title>Sample CSS</title>
<style type = "text/css">
  *
  { font-family: 'lucida calligraphy'; color: purple; }
</style>
</head>
<body>
<p>close friends</p>
<h1>pooja</h1>
  <h1>girija</h1>
<p>close friends</p>
  <h2>ragini</h2>
  <h3>jayashree</h3>
</body>
</html>
```



Pseudo Classes:

Pseudo class selectors are used if the properties are to be changed dynamically. For example: when mouse movement happens, in other words, hover happens or focus happens.

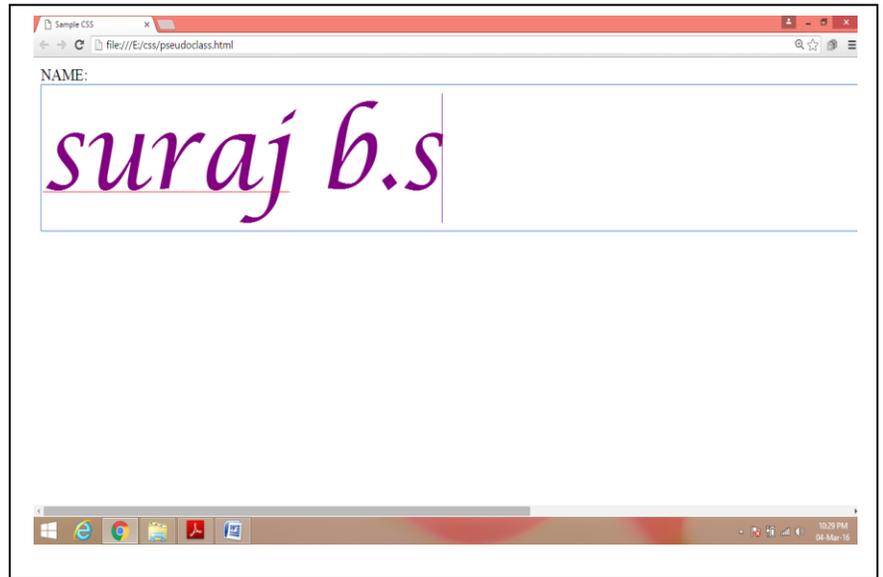
```
<html>
<head>
  <title>Sample CSS</title>
  <style type = "text/css">
```

WEB TECHNOLOGIES NOTES FOR 6TH SEMESTER

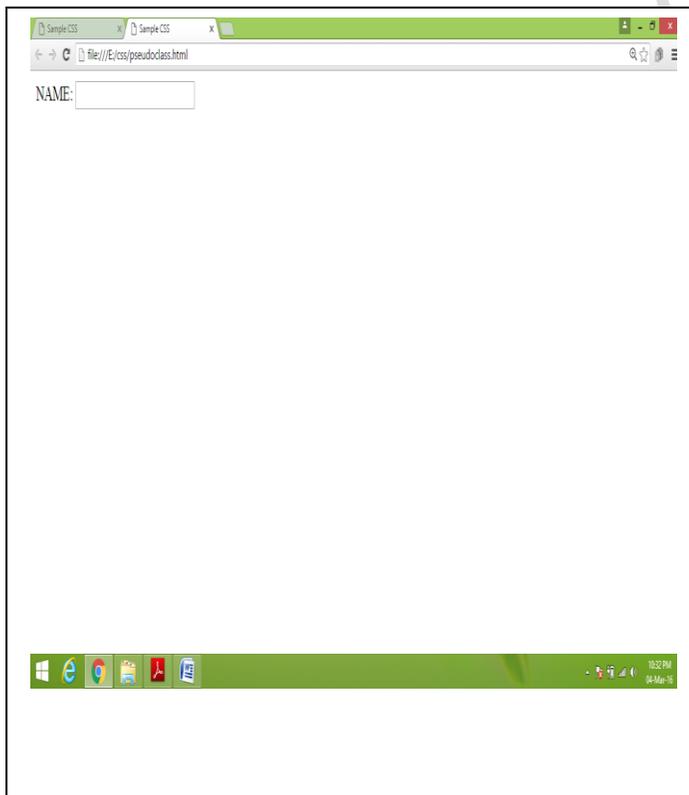
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```
input:focus { font-family: 'lucida  
calligraphy';  
color: purple; font-size:100; }  
input:hover { font-family: 'lucida  
handwriting';  
color: violet; font-size:40; }  
</style>  
</head>  
<body>  
<form action = " ">  
<p>  
<label> NAME: <input type = "text" />  
</label>  
</p>  
</form>  
</body>  
</html>
```

