CHAPTER 5 – CSS PT1: VISUAL RULES

TOPICS TO BE COVERED

» **Introduction to CSS**

What you need to know on CSS.

» **CSS Styling**

Providing a way to make website and design come together.

» **Text Decoration**

Applying different styling to CSS texts.

» **Font Weight, Font Size and Font Family**

Covering the default browser and overridden styling for texts.

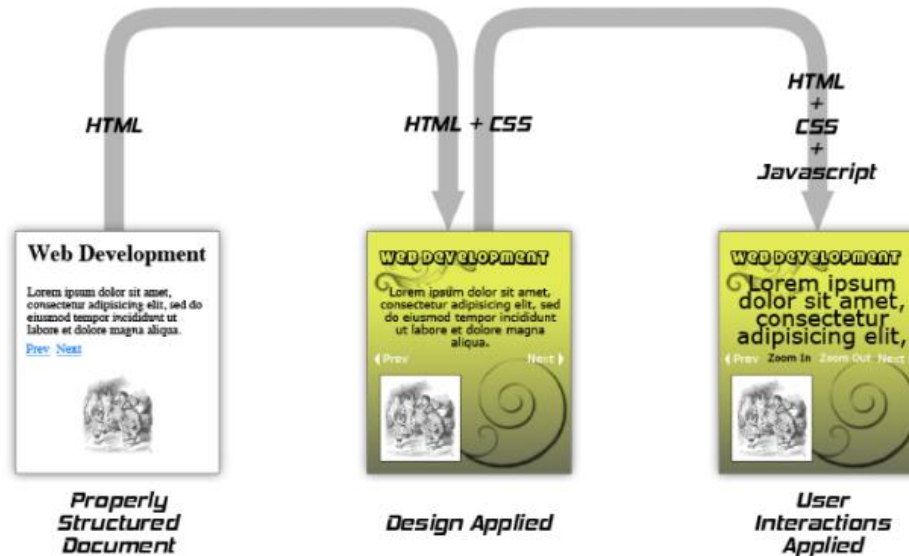**More info on this topic can be found in e-books provided in LMS.**
Presentation slides made by Fifah S., M. Khalid.

TECH COMPONENTS OF A WEB PAGE

» The THREE components of a web page are:

CONTENTS, PRESENTATION and FUNCTIONS

PRESENTATION

» Cascading Style Sheet (CSS) is used to define *how an HTML document* ***should be displayed.***

» **IT IS ALL ABOUT <u>PRESENTATION</u> (of HTML, of course).**

» CSS was introduced to separate the contents of an HTML and how the contents should be presented.

» Separating the contents and presentation is a way to provide **semantic web**, where an application traversing through HTML documents will only read the contents of web documents.

STYLING THE CSS

» There are THREE ways of styling CSS:

1. **Inline Style**
Add a style attribute directly to the opening tag.
<p style="color: red; border: solid 1px #000;"> Hello </p>
Limitation: If you wanted to style multiple <h1> elements, you have to add inline styling to each element manually.

2. **Internal Style**
Adding the <style> tag inside <head> tag.
<head>
    <style>
        p{ color: red; }
    </style>
</head>

STYLING THE CSS

» There are THREE ways of styling CSS:

3. **External Style**
   ◊ To avoid mixing of code, store HTML and CSS codes in separate files, without sacrificing the readability and maintainability of HTML file.

TRY IT YOURSELF:
Cut the CSS code between the opening and closing <style> tags and paste it directly in the new file *style.css*.

LINKING THE CSS FILE

» Use the <link> tag to link HTML and CSS files together. It must be placed within the <head> of HTML file.

» Attributes:
   ◊ href = like an anchor tag, the value of this element must be the path (address) to the CSS file.
   ◊ type = text/css
   ◊ rel = stylesheet

» <link href="css/index.css" type="text/css" rel="stylesheet">

HOW DOES CSS WORK?

» CSS defines a styling property for HTML elements.

» A HTML element can be targeted and style properties can be "associated" to that element.

» Elements in a HTML document:

```
<p> This is a paragraph </p>
<h1> This is Header One </h1>
```

» CSS File

```
p{
    color: #FF0000;
    border: 1px solid #000; }
```

HOW DOES CSS WORK?

