

CSS In Depth

Values, Style Precedence

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Alliance with  Education

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Alliance with **FPT** Education

CSS VALUES

Types, Ranges, Units

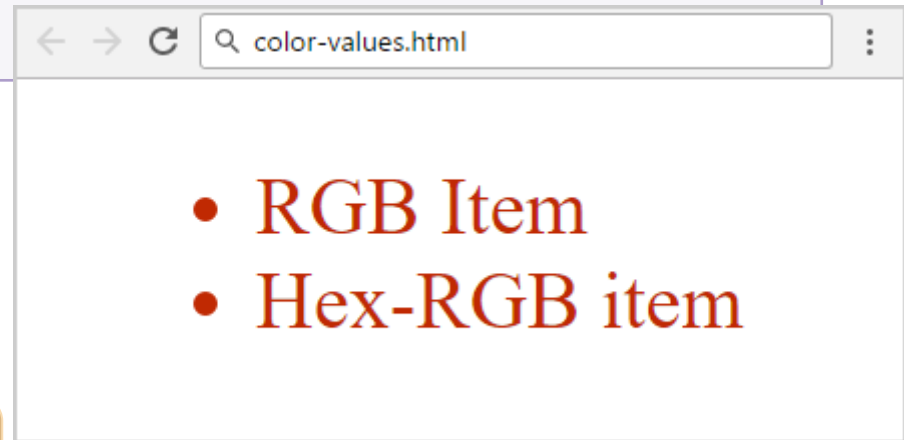
CSS Color Values (Hex and RGB)

```
<ul>
  <li id="rgb">RGB Item</li>
  <li id="hex-rgb">Hex-RGB item</li>
</ul>
```

```
#rgb {
  color: rgb(192, 41, 2)
}
#hex-rgb {
  color: #C02902;
}
```

<red>, <green>, <blue>

#RRGGBB or #RGB where
R, G, B are hex digits (0...F)



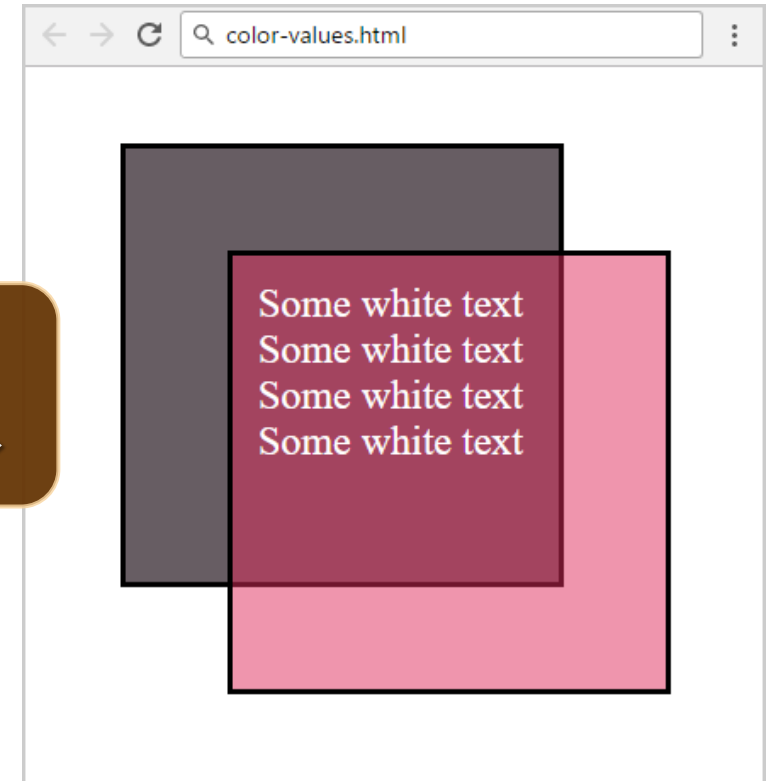
CSS Color Values (RGBA and HSLA)

```
<div id="wrapper">  
  <div class="opacity">Some text</div>  
</div>
```

`<red>, <green>,
<blue>, <alpha>`

```
#wrapper, .opacity {  
  background: rgba(87, 76, 83, 0.9)  
}  
.opacity {  
  background: hsla(344, 73%, 52%, 0.5);  
}
```

The opacity values are
from 0.0 to 1.0



Size Values (px)

- **Pixels:** fixed size units (logical pixels, not physical)

```
<div>  
  Lorem ipsum dolor  
  sit adipisicing elit.  
</div>
```

```
div {  
  font-size: 24px  
}
```

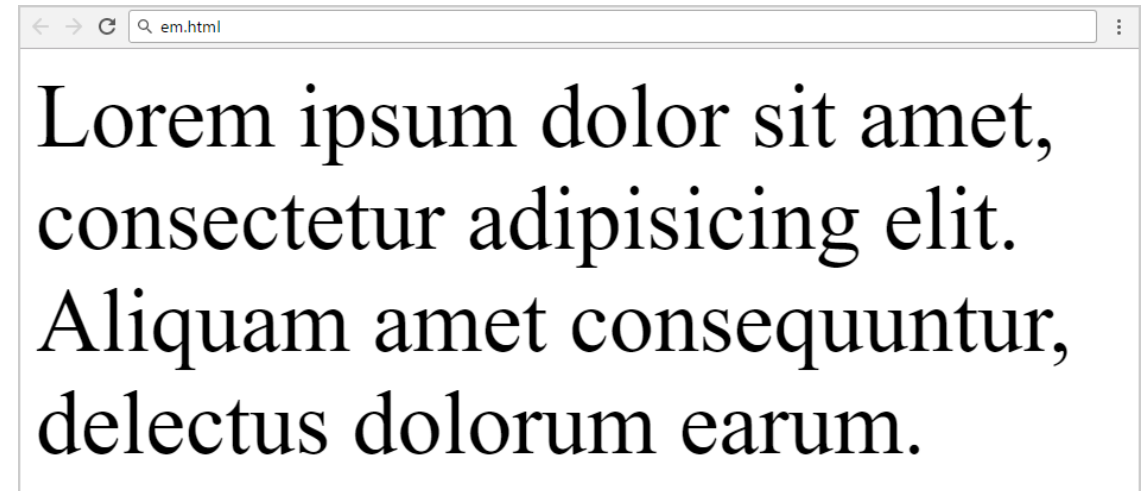


Size Values (em)