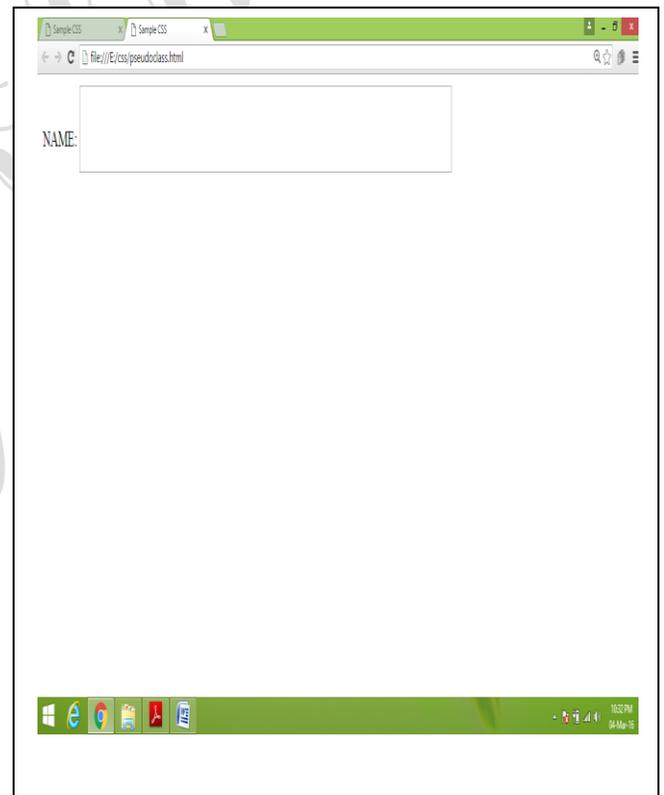
3



1



2



PROPERTY VALUE FORMS

CSS includes 60 different properties in seven categories: fonts, lists, alignment of text, margins, colours, backgrounds, and borders. Property values can appear in a variety of forms.

- Keyword property values are used when there are only a few possible values and they are predefined.
- A number value can be either an integer or a sequence of digits with a decimal point and can be preceded by a sign (+ or -).
- Length values are specified as number values that are followed immediately by a two-character abbreviation of a unit name. The possible unit names are px, for pixels; in, for inches; cm, for centimeters; mm, for millimeters; pt, for points.
- Percentage values are used to provide a measure that is relative to the previously used measure for a property value. Percentage values are numbers that are followed immediately by a percent sign (%). Percentage values can be signed. If preceded by a plus sign, the percentage is added to the previous value; if negative, the percentage is subtracted.
- There can be no space between `url` and the left parenthesis.
- Color property values can be specified as color names, as six-digit hexadecimal numbers, or in RGB form. RGB form is just the word `rgb` followed by a parenthesized list of three numbers that specify the levels of red, green, and blue, respectively. The RGB values can be given either as decimal numbers between 0 and 255 or as percentages. Hexadecimal numbers must be preceded with pound signs (#), as in `#43AF00`.

FONT PROPERTIES

Font Families:

The `font-family` property is used to specify a list of font names. The browser uses the first font in the list that it supports. For example, the property: **font-family: Arial, Helvetica, Futura** tells the browser to use Arial if it supports that font. If not, it will use Helvetica if it supports it. If the browser supports neither Arial nor Helvetica, it will use Futura if it can. If the browser does not support any of the specified fonts, it will use an alternative of its choosing. If a font name has more than one word, the whole name should be delimited by single quotes, as in the following example:

font-family: 'Times New Roman'

Font Sizes:

The `font-size` property does what its name implies. For example, the following property specification sets the font size for text to 10 points: **font-size: 10pt** Many relative `font-size` values are defined, including `xx-small`, `x-small`, `small`, `medium`, `large`, `x-large`, and `xx-large`. In addition, `smaller` or `larger` can be specified. Furthermore, the value can be a percentage relative to the current font size.

Font Variants:

The default value of the `font-variant` property is `normal`, which specifies the usual character font. This property can be set to `small-caps` to specify small capital characters. These characters are all uppercase, but the letters that are normally uppercase are somewhat larger than those that are normally lowercase.