» CSS File

#page_header { color: #FF0000; border: 1px solid #000; }

Selector   Declaration

TARGETING THE CSS

» There are THREE ways to target CSS element:

1. **By Tag Name**
   ◊ The word/character between the HTML angle brackets (i.e. <..>)
   ◊ <u>Example</u>:
      In HTML, the tag for paragraph is <p>. The CSS syntax for selecting <p> element is p.
      o All paragraph elements will be selected.

<u>**HTML**</u>   <u>**CSS**</u>
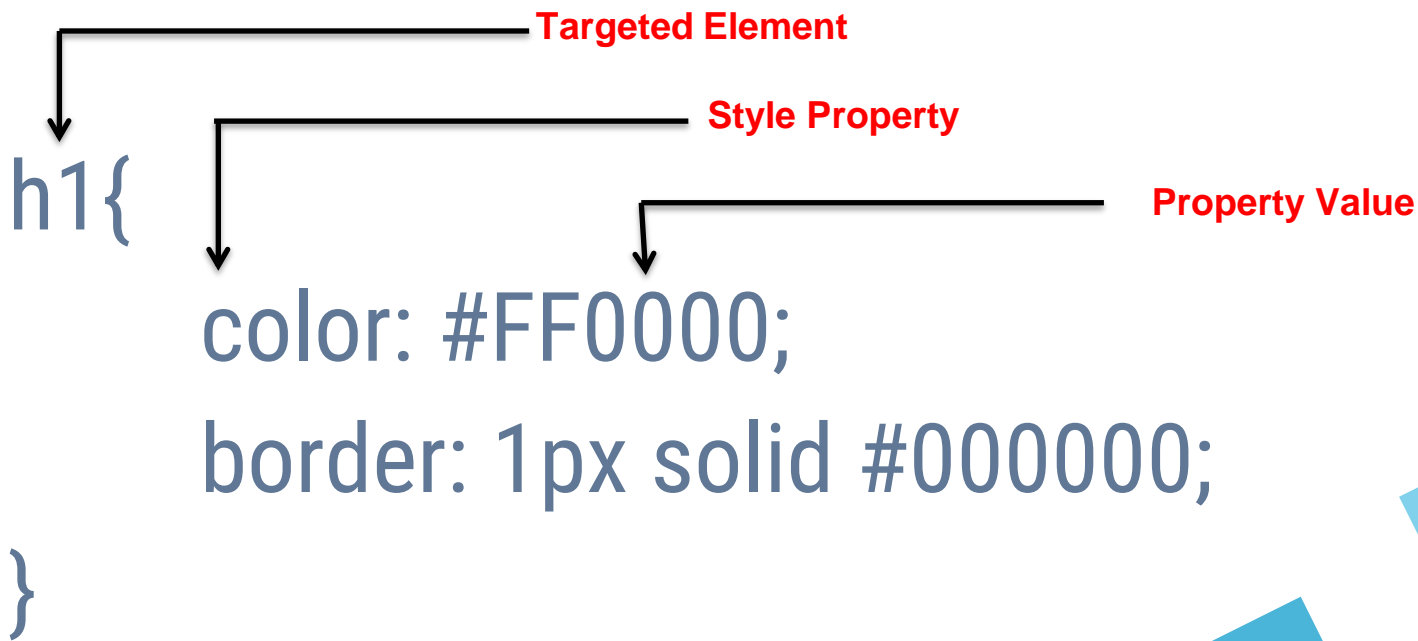<p> Hello </p>   p{ font-family: "Calibri"; }

TRY IT YOURSELF:
In *style.css*, add a selector for <h1> elements.
Change the color of <h1> to maroon.

TARGETING THE CSS

Targeted Element

Style Property

Property Value

h1{

color: #FF0000;

border: 1px solid #000000;

}

TARGETING THE CSS

» There are THREE ways to target CSS element:

2. **By Class Name**
   ◊ Selecting HTML attribute i.e. class.
   ◊ A (.) period must be prepended to the class' name.

HTML   **CSS**
<h1 class="header"> Hello </p>   .header{
                                            background-color: "blue"; }

TRY IT YOURSELF:
In *style.css*, add a selector for <h1> elements.
Change the color of <h1> to maroon.