- **Em's: scalable unit (based on the parent element)**

```
<div>  
  <div class="nested-div">  
    Lorem ipsum dolor  
    sit adipisicing elit...  
  </div>  
</div>
```

Parent <div>
font: 24px



em.html

Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aliquam amet consequuntur,
delectus dolorum earum.

```
div { font-size: 24px }  
.nested-div { font-size: 1.8em }
```

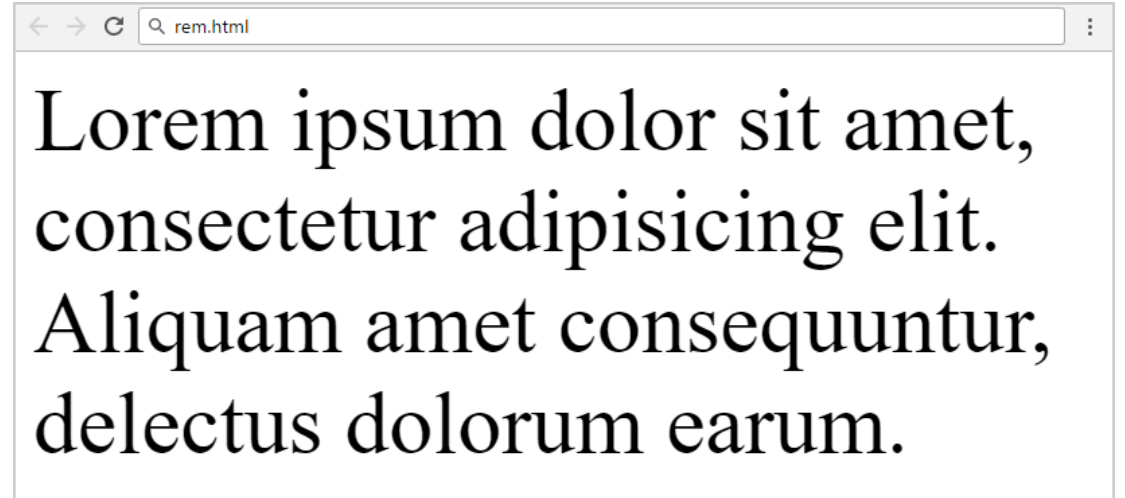
1.8em = 1.8 *
24px = 43.2px

<http://pxtoem.com>

Size Values (rem)

- **Rem's**: scalable unit (based on the **html** element)

```
<div>  
  <div class="nested-div">  
    Lorem ipsum dolor  
    sit adipisicing elit..  
  </div>  
</div>
```



rem.html

Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aliquam amet consequuntur,
delectus dolorum earum.

```
html { font-size: 25px }  
div { font-size: 2rem }  
.nested-div { font-size: 1.5rem }
```

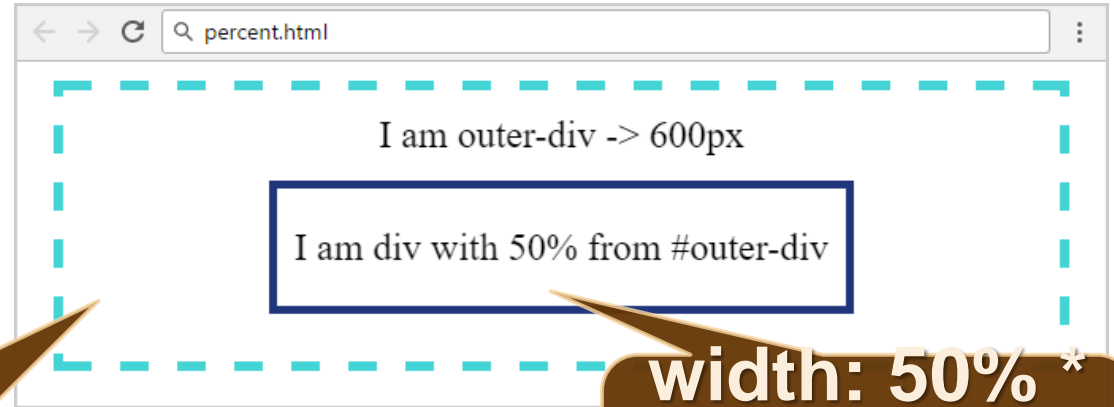
$2\text{rem} = 2 * 25\text{px} = 50\text{px}$

$1.5\text{rem} = 1.5 * 25\text{px} = 37.5\text{px}$

Size in % of the Parent

```
<div id="outer-div">  
  I am outer-div -> 600px  
  <div id="inner-div">  
    I am div with 50% ...  
  </div>  
</div>
```

width:
600px



width: 50% *
600px =
300px

```
#outer-div {  
  width: 600px;  
  text-align: center;  
}  
#inner-div {
```

```
  width: 50%;  
  text-align: center;  
  margin: 0 auto;  
  line-height: 50px;  
}
```

