UI BASICS

TYPOGRAPHY

- HTML Inline Text Semantics (<b>, <em>, <strong>, <i> etc.)

- HTML Quotations

- CSS Font Family

- CSS Font Sizing

- CSS font-weight Property

- CSS font-style Property

- CSS Text Alignment

- CSS Vertical Alignment

- CSS Text Direction

- CSS Text Decoration

- CSS Text Transform

- CSS Text Shadow

- **Icon Fonts**

TYPOGRAPHY

Inline Text Semantics

- `<b>` - Bold text
- `<strong>` - Important text
- `<i>` - Italic text
- `<em>` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `<del>` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

TYPOGRAPHY

Inline Text Semantics

```
<p>This text is normal.</p>

<p><b>This text is bold.</b></p>
```

This text is normal.

This text is bold.

```
<p>This text is normal.</p>

<p><strong>This text is important!</strong></p>
```

This text is normal.

This text is important!

```
<p>This text is normal.</p>

<p><i>This text is italic.</i></p>
```

This text is normal.

This text is italic.

Inline Text Semantics

```
<p>This text is normal.</p>

<p><em>This text is emphasized.</em></p>
```

This text is normal.

This text is emphasized.

```
<p>This is some normal text.</p>
<p><small>This is some smaller text.</small></p>
```

This is some normal text.

This is some smaller text.

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

Do not forget to buy ==milk== today.

```
<p>My favorite color is <del>blue</del> red.</p>
```

My favorite color is ~~blue~~ red.

Inline Text Semantics

```
<p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
```

My favorite color is ~~blue~~ <u>red</u>.

```
<p>This is <sub>subscripted</sub> text.</p>
```

This is $_{subscripted}$ text.

```
<p>This is <sup>superscripted</sup> text.</p>
```

This is ^{superscripted} text.

HTML Quotations

<abbr>	Defines an abbreviation or acronym
<address>	Defines contact information for the author/owner of a document
<bdo>	Defines the text direction
<blockquote>	Defines a section that is quoted from another source
<cite>	Defines the title of a work
<q>	Defines a short inline quotation

HTML Quotations

```html
<p>Browsers usually indent blockquote elements.</p>

<blockquote cite="http://www.worldwildlife.org/who/index.html">
For nearly 60 years, WWF has been protecting the future of nature. The world's leading conservation
organization, WWF works in 100 countries and is supported by more than one million members in the
United States and close to five million globally.
</blockquote>
```

> Browsers usually indent blockquote elements.
>
> > For nearly 60 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by more than one million members in the United States and close to five million globally.

```html
<p>Browsers usually insert quotation marks around the q element.</p>

<p>WWF's goal is to: <q>Build a future where people live in harmony with nature.</q></p>
```

Browsers usually insert quotation marks around the q element.

WWF's goal is to: "Build a future where people live in harmony with nature."

HTML Quotations

```
<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>
```
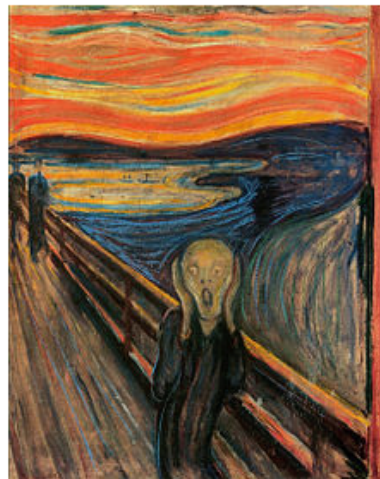
The .WHO was founded in 1948.

```
<address>
Written by John Doe.<br>
Visit us at:<br>
Example.com<br>
Box 564, Disneyland<br>
USA
</address>
```

Written by John Doe.
Visit us at:
Example.com
Box 564, Disneyland
USA

```
<img src="img_the_scream.jpg" width="220" height="277" alt="The Scream">
<p><cite>The Scream</cite> by Edvard Munch. Painted in 1893.</p>
```


The Scream by Edvard Munch. Painted in 1893.