TARGETING THE CSS

Targeted Class

```
.main_header{
        color: #FF0000;
        border: 1px solid #000000;
}
```

BY CLASS NAME

Multiple Classes

◊ Adding more than one class name to an HTML element class attribute.

◊ <u>Example</u>:

CSS File

```
.green{
    color: green;
}

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

HTML File

```
<h1 class="green bold">Header
</h1>
```

TARGETING THE CSS

» There are THREE ways to target CSS element:

3. **By ID Name**
   ◇ It is for an element that needs to be *styled uniquely*, no matter what classes are applied to the element.
   ◇ Add hashtag (#) to append ID name.
   ◇ While classes are meant to be used many times, an ID is meant to style only **one** element.
   ◇ ID override class and tag styles.

HTML
<h1 id="headerOne"> PB Open Day </p>
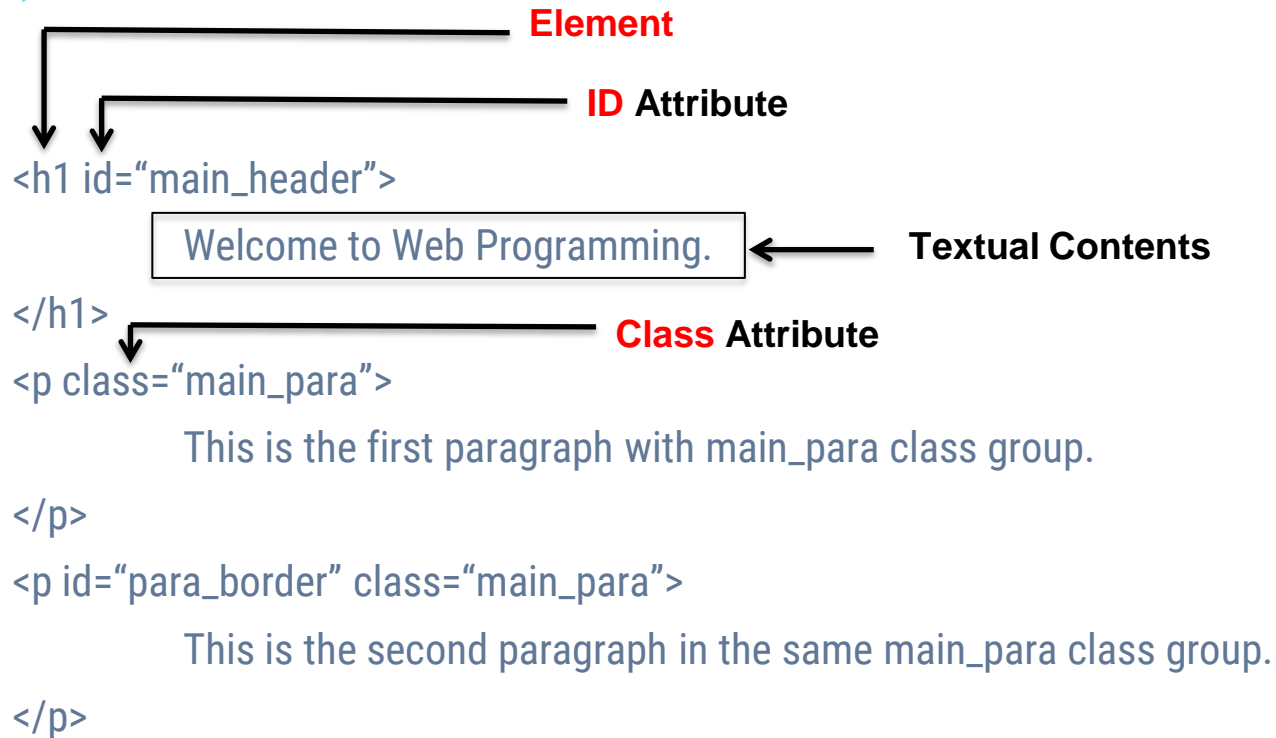
CSS
#headerOne{
background-color: "yellow"; }

TARGETING THE CSS

```css
#main_header{
    color: #FF0000;
    border: 1px solid #000000;
}
```

SUMMARY

Element

ID Attribute

```
<h1 id="main_header">
```

Welcome to Web Programming.   **Textual Contents**

```
</h1>
```

Class Attribute

```
<p class="main_para">

        This is the first paragraph with main_para class group.