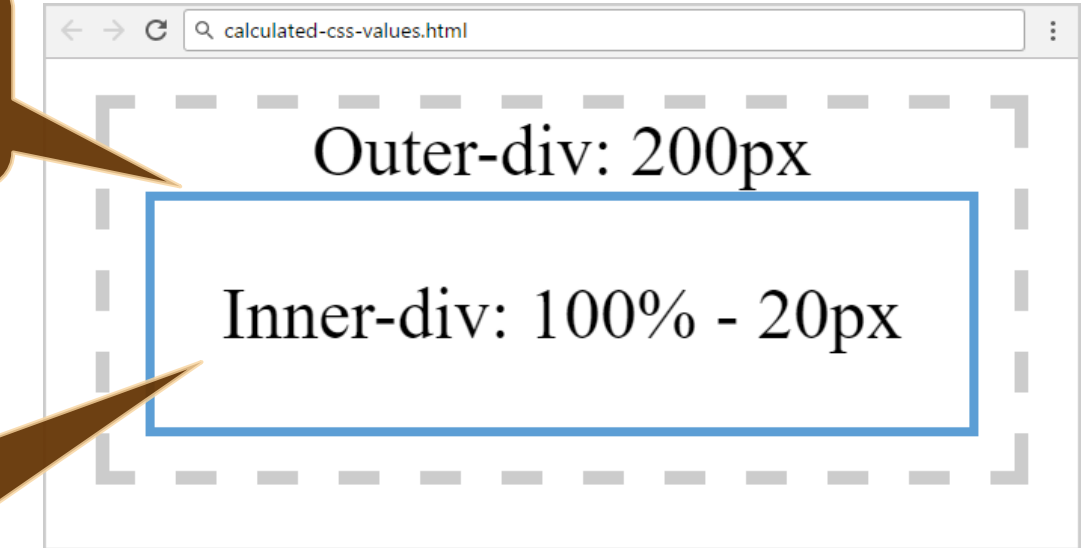
Calculated CSS Values: calc(...) Function

```
<div id="outer-div">  
  Outer-div: 200px  
  <div id="inner-div">  
    Inner-div: 100% - 20px  
  </div>  
</div>
```

width:
200px


width:
 $100\% * 200\text{px}$
 $- 20\text{px} = 180\text{px}$

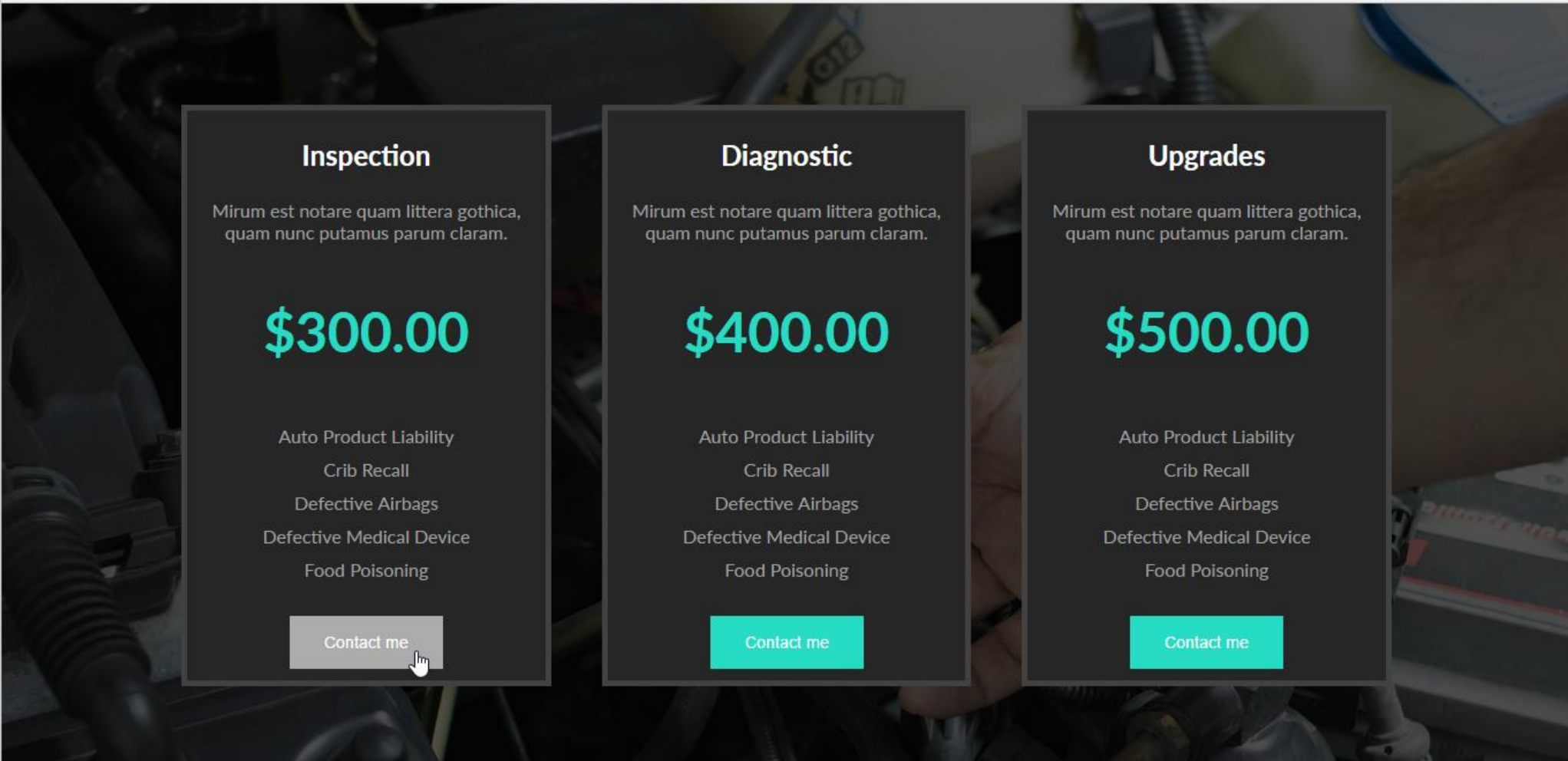
```
#outer-div {  
  width: 200px;  
  height: 80px;  
  text-align: center; }  
#inner-div {
```



```
width: calc(100% - 20px);  
height: 50px;  
text-align: center;  
margin: 0 auto;  
line-height: 50px;}
```

Problem: Plan Page

Ali  plan-page.html



Inspection

Mirum est notare quam littera gothica,
quam nunc putamus parum claram.