HTML Quotations

```
<bdo dir="rtl">This line will be written from right to left</bdo>
```

tfel ot thgir morf nettirw eb lliw enil sihT

Font Family

In CSS, there are two types of font family names:

- **generic family** - a group of font families with a similar look (like "Serif" or "Monospace")
- **font family** - a specific font family (like "Times New Roman" or "Arial")

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

Difference Serif vs. Sans-serif Fonts

F
Sans-serif

F
Serif

F
Serif
(red serifs)

Font Family

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

- If the name of a font family is more than one word, it must be in quotation marks, like: "Times New Roman".

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

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

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

.monospace {
  font-family: "Lucida Console", Courier, monospace;
}
```

TYPOGRAPHY

```css
font-family: 'Caveat', cursive;
```

Font Family

```css
font-family: 'Josefin Slab', serif;
```

index.html - <link>

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Book Story</title>
    <link rel="shortcut icon" href="favicon.png" type="image/x-icon">

    <link href="https://fonts.googleapis.com/css2?family=Josefin+Slab:wght@400;600;700&display=swap" rel="stylesheet">
    <link href="https://fonts.googleapis.com/css2?family=Caveat:wght@400;700&display=swap" rel="stylesheet">

    <link rel="stylesheet" href="style.css">
</head>
```

style.css - @import

```css
@import url('https://fonts.googleapis.com/css2?family=Josefin+Slab:wght@400;600;700&display=swap');

@import url('https://fonts.googleapis.com/css2?family=Caveat:wght@400;700&display=swap');
```

TYPOGRAPHY

Font Family

https://google-webfonts-helper.herokuapp.com/fonts

Download to Local - @font-face

https://www.w3schools.com/cssref/css3_pr_font-face_rule.asp

```css
/* caveat-regular - latin */
@font-face {
    font-family: 'Caveat';
    font-style: normal;
    font-weight: 400;
    src: url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.eot'); /* IE9 Compat Modes */
    src: local('Caveat Regular'), local('Caveat-Regular'),
        url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.eot?#iefix') format('embedded-opentype'), /* IE6-IE8 */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.woff2') format('woff2'), /* Super Modern Browsers */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.woff') format('woff'), /* Modern Browsers */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.ttf') format('truetype'), /* Safari, Android, iOS */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-regular.svg#Caveat') format('svg'); /* Legacy iOS */
}


/* caveat-700 - latin */
@font-face {
    font-family: 'Caveat';
    font-style: normal;
    font-weight: 700;
    src: url('./fonts/caveat-v7-latin/caveat-v7-latin-700.eot'); /* IE9 Compat Modes */
    src: local('Caveat Bold'), local('Caveat-Bold'),
        url('./fonts/caveat-v7-latin/caveat-v7-latin-700.eot?#iefix') format('embedded-opentype'), /* IE6-IE8 */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-700.woff2') format('woff2'), /* Super Modern Browsers */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-700.woff') format('woff'), /* Modern Browsers */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-700.ttf') format('truetype'), /* Safari, Android, iOS */
        url('./fonts/caveat-v7-latin/caveat-v7-latin-700.svg#Caveat') format('svg'); /* Legacy iOS */
}
```

```css
font-family: 'Caveat', cursive;
```

Font Sizing

- The font-size value can be an absolute, or relative size.

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

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

NOTE : If you do not specify a font size, the default size for normal text, like paragraphs, is 16px (16px=1em).

Font Sizing

Three units :

- **px**
- em
- rem

```
h1 {
  font-size: 40px;
}

h2 {
  font-size: 30px;
}

p {
  font-size: 14px;
}
```

- **Pixels** are the easiest measurement to use. But there is a catch.

- What if a user changes the default font-size of browser?

- Your header's font-size (say 20px) will remain 20px.

- Hence user's font preferences won't be reflected. Which is not a good user experience.