</p>
<p id="para_border" class="main_para">

        This is the second paragraph in the same main_para class group.

</p>
```

BASIC STYLING

» **Colors**

» **Background:** Style the background of an element.

» **Text:** Style the text properties of text contents in an element.

» **Fonts:** Style the font properties of text context in an element.

» **Links:** Style the appearance of links.

» **Lists**

» **Tables**

BASIC STYLING: COLORS

» CSS Colors can be declared by using <u>three</u> types of format:

◇ **Hexadecimal Format**
For example: #FFF (#RGB) or #FFFFFF (#RRGGBB) for white.

◇ **rgb()**
By providing an integers or percentage.
For example: white is rgb(255,255,255) or rgb(100%,100%,100%).

◇ **Several named colors**
For example: purple, red, lime, white, black, aqua etc.

BASIC STYLING: BACKGROUND

» **background-color: #ff0000;**

  Specify the color of an HTML element's background.

» **background-image:url('catwoman.png');**

  Specify an image to be used for the background

» **background-repeat: repeat-x;**

  Specify whether to tile the background image. Example of values include: repeat, repeat-x, repeat-y, no-repeat etc.

» **background-position:right top;**

  Specify the position of the background image.

BASIC STYLING: TEXT

» **text-align:center;**

      Specify the alignment of a textual HTML element

» **text-decoration:underline;**

      Specify any decoration to a textual HTML element.

» **text-transform:uppercase;**

      Transform a textual HTML element

» **line-height:10px;**

      Specify the height between lines in a textual HTML element.

» **color:#ff0000;**

      Specify the color of text in an HTML element.

BASIC STYLING: FONTS

» **font-family: Verdana, Helvatica, sans-serif;**

Specify the font family to be used.

» **font-size:10px;**

Specify the size of the font

BASIC STYLING: LINKS

» **text-decoration:none;**

   This can be used to disable "underlines" on a link.

Links have different states and each state can be styles accordingly:

» **a:link -** This is for "unvisited link". *a:link{color:#ff0000;}*

» **a:visited -** This is for "visited link". *a:link{color:#ff0000;}*

» **a:hover -** This is for "mouse over link". *a:hover{color:#ff0000; text-decoration:underline;}*

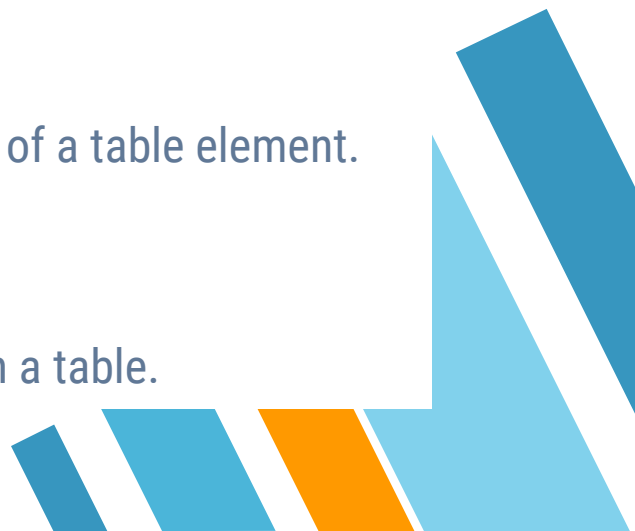» **a:active -** This is for "selected link". *a:link{color:#000000;}*

BASIC STYLING: LISTS

» **list-style-type:circle;** Specify the "bullet-list" type.

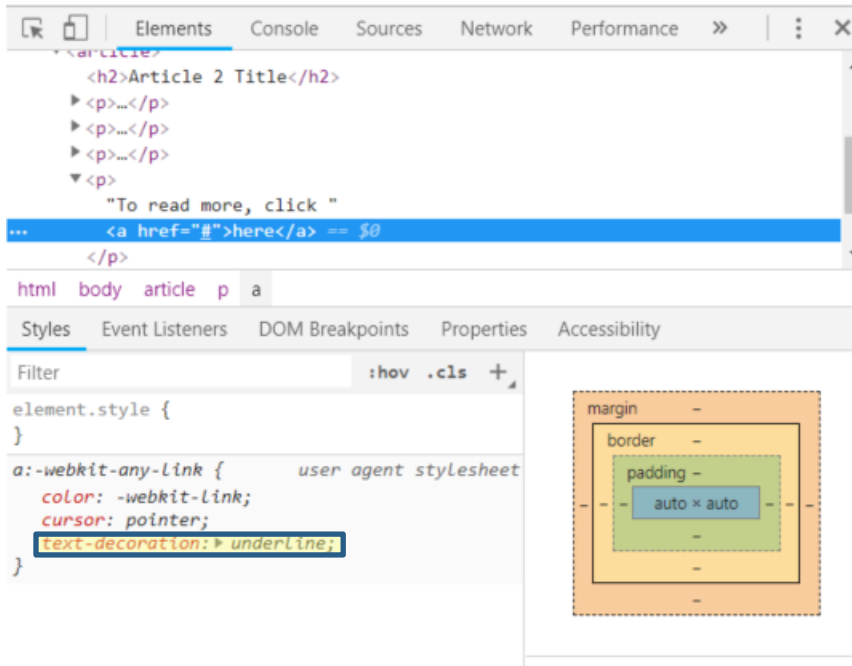» **list-style-position:inside;** Specify where the bullet-list should be positioned.

BASIC STYLING: TABLES

» **border:1px solid #000000;**   Specify the border of a table.

» **border-collapse:collapse;**

Specify whether to collapse the borders of a table as a single border or separated.

» **height:20px;width:50px;**   Specify the width and height of a table element.

» **vertical-align:bottom;**

Specify the vertical alignment of textual content in a table.

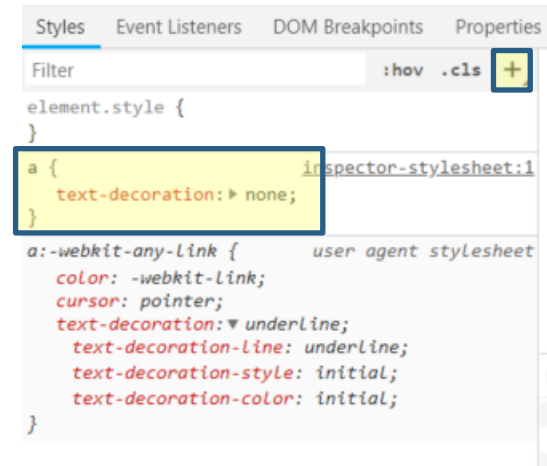# TEXT DECORATION

» Let's try to modify something.. Open the webpage and inspect element.

» You will see the <a> tag, by default is underlined.

» Now, override the example, to

TEXT DECORATION

» There are five (5) types of text-decoration:

1. **Inherit**
   Styles which inherit directly from parent.

