

Different Operating Systems have different types of fonts.

```
body{
  font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI',
  Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
  line-height: 1.5rem;
  font-size: 1rem;
}
```

If we supply the line-height without unit, then the number will be used as multiplier.

```
body{
  font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI',
  Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
  font-size: 1rem;
  /* line-height: 1.5rem; */
  line-height: 1.5;
}
```

For letter spacing we must set values in fixed units like px.

Depending on the font that the site use; we set the value of letter-spacing.

We can set negative values for letter-spacing; useful for heading elements if we want.

```
body{
  font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI',
  Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
  font-size: 1rem;
  /* line-height: 1.5rem; */
  line-height: 1.5;
  letter-spacing: 2px;
}
```

Also, we have word spacing; for setting spaces between words.

```
word-spacing: 0.5px;
```

```
p{
  width: 100ch;
}
```

To set the width of 50 characters for better reading view for customer, reader, ...etc.

The *text-transform* for upper or lower case.

- The capitalize-value will Capitalize the letter of each word in text:

The *text-indent* for adding indent before first line only.

The *white-space* for wrapping text.

The *text-overflow* for setting the attribute of overflow of texts that has container with border.

The *direction* for ltr OR rtl OR ...etc.



```
p {
  width: 50ch;
  white-space: nowrap;
  border: 3px solid gold;
  overflow: hidden;
  text-overflow: ellipsis;
}
```

```
p{
  width: 100ch;
  column-count: 2;
  column-rule: 3px dotted #999;
}
```

Heading 1

Lorem ipsum dolor sit amet consectetur
adipiscing elit. Eos sequi aperiam libero
quidem magni provident, veritatis rerum optio

distinctio in voluptatem odio sint nam harum
asperiores perspiciatis nostrum nisi quasi.

Heading 2

Lorem ipsum dolor sit amet consectetur,
adipiscing elit. Perferendis amet ea autem
fuga aspernatur sint maiores deserunt

voluptatum, quisquam quasi facilis distinctio
quis tempore aliquam obcaecati explicabo,
ullam itaque atque.

If we set the *alt-attribute as empty* OR we *remove it from img-element* then the screen reader will read the name of src-attributes; ex: *src="images/line.jpg"* then it will read line.jpg.

The best practice is set alt-attribute to empty.

The **background-property** is short hand for **background-image** & **background-color**.

If the image is smaller than the screen then the browser will repeat the image horizontally and vertically.

```
body {  
  /* background: url(../images/coffee-1900194_1920.jpg); */  
  /* height: 100vh; */  
  background: url(../images/bg-paper.jpg);  
  background-repeat: no-repeat;  
}
```

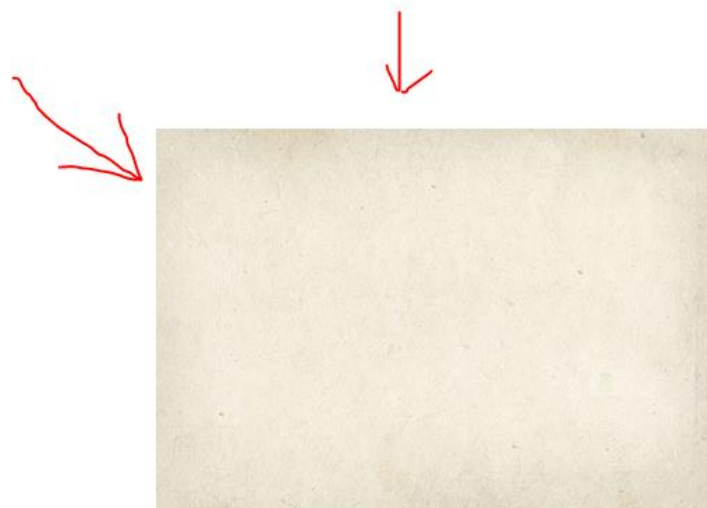
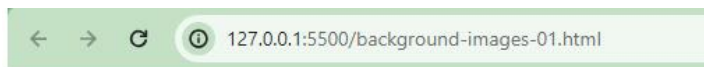
This will disable the repeat behavior of browser.

Also, we have repeat-x, repeat-y with no-repeat for background-repeat

```
background-position: 100px 100px;
```

To specify the background position after any resizing operation.

Also, we can pass negative values.



```
background-size: 500px 500px;
```

To control the size of background image.

In both cases (here and above) we can use different units of measurements to set the value.

The other values for background-size is: cover.

```
background-size: cover;
```

```
body {  
  /* background: url(../images/coffee-1900194_1920.jpg); */  
  /* height: 100vh; */  
  /* background: url(../images/bg-paper@2x.jpg); */  
  background: url(../images/bg-sanfrancisco.jpg);  
  /* background-repeat: no-repeat; */  
  background-repeat: no-repeat;  
  /* background-position: 100px 100px; */  
  /* background-size: cover; */  
  background-size: 100% 100%;  
  height: 300vh;  
  background-attachment: fixed;  
}
```

<https://css-tricks.com/css-sprites/>

With CSS Sprites we have these problems.