\$300.00

Auto Product Liability
Crib Recall
Defective Airbags
Defective Medical Device
Food Poisoning

Contact me

Diagnostic

Mirum est notare quam littera gothica,
quam nunc putamus parum claram.

\$400.00

Auto Product Liability
Crib Recall
Defective Airbags
Defective Medical Device
Food Poisoning

Contact me

Upgrades

Mirum est notare quam littera gothica,
quam nunc putamus parum claram.

\$500.00

Auto Product Liability
Crib Recall
Defective Airbags
Defective Medical Device
Food Poisoning

Contact me

Solution: Plan Page – CSS

```
body {  
    background: url('plan-  
page.jpg');  
    background-size: cover;  
    font-size: 16px;  
    font-family: Lato, sans-  
serif;  
}  
section {  
    text-align: center;  
}
```

```
article {  
    background-color: #262626;  
    display: inline-block;  
    width: 23%;  
    margin: 80px 20px 0 20px;  
    border: 5px solid #424242;  
    color: #a1a1a1;  
}
```

Solution: Plan Page – CSS (2)

```
article h1 {  
    font-size: 1.5em;  
    color: #FFF;  
}  
article .price {  
    font-size: 3em;  
    font-weight: bold;  
    color: #27dcc4;  
}  
article ul {  
    padding: 0;  
}
```

```
article button {  
    background-color: #27dcc4;  
    color: #FFFFFF;  
    padding: 15px 30px;  
    margin: 10px 0;  
    font-size: 0.9em;  
    cursor: pointer;  
    border: none;  
}
```

Solution: Plan Page – CSS (3)

```
article ul li {  
    list-style-type: none;  
    padding: 5px 0;  
}  
article button:hover {  
    background-color: #acacac;  
}
```



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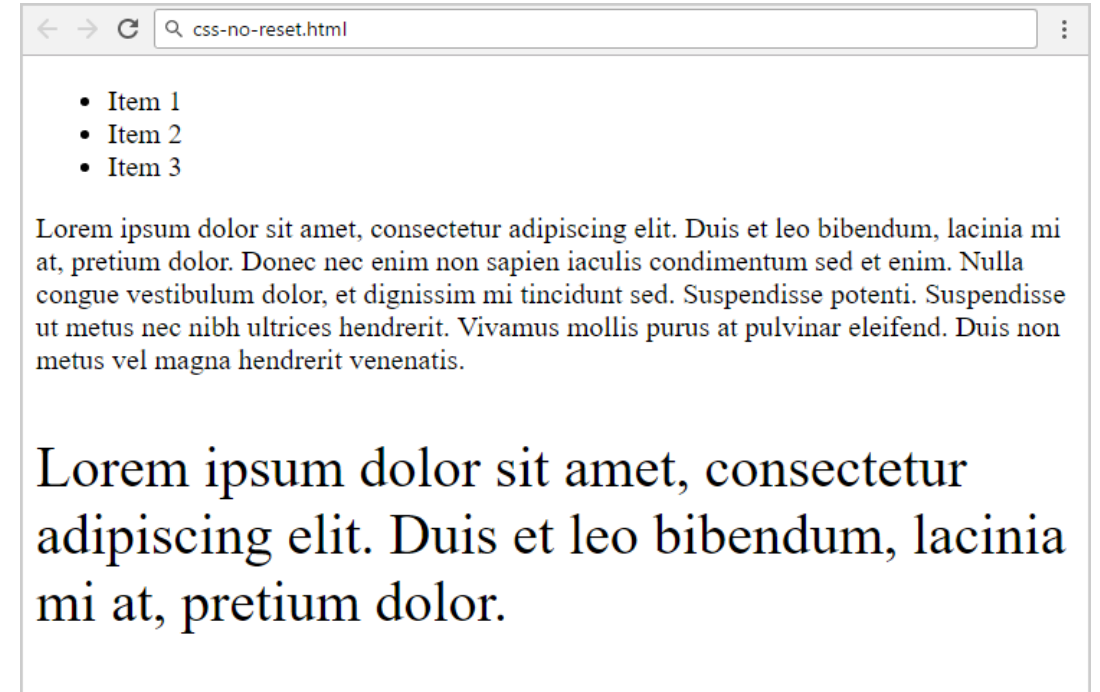
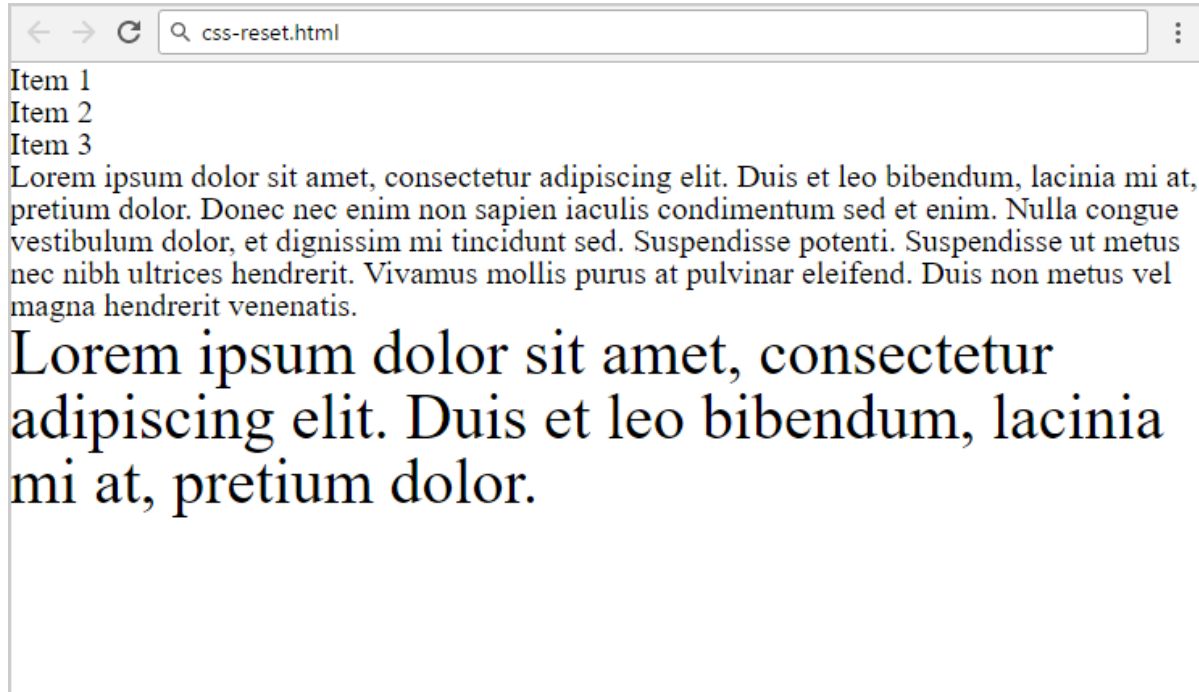
DEFAULT BROWSER STYLES AND PRECEDENCE