```css
article{
    text-decoration: overline;
}
a{
    text-decoration: inherit;
}
```

Activity! Try it out

Remember Black Goose Bistro?

Download folder chap5 from LMS.
You are to modify Black Goose Bistro menu document (**menu.html**).

Use embedded style sheet by adding **\<style\>** element in the head of the document.

INHERITANCE

```
<body>
    <div>
        <p>Text</p>
    </div>
    <h1>Text</h1>
</body>
```

» Top-level element parent is <body> tag.

» Both <div> and <h1> are the children of <body>.

» <p> is the child of?

» **If we apply style to the parent, everything within the tag will inherit the style.**

INHERITANCE

```
<body>
    <div id="header">
        <h1>Contact Us</h1>
    </div>
    <div>
        <p>
            Hello there!
        </p>
    </div>
    <span>Hi, I am a span</span>
    <span class="deck">I am a deck</span>
    <span class="deck">I am a deck too</span>
    <a href="#">Click me!</a></a>
</body>
```

» Notice that the parent is <body> tag.

» When we apply the styling on the parent element, as such, `body { color: red;}` all elements will inherit the same styling as the body tag.

Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

INHERITANCE

```html
<body>
    <div id="header">
     <h1>Contact Us</h1>
    </div>
    <div>
     <p>
       Hello there!
     </p>
    </div>
    <span>Hi, I am a span</span>
    <span class="deck">I am a deck</span>
    <span class="deck">I am a deck too</span>
    <a href="#">Click me!</a></a>
</body>
```

» By adding specific styling onto <div> tag, would override the inheritance styling.