If we replace any image; we must re-generate the whole sprite image.

PROBLEMS

- File size can get too large
- Sprites are not flexible

With the Data URI we can reduce the number of http requests.

The Problems with Data URIs:

PROBLEMS

- Size of embedded code > size of the resource
- Increased complexity
- Slow on mobile

<https://www.cssportal.com/image-to-data/>

```
.meal-02 {
  clip-path: polygon(0% 20%, 60% 20%, 60% 0%, 100% 50%, 60% 100%, 60% 80%, 0%
80%);
  background-color: lightgrey;
  /* box-shadow: 15px 15px 25px gold; */
  width: 200px;
  height: 200px;
  /* filter: drop-shadow(75px 75px 250px gold);
  -webkit-filter:; */
}
.meal-02-wrap {
  filter: drop-shadow(-1px -6px 3px #ccc);
  -webkit-filter: drop-shadow(-1px -6px 3px #ccc);
}
```

```
.meal {
  filter: grayscale(70%) blur(3px);
  -webkit-filter: grayscale(70%) blur(3px);
}
```

The Device iPhone 4 have scale factor = 2x.

Then the image will be twice as big.



Physical Resolution: The actual Number of Pixels in device.

Logical Resolution: How the device behaves.

CSS is always relied on logical resolution.

TERMS

Physical resolution 960 x 640

Logical resolution 480 x 320

The Devices have also Problem called: Device Pixel Ratio (DPR) related to Physical && Logical Resolution.

High Density: DPR > 1.

Allows in *Photoshop* **when** editing image for many resolutions of devices; we must set the resolution from bigger values to smaller ones.

Resolution Switching: The Problem of Display Images on Different Types of Screens (on *Mobiles*, *Tables*, *Desktop Computers*).

RETINA DISPLAYS

iPhone 8 667 x 375

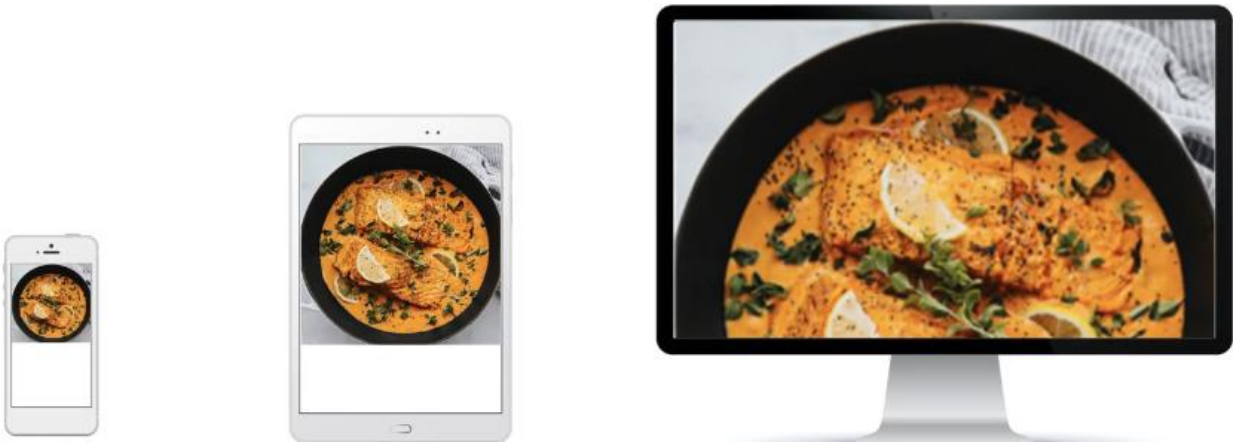
iPad Pro 11" 1024 x 768

MacBook Pro 15" 1440 x 900

The Bad of this way, is the resolution of the image:

```

*****
```



The browser will select the image depending on the size of the screen and pixel ratio:

```

*****
```

We can use sizes-attribute to set the size of image depending on media query:

```

*****
```

```


*****

```

Here the srcset-attribute also support 1x, 2x, ...etc.
 Here we must set the img-element with alt-attribute.

```

<picture>
  <source type="image/webp" srcset="images/meal.webp">
  <source type="image/jpeg" srcset="images/meal.jpeg">
  
</picture>
*****

```

Art Direction: pick the right image for right screen dimensions.

```

*****
<picture>
<source media="(max-width: 500px)" srcset="images/meal-cropped.jpg"
type="image/jpeg">
<source media="(min-width: 501px)" srcset="images/meal.jpg" type="image/jpeg">

</picture>
*****

```

In Font Awesome Package we can wrap the icon with span element to change the font size and background color.

```

*****

```