Default Styles and CSS Style Precedence

Default Browser Styles

- Reset the browser styles (partially or fully)

```
* { margin: 0; padding: 0; }
```



Order of Style Definitions

- Priorities of the CSS style definitions:
 - External `<link rel="stylesheet" href="...">`
 - Styles in the `<head><style>...</style></head>`
 - Inline style attributes: `<p style="...">`
 - Using `!important`

```
h1.big { color:red !important }
```

lowest

highest



Selector Priority (Specificity)

- Selector priorities depend on:

0

inline styles

0

number of
id selectors

0

number of
class
selectors

0

number of
element
selectors

Selector Priority (Specificity) – Example

```
p { color: #FFF }
```

0, 0, 0, 1

```
.intro { color: #345678 }
```

0, 0, 1, 0

```
#header { color: #000 }
```

0, 1, 0, 0

```
<p style="color: blue">Text</p>
```

1, 0, 0, 0

```
p.intro#header { color: #FFF }
```

0, 1, 1, 1

```
p.intro.big#header { color: #FFF }
```

0, 1, 2, 1

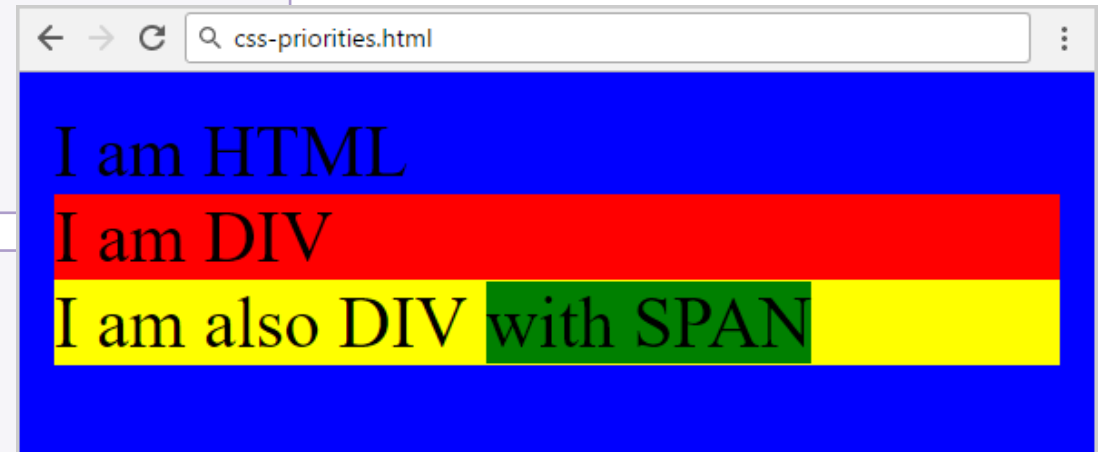
```
p { color: #000 !important }
```

!important

CSS Priorities – Example

```
<html>  
  I am HTML <div>I am DIV</div>  
  <div id="main">  
    I am also DIV <span>with  
SPAN</span>  
  </div>  
</html>
```

```
html { background: blue }  
#main { background: yellow }  
div { background: red }  
div > span { background: green }
```





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CSS FONT / TEXT PROPERTIES

Font Property

- CSS font property

```
font: italic normal bold 12px/16px Verdana
```



```
font-style: italic;  
font-variant: normal;  
font-weight: bold;  
font-size: 12px;  
line-height: 16px;  
font-family: Verdana;
```

***This paragraph has
long words
thisisaveryverylongw
ordthisisavery and
again very very long
word withnospace***

Font Embedding

```
<h1>HTML & CSS Course</h1>  
<h2>Normal Text</h2>
```

```
@font-face {  
  font-family: SketchRockwell;  
  src: url('fonts/SketchRockwell.ttf')  
}
```

```
h1 {  
  font-family: SketchRockwell;  
  font-size: 3.5em  
}
```