Font Styles:

The `font-style` property is most commonly used to specify italic, as in **font-style: italic**

Font Weights:

The `font-weight` property is used to specify the degree of boldness, as in **font-weight: bold** Besides `bold`, the values `normal`, `bolder`, and `lighter` can be specified. Specific numbers also

WEB TECHNOLOGIES NOTES FOR 6TH SEMESTER

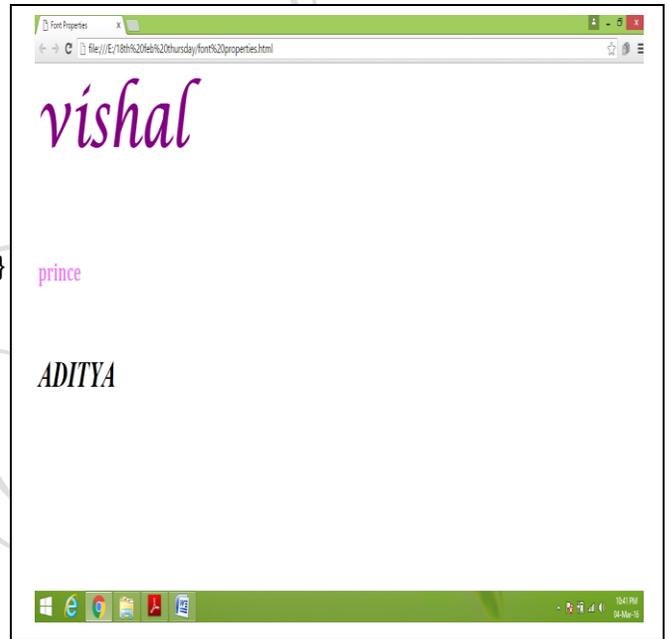
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can be given in multiples of 100 from 100 to 900, where 400 is the same as `normal` and 700 is the same as `bold`.

Font Shorthands:

If more than one font property must be specified, the values can be stated in a list as the value of the `font` property. The order in which the property values are given in a `font` value list is important. The order must be as follows: The font names must be last, the font size must be second to last, and the font style, font variant, and font weight, when they are included, can be in any order but must precede the font size and font names. **font: bold 14pt 'Times New Roman**

```
<html>
<head>
<title>Font Properties</title> </head>
<style type = "text/css">
p.one
{ font-family: 'lucida calligraphy'; font-weight:bold;
font-size:75pt; color: purple; }
h1.two
{ font-family: 'cambria'; color: violet; font-style:italics; }
p.three { font: small-caps italic bold 50pt 'times new
roman' }
</style>
</head>
<body>
<p class = "one">vishal</p>
<h1 class = "two">prince</h1>
<p class = "three">aditya</p>
</body>
</html>
```



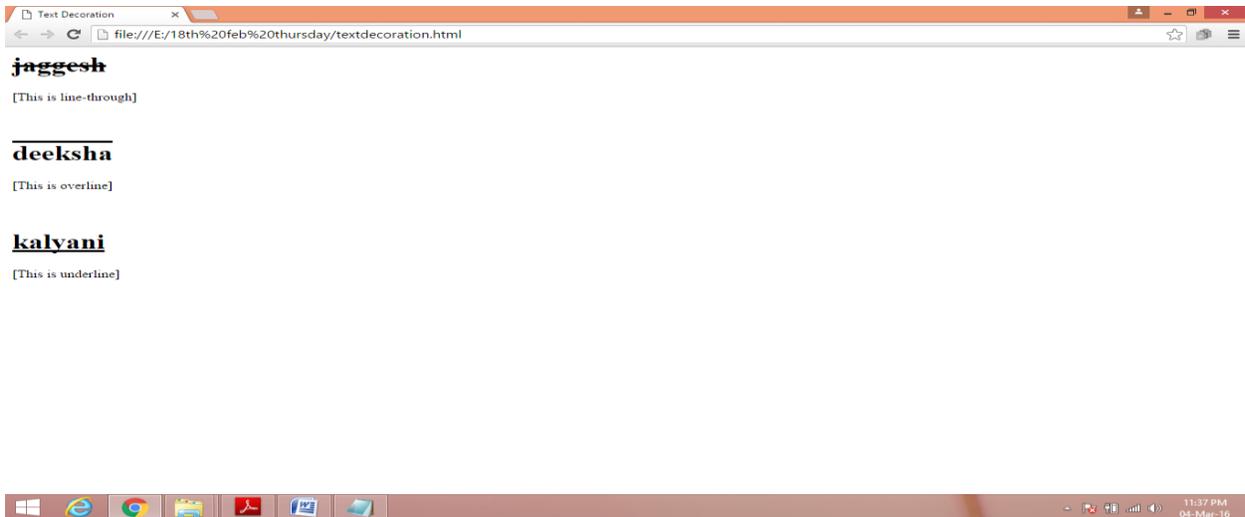
Text Decoration:

The `text-decoration` property is used to specify some special features of text. The available values are `line-through`, `overline`, `underline`, and `none`, which is the default

```
<html>
<head>
<title>Text Decoration</title>
<style type = "text/css">
h1.one {text-decoration: line-through;}
h1.two {text-decoration: overline;}
h1.three {text-decoration: underline;}
</style>
</head>
<body>
<h1 class = "one">jaggesh</h1><p>[This is line-through]</p><br/>
<h1 class = "two">deeksha</h1><p>[This is overline]</p><br/>
<h1 class = "three">kalyani</h1><p>[This is underline]</p><br/>
</body>
</html>
```

WEB TECHNOLOGIES NOTES FOR 6TH SEMESTER

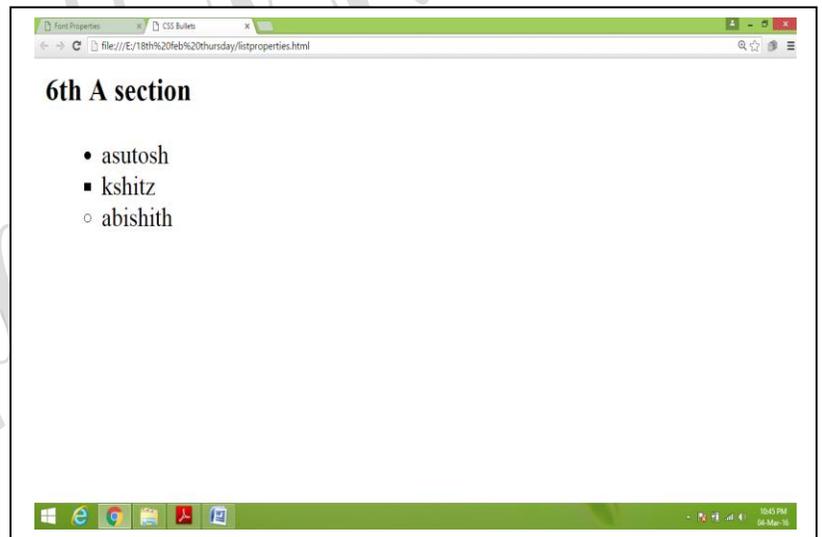
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LIST PROPERTIES

Two presentation details of lists can be specified in XHTML documents: the shape of the bullets that precede the items in an unordered list and the sequencing values that precede the items in an ordered list. The `list-style-type` property is used to specify both of these. The `list-style-type` property of an unordered list can be set to `disc`, `circle`, `square`, or `none`.

```
<html>
<head>
<title>CSS Bullets</title>
<style type = "text/css">
li.one {list-style-type:disc}
li.two{list-style-type:square}
li.three{list-style-type:circle}
</style>
</head>
<body>
<h3>6th A section</h3>
<ul>
<li class = "one"> asutosh</li>
<li class = "two">kshitz </li>
<li class = "three"> abishith</li>
</ul>
</body>
</html>
```



Bullets in unordered lists are not limited to discs, squares, and circles. Any image can be used in a list item bullet. Such a bullet is specified with the `list-style-image` property, whose value is specified with the `url` form.

```
<html>
<head>
<title>CSS Bullets-Image</title>
<style type = "text/css">
li.image {list-style-image: url(bullet.png);
font-size:25pt;}
</style>
</head>
<body>
<ul>
<li class = "image"> asutosh</li>
</ul>
</body>
</html>
```