- So, pixels may be good at spacing and layout but are not good fit for font-size.
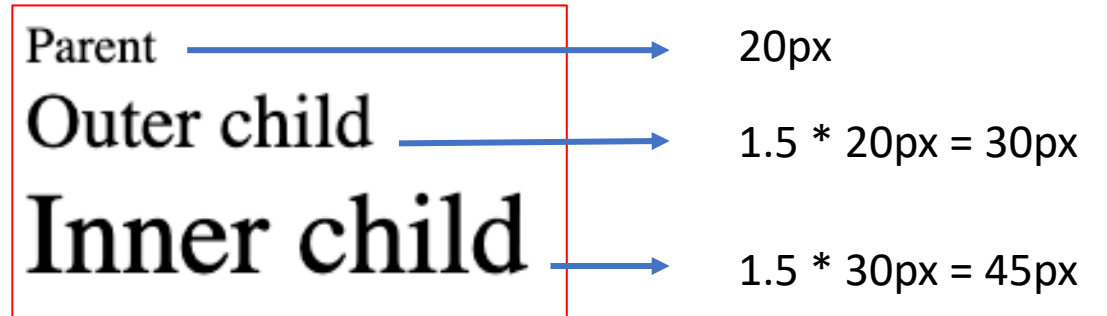
Font Sizing

Three units :

- px
- **em**
- rem

- An **em** is equal to the computed font-size of that element's parent.
- For example, If there is a div element defined with font-size: 16px then for that div and for its children 1em = 16px.

- The default text size in browsers is 16px. So, the default size of 1em is 16px.

- If font-size is not defined explicitly, that element will inherit it from the parent element. The inheritance continues to take place this way amongst ancestors up until the root element.

```
<div class="parent">
    Parent
    <div class="child">
        Outer child
        <div class="child">
            Inner child
        </div>
    </div>
</div>
```

```
.parent {
    font-size: 20px;
}

.child {
    font-size: 1.5em;
}
```


Parent ⟶ 20px

Outer child ⟶ 1.5 * 20px = 30px

Inner child ⟶ 1.5 * 30px = 45px

Font Sizing

Three units :

- px
- em
- **rem**

```
:root {
    font-size: 62.5%;
}
.app-header {
    font-size 2.4rem;  // 24px
    padding: 0.8rem;  // 8px
    background-color: lightblue;
    text-align: center;
}
```

- **rem** values are relative to the root html element, not to the parent element.

- That is, If font-size of the root element is 16px then 1 rem = 16px for all elements.

- If font-size is not explicitly defined in root element then 1rem will be equal to the default font-size provided by the browser (usually 16px).

- Usually default font-size of the browser is 16px.

- Setting font-size: 100% will make 1rem = 16px.

- But it will make calculations a little difficult.

- A better way is to set font-size: 62.5%. Because 62.5% of 16px is 10px. Which makes 1rem = 10px.

font-weight Property

The **font-weight** property sets how thick or thin characters in text should be displayed.

Value	Description
normal	Defines normal characters. This is default
bold	Defines thick characters
bolder	Defines thicker characters
lighter	Defines lighter characters
100 200 300 400 500 600 700 800 900	Defines from thin to thick characters. 400 is the same as normal, and 700 is the same as bold

100 : lighter
400 : normal
700 : bold
900 : bolder

font-weight – google-fonts

Thin 100

Almost before we knew it, we had left the ground.

+ Select this style

Thin 100 italic

Almost before we knew it, we had left the ground.

+ Select this style

Light 300

Almost before we knew it, we had left the ground.

+ Select this style

Light 300 italic

Almost before we knew it, we had left the ground.

+ Select this style

Regular 400

Almost before we knew it, we had left the ground.

+ Select this style

Regular 400 italic

Almost before we knew it, we had left the ground.

+ Select this style

Bold 700

Almost before we knew it, we had left the ground.

+ Select this style

Bold 700 italic

Almost before we knew it, we had left the ground.

+ Select this style

Black 900

Almost before we knew it, we had left the ground.

+ Select this style

Black 900 italic

Almost before we knew it, we had left the ground.

+ Select this style

font-style Property

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

```
<style>
p.a {
    font-style: normal;
}

p.b {
    font-style: italic;
}

p.c {
    font-style: oblique;
}
</style>
```

This is a paragraph, normal.

This is a paragraph, italic.

This is a paragraph, oblique.

Text Alignment

- The **text-align** property is used to set the horizontal alignment of a text.