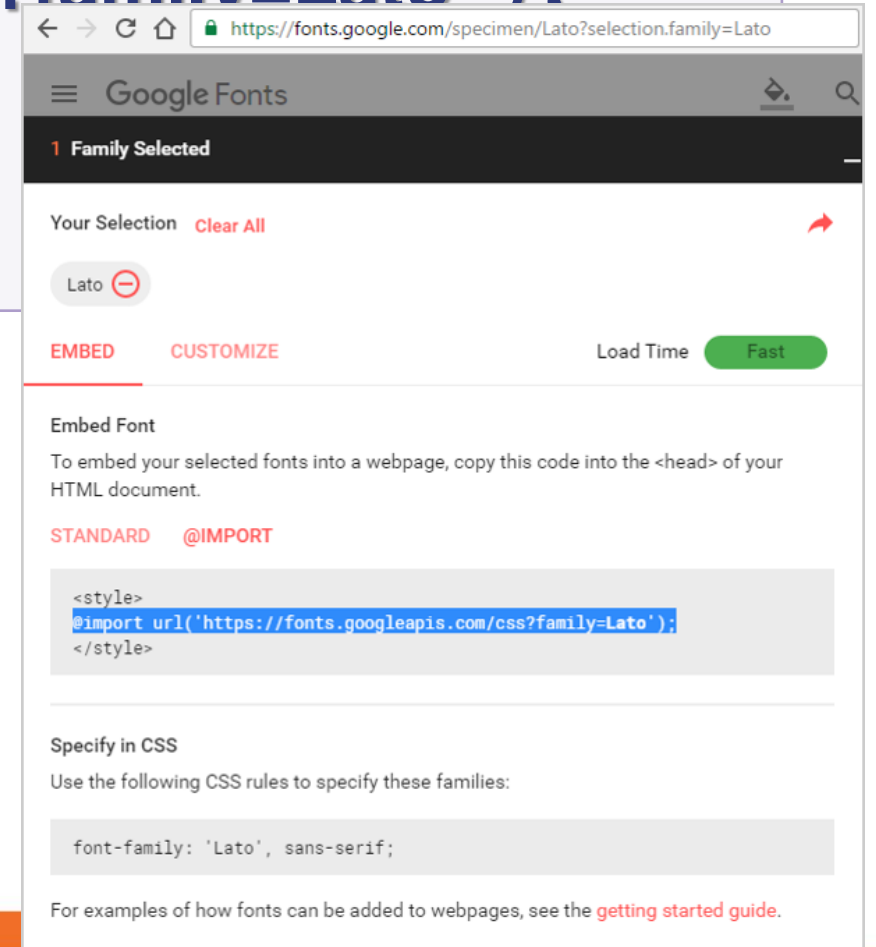


Importing "Lato" from Google Font Directory

```
@import
url( 'https://fonts.googleapis.com/css?family=Lato' ):
body {
  font-family:
    Lato, Arial, sans-serif;
```

serif
font

sans-serif
font



CSS Font Rules: Color

```
<h1>color</h1>
<p>Text with default color</p>
<p class="color-ddd">Text...</p>
<p class="color-coral">Text...</p>
<p class="color-rgba">Text...</p>
```



```
.color-ddd {
  color:#DDD;
}
```

```
.color-coral {
  color:coral;
}
```

```
.color-rgba {
  color:
    rgba(30, 106, 255, 0.75)
}
```

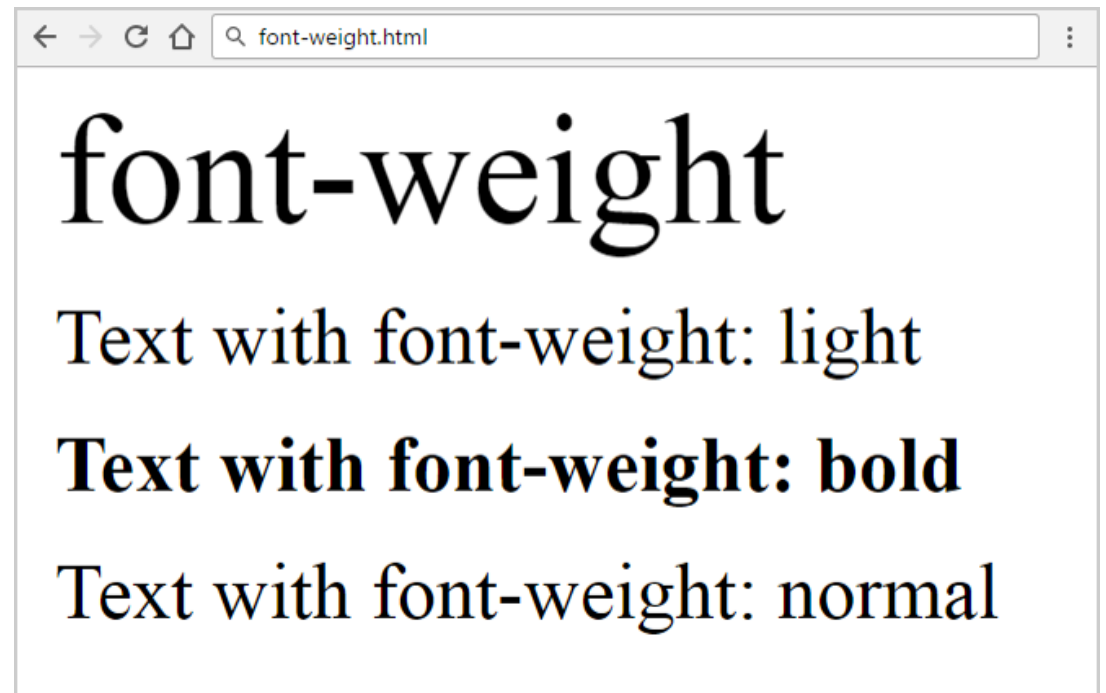
CSS Font Rules: Font-Weight

```
<p class="weight-light">Text...</p>
```

```
<p class="weight-bold">Text...</p>
```