```css
body { color: red; }
div{ color: blue; }
```

» As a result, text within the <div> tags will be colored blue.

Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

INHERITANCE

```
<body>
    <div id="header">
      <h1>Contact Us</h1>
    </div>
    <div>
      <p>
        Hello there!
      </p>
    </div>
    <span>Hi, I am a span</span>
    <span class="deck">I am a deck</span>
    <span class="deck">I am a deck too</span>
    <a href="#">Click me!</a></a>
</body>
```

» As we add styling onto <p> tag, we automatically override the <div> style. As such:

```
body { color: red; }
div{ color: blue; }
p { color: green; }
```

» By doing that, all <p> tags text will be colored green.

Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

INHERITANCE

» Notice that all anchor tag <a> styling are the same throughout the examples, whether or not we have applied different styles.
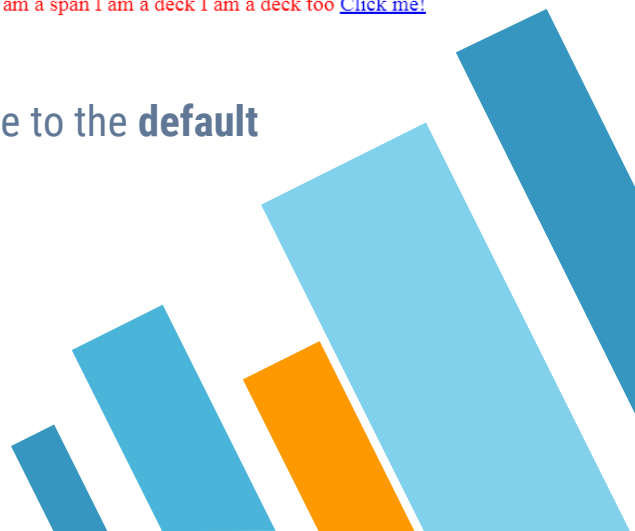
Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

Contact Us

Hello there!

Hi, I am a span I am a deck I am a deck too Click me!

» All anchor tags are in blue with underline decoration. This is due to the **default browser style.**

TEXT DECORATION

» There are five (5) types of text-decoration:

2. **Line-through**
   Like a strike through

```
article{
    text-decoration: line-through;
}
```

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

TEXT DECORATION

» There are five (5) types of text-decoration:

3. **None**
   No style towards the element

```css
article{
    text-decoration: none;
}
```

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

TEXT DECORATION

» There are five (5) types of text-decoration:

4. **Overline**
   A line over the text.

```
article{
    text-decoration: overline;
}
```

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

TEXT DECORATION

» There are five (5) types of text-decoration:

5. **Underline**
   A line under the text.

```
article{
    text-decoration: underline;
}
```

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.
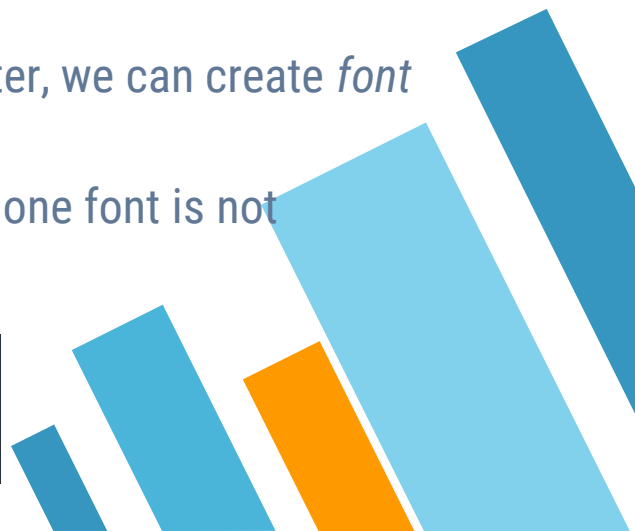
FONT FAMILY

» By default, the font for all texts in browser is **Times New Roman.**

» But we can change that by:

```
article h2, article p{
    font-family: Arial;
}
```

» If in the case that **Arial** font is not found on the computer, we can create *font family stack*.

» It is a list which specify a multitude of font-family so if one font is not installed, the CSS can choose the next on the list.