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```
</style >
</head>
<body>
<h1>sixth sem cs</h1>
<ul>
<li class = "image"> archana</li>
<li class = "image"> ashwini</li>
<li class = "image"> aishwarya</li>
<li class = "image"> nisha</li>
</ul>
</body>
</html>
```

sixth sem cs

- archana
- ashwini
- aishwarya
- nisha



COLOR

Color Groups:

Three levels of collections of colours might be used by an XHTML

document. The smallest useful set of colours includes only those that have standard names and are guaranteed to be correctly displayable by all browsers on all color monitors. This collection of 17 colours is called the *named colours*.

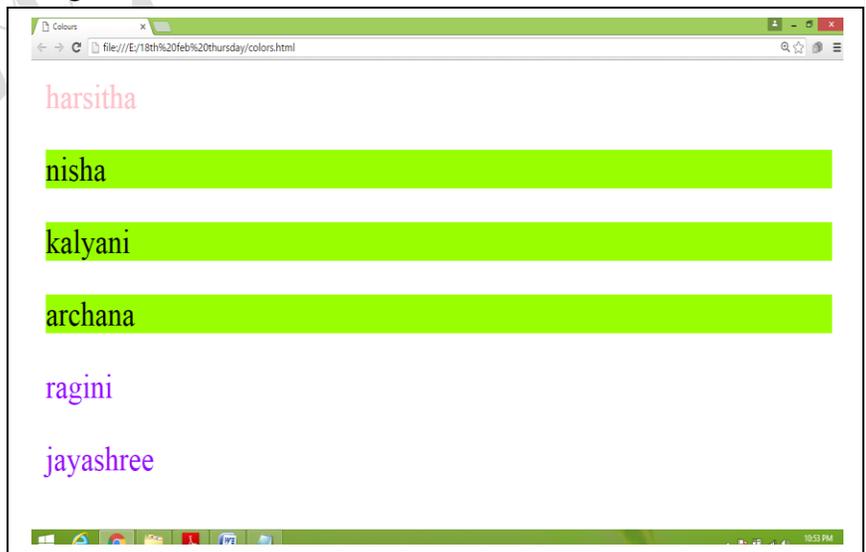


Name	Hexadecimal Code	Name	Hexadecimal Code
aqua	00FFFF	olive	808000
black	000000	orange	FFA500
blue	0000FF	purple	800080
fuchsia	FF00FF	red	FF0000
gray	808080	silver	C0C0C0
green	008000	teal	008080
lime	00FF00	white	FFFFFF
maroon	800000	yellow	FFFF00
navy	000080		

Color Properties:

The `color` property is used to specify the foreground color of XHTML elements

```
<html>
<head>
<title>Colours</title>
<style type = "text/css">
p.one {color: pink; }
p.two {color: #9900FF; }
p.three {background-color:#99FF00;}
</style>
</head>
<body>
<p class = "one">harsitha</p>
<p class = "three">nisha</p>
<p class = "three">kalyani</p>
<p class = "three">archana</p>
<p class = "two">ragini</p>
<p class = "two">jayashree</p>
</body>
```



</html>

ALIGNMENT OF TEXT

- The `text-indent` property can be used to indent the first line of a paragraph. This property takes either a length or a percentage value. The `text-align` property, for which the possible keyword values are `left`, `center`, `right`, and `justify`, is used to arrange text horizontally.
- The `float` property is used to specify that text should flow around some element, often an image or a table. The possible values for `float` are `left`, `right`, and `none`, which is the default.

<html>

<head>

<title>Text Alignment</title>

<style type = "text/css">

h1.one {text-align: center}

p.two {text-indent: 0.5in; text-align: justify;}

img{float:right}

</style>

</head>

<body>

<h1 class = "one">PES ENGINEERING COLLEGE</h1>

<p>

</p> <p class = "two">P.E.S. College of Engineering, Mandya is one of the pioneer Engineering Colleges in India. Presently it is affiliated to the Visvesvaraya Technological University and is recognized by the All India Council of Technical Education, New Delhi. Previously it is affiliated to the University of Mysore.

It is an institution functioning under the grant-in-aid scheme of Government of Karnataka. The College was established in the year 1962 by People's Education Society currently known as People's Education Trust (R), with the help of philanthropic farmers of Mandya District. The sole objective of the college was to promote Technical Education among the students of Rural Areas. The Society was founded by late Sri K.V. Shankaregowda, former Education Minister of Government of Karnataka.

He was a person with a missionary zeal and long cherished ambition to promote and disseminate knowledge, serving generally the cause of Education</p>

</body></html>

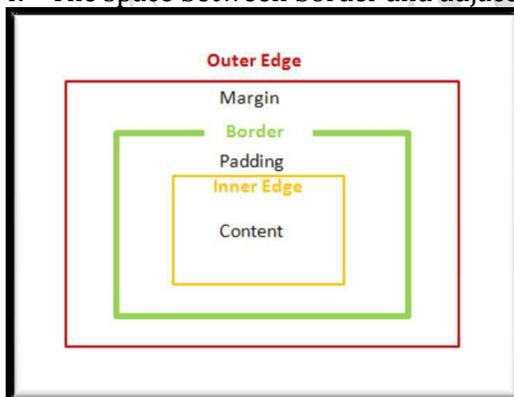
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THE BOX MODEL

1. On a given web page or a document, all the elements can have borders.
2. The borders have various styles, color and width.
3. The amount of space between the content of the element and its border is known as *padding*.
4. The space between border and adjacent element is known as *margin*.



Borders:

Border-style

It can be dotted, dashed, double

Border-top-style

Border-bottom-style

Border-left-style

Border-right-style

Border-width

It can be thin, medium, thick or any length value

Border-top-width

Border-bottom-width

Border-left-width

Border-right-width

Border-color

Border-top-color

Border-bottom-color

Border-left-color

Border-right-color