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

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



CSS Font Rules: Font-Style

```
<p class="font-style-italic">Text...</p>  
<p class="font-style-oblique">Text...</p>
```

```
.font-style-italic {  
  font-style: italic;  
}
```

```
.font-style-oblique {  
  font-style: oblique;  
}
```

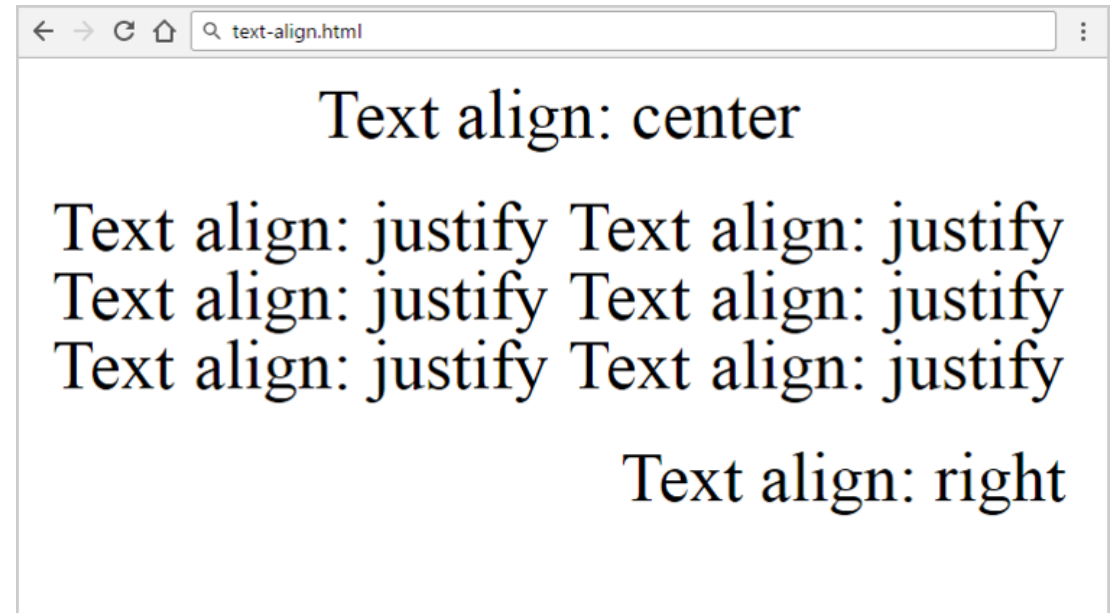


CSS Font Rules: Text-Align

```
<p class="text-align-center">Text...</p>  
<p class="text-align-justify">Text...</p>
```

```
.text-align-center {  
  text-align: center;  
}
```

```
.text-align-justify {  
  text-align: justify;  
}
```

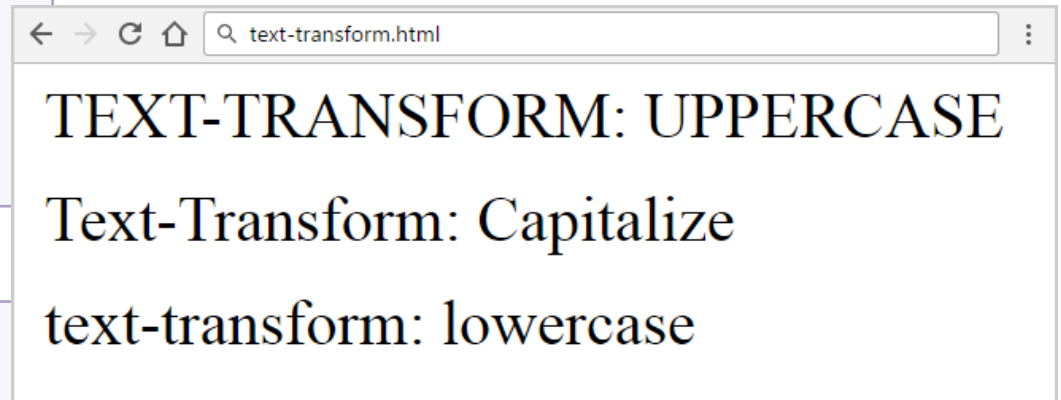


CSS Font Rules: Text-Transform

```
<p class="uppercase">Text...</p>  
<p class="capitalize">Text...</p>
```

```
.uppercase {  
  text-transform: uppercase;  
}
```

```
.capitalize {  
  text-transform: capitalize;  
}
```