```
article h2, article p{
    font-family: Arial, Helvatica, san-serif;
}
```
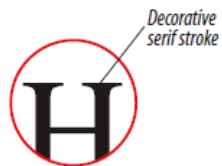
GENERIC FONT FAMILIES

» It is a list which specify a multitude of font-family so if one font is not installed, the CSS can choose the next on the list.

» When you specify a generic font family, the browser chooses an available font from that stylistic category.

A. **serif**
B. **sans-serif**
C. **monospace**
D. **cursive**
E. **fantasy**

```css
article h2, article p{
    font-family: Arial, Helvatica, san-serif;
}
```
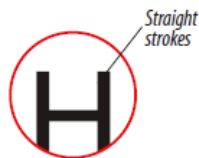
Serif

H — Decorative serif stroke

Hello — Times
Hello — Georgia
Hello — Times New Roman
Hello — Lucida (Mac)

Sans-serif

H — Straight strokes

Hello — Veranda
Hello — Trebuchet MS
Hello — Arial
Hello — Arial Black

Monospace

Wi — Monospace font (equal widths)
Wi — Proportional font (different widths)

Hello — Courier
Hello — Courier New
Hello — Andale Mono

Cursive

Hello — Apple Chancery
Hello — Comic Sans
Hello — Snell

Fantasy

Hello — Imapct
HELLO — Stencil
HELLO — Mojo

FONT SIZE

ABSOLUTE	RELATIVE
Pixels (px)	Em (em) Percentage (%)
Definitive value, it doesn't change	• Change according to screen size. • Useful when working with responsive designs.
Example: h1{ font-size: 48px; }	Example: h1{ font-size: 50%; }

Activity! Try it out

Apply style into the **menu.html** as per follows:

1. The main text to appear in Verdana or any other sans-serif font with size 100%.

2. Add a fancier font for the "Black Goose Bistro, Summer Menu" headline, by adding a free display font called *Marko One* from Google Web Fonts. And change the size to 1.5em.

3. Change the font size of **p** and **dl** to 0.875em.

Save the file.

FONT WEIGHT

» There are four (4) types:

1. **Lighter** – Crisp light thin font.
2. **Normal** – Does not have any weight.
3. **Bold** – Heavy font.
4. **Bolder** – Bolder than bold.
5. **Inherit** – Inheriting the style from the parent tag.

FONT WEIGHT

» If there are **NO CHANGES** at all, this is due to the default font the browser is using. Not all fonts have a bold or lighter version attached. For example:

```
article p{
    font-family: Arial;
}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

```
article p{
    font-family: Arial;
    font-weight: lighter;
}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.

Activity!
Try it out

Apply style into the **menu.html** as per follows:

1. Make all menu items to be in bold text, <u>use CSS!!</u>

2. Seems like the <strong> element not standing out.
    Change its font-style property to italic.

Save the file.

EXAMPLE ONE – chap5 folder

```html
<body>
  <h1>Most Recent Articles</h1>
  <article>
    <h2>Article Title</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>To read more, click <a href="#">here</a></p>
  </article>
  <article>
    <h2>Article 2 Title</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>To read more, click <a href="#">here</a></p>
  </article>
</body>
```

```css
article { font-size: 16px;}
article p { font-size: 50%; }
```

»   <p> by default inherit the font size of 16px from the parent, but then, we override the size by 50%.
i.e. 16px X 50% = 8px.

EXAMPLE TWO

```html
<body>
  <h1>Most Recent Articles</h1>
  <article>
    <h2>Article Title</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>To read more, click <a href="#">here</a></p>
  </article>
  <article>
    <h2>Article 2 Title</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum
      semper vitae tortor in ullamcorper. Cras ac tempus dolor. Orci varius.</p>
    <p>To read more, click <a href="#">here</a></p>
  </article>
</body>
```

```css
article { font-size: 16px;}
article h2 {font-size: 4em;}
```

» Means that we take the base font size which are inherited (i.e. 16px) and then multiply by 4.

» So h2 will be 16px X 4 = 64px.

Apply style into the *index.html* as per follows:

1. Body >>
   background should be in #faf2e4 color, with sans-serif font.

2. h1 >>
   Align the text as center, with serif font. All the text should be in uppercase.

3. h2 >>
   The text should have #d1633c color with font size 1 em.