

Agenda :

- Units :

1. Absolute :

- px , cm , inch , pt , mm , etc.

2. Relative :

- em , rem , % , vh [viewport height] , vw [viewport width].

- Color Property :

- #HexaDecimal Code.

- RGB [Red , Green , Blue] , RGBA [Red , Green , Blue , Alpha].

- HSL [Hue , Saturation , lightness]. , HSLA.

- CSS Background :

- Bg Color , Bg Image , Bg Repeat , Bg Attachment , Bg Size ,

Bg Clip , Bg Origin , Bg Position , Transparency , Opacity.

Color :

- Hex Colors :



- RGBA {Red , Green , Blue, Alpha}.

- HSL (Hue, Saturation , Lightness)



```
/* Utilities & Background Properties / style.css / Line 11 */
h1{
    color: #4eec0f7a;
}
h1{
    color: #rgb(222, 111, 52);
}
h1{
    color: #rgba(111, 222, 111, 0.5);
}
h1{
    color: #hsl(180, 50%, 50%);
}
h1{
    color: #hsla(350, 78%, 22%, 0.7);
}
```

Significance of Contrast ?

```
<h1>Good Contrast for Readability </h1>
<p class="good_contrast">Lorem ipsum dolor sit amet
consectetur, adipisicing elit. Libero adipisci ex
odit, explicabo dicta eaque placeat consectetur.
Mollitia harum unde sequi, sint a sed ipsa ullam,
enim modi nemo fuga!</p>
<h1>Bad Contrast for Readability </h1>
<p class="bad_contrast">Lorem ipsum dolor sit amet
consectetur, adipisicing elit. Libero adipisci ex
odit, explicabo dicta eaque placeat consectetur.
Mollitia harum unde sequi, sint a sed ipsa ullam,
enim modi nemo fuga!</p>
```

```
p.good_contrast{
    color: #333;
    background-color: #f2f2f2;
}
p.bad_contrast{
    color: #98a6a7;
    background-color: #c7d3d4;
}
```

Good Contrast for Readability

Lore*m ipsum dolor sit amet consectetur, adipisicing elit. Libero adipisci ex odit, explicabo dicta eaque placeat consectetur. Mollitia harum unde sequi, sint a sed ipsa ullam, enim modi nemo fuga!*

Bad Contrast for Readability

Lore*m ipsum dolor sit amet consectetur, adipisicing elit. Libero adipisci ex odit, explicabo dicta eaque placeat consectetur. Mollitia harum unde sequi, sint a sed ipsa ullam, enim modi nemo fuga!*

Units :

- Absolute Units :

- Pixel [px] , inches(in) ,cm , mm , points(pt).

```
p{
  width: 300px;
  background-color: greenyellow;
}
p{
  width: 1in;
  background-color: greenyellow;
}
p{
  width: 1cm;
  background-color: greenyellow;
}
p{
  width: 100mm;
  background-color: greenyellow;
}
p{
  width: 500pt;
  background-color: greenyellow;
}
```

- Relatives :

- Ems : Parent Element

- Rems : Root

- Viewport Height [vh]

- ViewPort Width [vw]

- % percentage.

EMs

```
<!-- Relative Units -->
<div class="container">
  <h1>Heading</h1>
  <p>Lorem, ipsum dolor sit amet consectetur adipisicing elit. Ex dolor deleniti neque saepe quia consequuntur laboriosam molestias sunt reprehenderit, impedit quae fugiat earum odit, provident dignissimos omnis aut architecto consectetur.</p>
  <div class="small">
    Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae.  $0.7 \times 30 = 21 \text{ px}$ 
    <div class="small">
      Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae.  $21 \times 0.7 = 14.7$ 
      <div class="small">
        Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae.  $14.7 \times 0.7 = 10.$ 
        <div class="small">
          Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae.  $10 \times 0.7 = 7.$ 
        </div>
      </div>
    </div>
  </div>
</div>
```

```
.container {
  font-size: 30px;
}

h1 {
  font-size: 4em;
}

p {
  font-size: 1.5em;
}

.small {
  font-size: 0.7em;
}
```

Heading

45px

Lorem, ipsum dolor sit amet consectetur adipisicing elit. Ex dolor deleniti neque saepe quia consequuntur laboriosam molestias sunt reprehenderit, impedit quae fugiat earum odit, provident dignissimos omnis aut architecto consectetur.

21px

Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae. Lorem, ipsum dolor sit amet consectetur adipisicing elit. Numquam ex provident asperiores optio illum omnis, nobis voluptates id enim sapiente at beatae? Consequuntur suscipit accusamus voluptates voluptatum, quasi ipsa molestiae.

REMs :

```
<h1>I am a heading 1</h1>
<h2>I am a heading 2</h2>
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nihil libero nesciunt recusandae. Maxime aperiam fugiat autem, ad perspiciatis corporis omnis excepturi cum ullam magnam expedita eum tempore. Consequatur, blanditiis nemo?</p>
<div class="pixels">
  <h1>I am a heading 1</h1>
  <h2>I am a heading 2</h2>
  <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nihil libero nesciunt recusandae. Maxime aperiam fugiat autem, ad perspiciatis corporis omnis excepturi cum ullam magnam expedita eum tempore. Consequatur, blanditiis nemo?</p>
</div>
```

```
/* REMs */
h1 {
  font-size: 6rem;
}
h2 {
  font-size: 4rem;
}
p {
  font-size: 2rem;
}
.pixels h1{
  font-size: 96px;
}
.pixels h2{
  font-size: 64px;
}
.pixels p{
  font-size: 32px;
}
```

ViewPort Height & Width

```
<!-- viewPort Height & Width -->
<div class="container"></div>
<div class="container2"></div>
```

```
/* ViewPort Height & Width */
body{
    margin: 0;
}
.container{
    background-color: magenta;
    width: 100vw;
    height: 100vh;
}
.container2{
    background-color: cyan;
    width: 50vw;
    height: 100vh;
}
```

% Percentage :

```
<!-- Percentage Relative -->
<div class="parent">
    <div class="child">Child Element</div>
    Parent Element
</div>
```



```
/* Percentage Relative Unit */
div.parent{
    width: 400px;
    height: 100px;
    background-color: skyblue;
    border: 2px solid red;
}
div.child{
    width: 50%;
    height: 50%;
    background-color: yellow;
    border: 2px solid black;
}
```

BackGround Properties :

- BackGround Color : <Color_Name>

Hex , Rgb , Hsl

```
body{
    width: 100vw;
    height: 100vh;
    background-image: url(photo1.jpg);
    background-size: cover; / contain / pixel value
    background-repeat: repeat-y; → no repeat / repeat -x
    background-position: right;
}
```

```

body{
    width: 100vw;
    height: 100vh;
    background-image: url(photo1.jpg);
    background-size: 700px;
    background-repeat: no-repeat;
    background-position: center;
    background-attachment: fixed; / scroll
}

```