Text Shadow

**<blur
radius>**

**<shadow
color>**

```
p {  
  text-shadow: 2px 2px 7px #000;  
}
```

**<horizontal
distance>**

**<vertical
distance>**

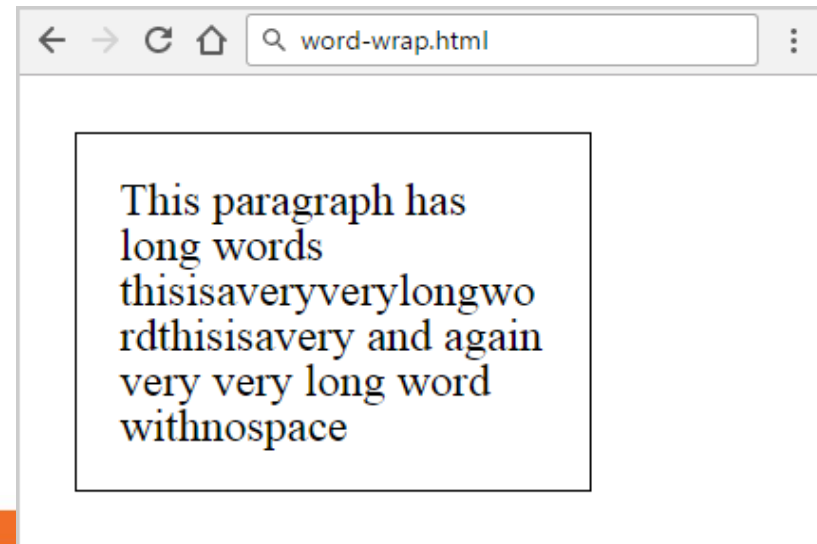
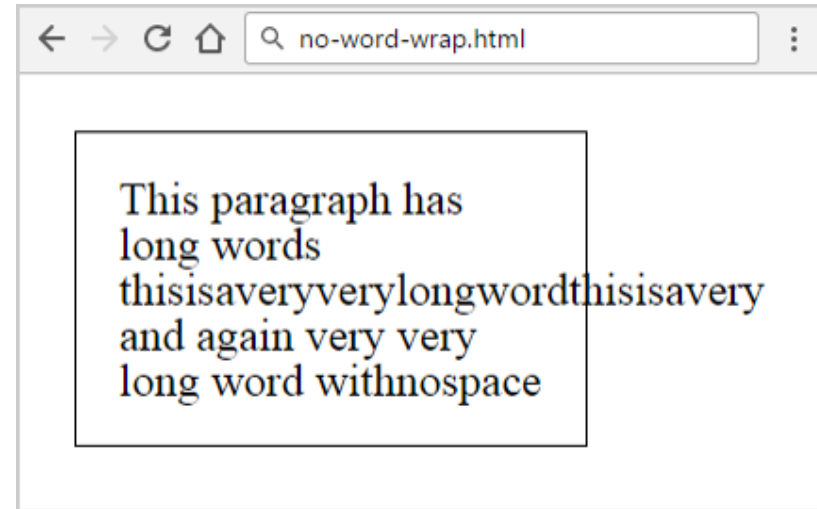


Word Wrapping


```
<p>This paragraph...</p>
```

```
p {  
  word-wrap: normal;  
}
```

```
p {  
  word-wrap: break-word;  
}
```



Problem: Briard History



Briards

A Heart Wrapped in Fur

Briard History

They were originally bred to herd as well as guard flocks of sheep. And they were often left to their own devices in order to accomplish their assigned tasks. This makes the Briard different from those breeds that only guard and those that only herd. The breeds that just herd are often smaller in size, agile, and swift of foot. Those breeds that just guard are usually larger and heavier. Briards were used in all types of herding situations, having the ability to learn many commands and fulfill the jobs expected of them. The Briard was most commonly used as a farm dog in the more crowded farming valleys of France, where row crops were grown. Sheep were allowed to graze the grass strips between crops and Briards were responsible for keeping the sheep moving along these strips, and preventing the sheep from eating the crops. The Briard moved the sheep daily from the farm to the graze areas and back again at night.

by Ivy Duckett

Solution: Briard History (HTML)

```
<main>
  <h1>Briards</h1>
  <h2>A Heart wrapped <span>in</span> fur</h2>
  <article>
    <header>
      <h3><a class="breed"
        href="https://en.wikipedia.org/wiki/Briard">
        Briard History</a></h3>
    </header>
    
    <p><!--TODO put the text here...--></p>
    <p class="credits">by Ivy Duckett</p>
  </article>
</main>
```



Solution: Briard History (CSS)

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```
@import url("https://fonts.googleapis.com/css?family=Lobster");
html { font-size: 16px; }
main {
  margin: 0 auto;
  width: 800px;
  padding: 20px; }
h1, h2, h3, a {
  font-weight: normal;
  color: #0088dd;
  margin: 0;
  text-align: center;
  font-size: 2.1rem;
```

```
  text-decoration: none; }
h1 {
  font-family: Georgia, Times, serif;
  font-size: 3.5em;
  text-shadow: 2px 4px 4px #666666;
  padding-bottom: 10px;
  text-transform: capitalize; }
h2 {
  font-family: Arial, sans-serif;
  font-size: 2.3rem;
  text-transform: capitalize;
  letter-spacing: 0.3rem }
h2 span {
  text-transform: none; }
```

Solution: Briard History (More CSS)

```
article {  
  margin-top: 20px;  
  text-align: justify; }  
p {  
  font-family: Arial,  
    Verdana, sans-serif;  
  line-height: 30px;  
  color: #665544;  
  font-size: 1.4rem;  
}  
.credits {  
  font-style: italic;  
  text-align: right;  
}
```

```
header {  
  margin-bottom: 20px;  
}  
img {  
  width: 200px;  
  float: left;  
  margin-right: 20px;  
}  
p:first-of-type:first-letter {  
  font-weight: bold;  
  font-size: 3.8rem;  
  font-family: 'Lobster', cursive;  
  text-transform: uppercase;  
}
```

Summary

- CSS Selectors

```
span { background: DodgerBlue; }  
span#identified { color: #EEE; }  
span.sky { color: SkyBlue; }
```

- CSS Values

```
#rbg { color: rgb(192, 41, 2) }  
#hex-rgb { color: #C02902; }  
#rgba { color: rgba(27, 3, 5, 0.5) }
```

```
font-size: 20px;  
font-size: 1.4em;  
font-size: 1.4rem;
```

- Styles Priority

```
h1.big { color:red !important }
```