- A text can be **left** or **right** aligned, **centered**, or **justified**.

```
<style>
h1 {
    text-align: center;
}

h2 {
    text-align: left;
}

h3 {
    text-align: right;
}
</style>
</head>
<body>

<h1>Heading 1 (center)</h1>
<h2>Heading 2 (left)</h2>
<h3>Heading 3 (right)</h3>
```

<div style="border:1px solid red">

Heading 1 (center)

Heading 2 (left)

Heading 3 (right)

</div>

Text Alignment

In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'

```
<style>
div {
  border: 1px solid black;
  padding: 10px;
  width: 200px;
  height: 200px;
  text-align: justify;
}
}
</style>

<div>
In my younger and more vulnerable years my father gave me some advice that I've been turning over
in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that
all the people in this world haven't had the advantages that you've had.'
</div>
```

Vertical Alignment

- The **vertical-align** property sets the vertical alignment of an element.
- A text can be **top, bottom** or **middle** vertical aligned.

```
<style>
img.top {
  vertical-align: top;
}

img.middle {
  vertical-align: middle;
}

img.bottom {
  vertical-align: bottom;
}
</style>
```

```
<p>An <img src="w3schools_logo.gif" alt="W3Schools" width="270" height="50"> image with a default
alignment.</p><br>

<p>An <img class="top" src="w3schools_logo.gif" alt="W3Schools" width="270" height="50"> image with
a top alignment.</p><br>

<p>An <img class="middle" src="w3schools_logo.gif" alt="W3Schools" width="270" height="50"> image
with a middle alignment.</p><br>

<p>An <img class="bottom" src="w3schools_logo.gif" alt="W3Schools" width="270" height="50"> image
with a bottom alignment.</p>
```

Text Direction

The direction and unicode-bidi properties can be used **to change the text direction of an element**

```
<style>
p.ex1 {
  direction: rtl;
  unicode-bidi: bidi-override;
}
</style>

<p>This is the default text direction.</p>

<p class="ex1">This is right-to-left text direction.</p>
```

This is the default text direction.

.noitcerid txet tfel-ot-thgir si sihT

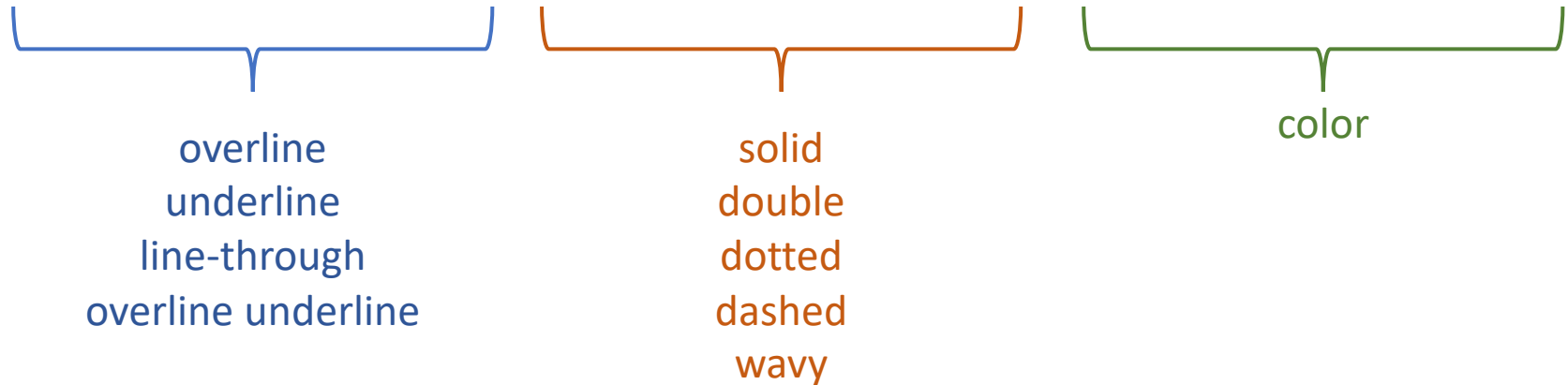**Text Direction**

```
<bdo dir="rtl">This line will be written from right to left</bdo>
```

tfel ot thgir morf nettirw eb lliw enil sihT

Text Decoration

The **text-decoration** property specifies the decoration added to text, and is a <u>shorthand</u> property for:

```
text-decoration: text-decoration-line text-decoration-style text-decoration-color;
```

overline	solid	color
underline	double	
line-through	dotted	
overline underline	dashed	
	wavy	

This is heading 1

~~**This is heading 2**~~

This is heading 3

This is heading 4

This is some text with a solid underline.