```
<html>
<head>
<title> Table with border effects </title>
<style type = "text/css">
table
{
border-width:thick;
border-top-color:red;
border-left-color:orange;
border-bottom-color:violet;
border-right-color:green;
border-top-style:dashed;
border-bottom-style:double;
border-right-style:dotted;
}
</style>
</head>
<body>
<table border = "border">
<caption>PES COLLEGE OF ENGINEERING</caption>
<tr>
<td> 2015 M.tech passed out students</td>
<td> <img src = "all.jpg" alt = "cant display"/></td>
</tr>
</table>
</body>
</html>
```

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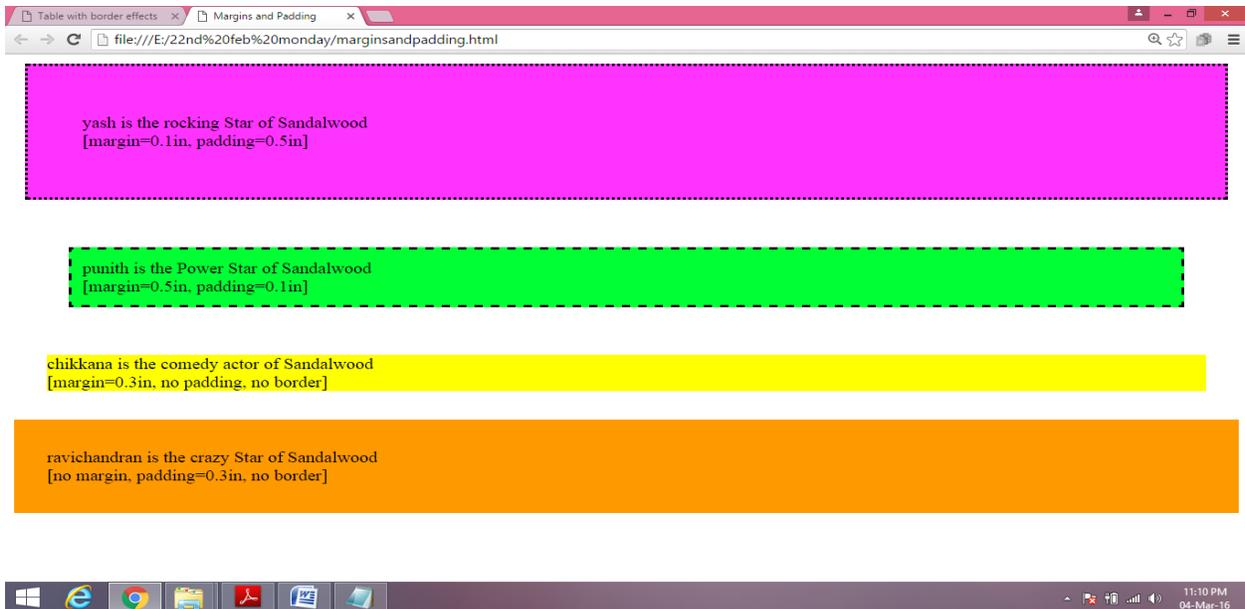


Margins and Padding: The margin properties are named `margin`, which applies to all four sides of an element: `margin-left`, `margin-right`, `margin-top`, and `margin-bottom`. The padding properties are named `padding`, which applies to all four sides: `padding-left`, `padding-right`, `padding-top`, and `padding-bottom`

```
<html>
<head>
<title> Margins and Padding </title>
<style type = "text/css">
  p.one { margin:0.1in; padding:0.5in; background-color:#FF33FF; border-style:dotted; }
  p.two { margin:0.5in; padding:0.1in; background-color:#00FF33; border-style:dashed; }
  p.three {margin:0.3in; background-color:#FFFF00; }
  p.four { padding:0.3in; background-color:#FF9900; }
</style>
</head>
<body>
<p class = "one"> yash is the rocking Star of Sandalwood<br/> [margin=0.1in, padding=0.5in]</p>
<p class = "two"> punith is the Power Star of Sandalwood<br/> [margin=0.5in, padding=0.1in]</p>
<p class = "three"> chikkana is the comedy actor of Sandalwood<br/> [margin=0.3in, no padding, no
border]</p>
<p class = "four"> ravichandran is the crazy Star of Sandalwood<br/> [no margin, padding=0.3in, no
border]</p>
</body>
</html>
```

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BACKGROUND IMAGES

The `background-image` property is used to place an image in the background of an element.

```
<html>
<head>
<title>Background Image</title>
<style type = "text/css">
body {background-image:url(6thsem.jpg);}
p {text-align: justify; color:red;font-size:25pt;}
</style>
</head>
<body>
<p>P.E.S. College of Engineering, Mandya is one of the pioneer
Engineering Colleges in India. Presently it is affiliated to the Visvesvaraya
Technological University and is recognized by the All India Council of Technical
Education, New Delhi. Previously it is affiliated to the University of Mysore.
It is an institution functioning under the grant-in-aid scheme of Government of
Karnataka. The College was established in the year 1962 by People's Education Society
currently known as People's Education Trust (R), with the help of philanthropic farmers
of Mandya District. The sole objective of the college was to promote Technical
Education among the students of Rural Areas. The Society was founded by late
Sri K.V. Shankaregowda, former Education Minister of Government of Karnataka.
He was a person with a missionary zeal and long cherished ambition to promote and
disseminate knowledge, serving generally the cause of Education</p>
</body>
</html>
```

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In the example, notice that the background image is replicated as necessary to fill the area of the element. This replication is called *tiling*. Tiling can be controlled with the `background-repeat` property, which can take the value `repeat` (the default), `no-repeat`, `repeat-x`, or `repeat-y`. The `no-repeat` value specifies that just one copy of the image is to be displayed. The `repeat-x` value means that the image is to be repeated horizontally; `repeat-y` means that the image is to be repeated vertically. In addition, the position of a non-repeated background image can be specified with the `background-position` property, which can take a large number of different values. The keyword values are `top`, `center`, `bottom`, `left`, and `right`, all of which can be used in many different combinations.

THE `` AND `<div>` TAGS

In many situations, we want to apply special font properties to less than a whole paragraph of text. The

`` tag is designed for just this purpose

```
<html>
```

```
<head>
```

```
<title>span</title>
```

```
<style type = "text/css">
```

```
.spanviolet {font-size:25pt;font-family:'lucida calligraphy';color:violet;}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<p>weekend with ramesh is a Kannada primetime show hosted by
```

```
<span class = "spanviolet">
```

```
Ramesh arvind </span>, the star of Kannada cinema
```

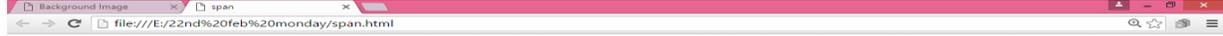
```
</p>
```

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```
</body>
```

```
</html>
```



weekend with ramesh is a Kannada primetime show hosted by *Ramesh arvind*, the star of Kannada cinema



It is more convenient, however, to be able to apply a style to a section of a document rather than to each paragraph. This can be done with the `<div>` tag. As with ``, there is no implied layout for the content of the `<div>` tag, so its primary use is to specify presentation details for a section or division of a document

```
<html>
<head>
<title>div</title>
<style type = "text/css">
.one {font-size:20pt;font-family:'lucida calligraphy';color:violet;}
.two {font-size:25pt;font-family:'comic sans ms';color:green;}
</style>
</head>
<body>
<div class = "one">
<p>anu</p>
<p>arpitha</p>
<p>ashika</p>
</div> <div class = "two">
<p>divya</p>
<p>gagana</p>
<p>srujana</p>
</div>
</body>
</html>
```

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anu

arpitha

ashika

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gagana

srujana