This is some text with a wavy underline.

This is some text with a double underline.

This is some text with a wavy over- and underline.

Text Transform

```
<style>
div.a {
  text-transform: uppercase;
}

div.b {
  text-transform: lowercase;
}

div.c {
  text-transform: capitalize;
}
</style>
```

```
<h2>text-transform: uppercase:</h2>
<div class="a">Lorem ipsum dolor sit amet, consectetur adipiscing elit.
</div>

<h2>text-transform: lowercase:</h2>
<div class="b">Lorem ipsum dolor sit amet, consectetur adipiscing elit.
</div>

<h2>text-transform: capitalize:</h2>
<div class="c">Lorem ipsum dolor sit amet, consectetur adipiscing elit.
</div>
```
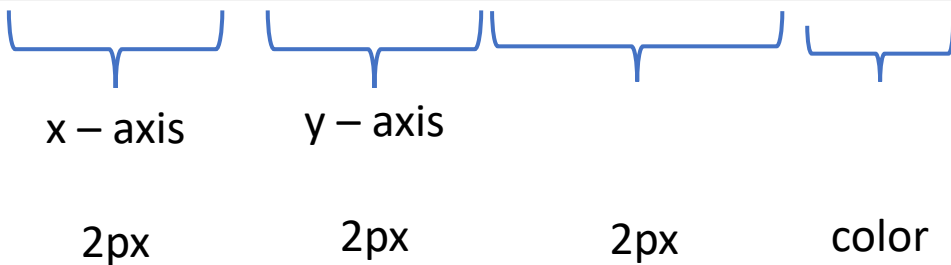
text-transform: uppercase:

LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT.

text-transform: lowercase:

lorem ipsum dolor sit amet, consectetur adipiscing elit.

text-transform: capitalize:

Lorem Ipsum Dolor Sit Amet, Consectetur Adipiscing Elit.

Text Shadow

```
text-shadow: h-shadow v-shadow blur-radius color;
```

x – axis   y – axis

2px   2px   2px   color

h-shadow	Required. The position of the <u>horizontal shadow</u>. Negative values are allowed
v-shadow	Required. The position of the <u>vertical shadow</u>. Negative values are allowed
blur-radius	Optional. The blur radius. Default value is 0
color	Optional. The color of the shadow.

Text Shadow

```
h1 {
    text-shadow: 5px 5px red;
}
```

The text-shadow Property

```
h1 {
    text-shadow: 5px 5px 5px red;
}
```

The text-shadow Property
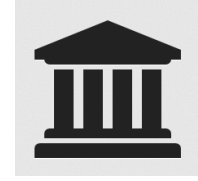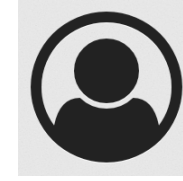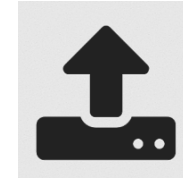
```
h1 {
    text-shadow: -5px -5px red;
}
```

The text-shadow Property

```
h1 {
    text-shadow: -5px -5px 5px red;
}
```

The text-shadow Property

Icon Fonts

Font Awesome

index.html

```html
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css"/>
```

```html
<i class="fa fa-area-chart" aria-hidden="true"></i>
```

```html
<script src="https://kit.fontawesome.com/ec1633c775.js" crossorigin="anonymous"></script>
```

```html
<i class="fab fa-app-store"></i>
```

Icon Fonts

MATERIAL DESIGN

https://material.io/resources/icons/?icon=backup&style=baseline

https://materializecss.com/icons.html

index.html

```html
<link rel="stylesheet" href="https://fonts.googleapis.com/icon?family=Material+Icons">
```

`<span class="material-icons">backup</span>`

`<span class="material-icons">android</span>`