

# CSS INTRODUCTION

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# CSS3

- CSS stands for Cascading Style Sheet
- CSS is the key presentational technology that is used in website design.
- Prior to CSS, nearly all of the presentational attributes of HTML documents were contained within the HTML markup; all font colors, background styles, element alignments, borders and sizes had to be explicitly described, within the HTML.
- As a result of, development of large web sites, where fonts and color information were repeatedly added to every single page, became a long and expensive process.
- CSS solve these problems, by allowing web designers to move much of that formatting information to a separate style sheet resulting in considerably simpler HTML markup.

# CSS3

Filename extension .css

Internet media type text/css

Developed by : Håkon Wium, Lie Bert Bos, World Wide Web Consortium

Initial release December 17, 1996; 20 years ago

Type of format : Style sheet language

A CSS rule consists of a set of style rules that are interpreted by the browser and then applied to the corresponding elements in the document.

# CSS3 ADVANTAGES

## **Separation of content from presentation**

CSS facilitates publication of content in multiple presentation formats based on nominal parameters. Nominal parameters include explicit user preferences, different web browsers, the type of device being used to view the content (a desktop computer or mobile Internet device), the geographic location of the user and many other variables.

## **Site-wide consistency**

When CSS is used effectively, in terms of inheritance and "cascading", a global style sheet can be used to affect and style elements site-wide. If the situation arises that the styling of the elements should be changed or adjusted, these changes can be made by editing rules in the global style sheet. Before CSS, this sort of maintenance was more difficult, expensive and time-consuming.

## **Bandwidth**

A stylesheet, internal or external, specifies the style once for a range of HTML elements selected by class, type or relationship to others. This is much more efficient than repeating style information inline for each occurrence of the element. An external stylesheet is usually stored in the browser cache, and can therefore be used on multiple pages without being reloaded, further reducing data transfer over a network.

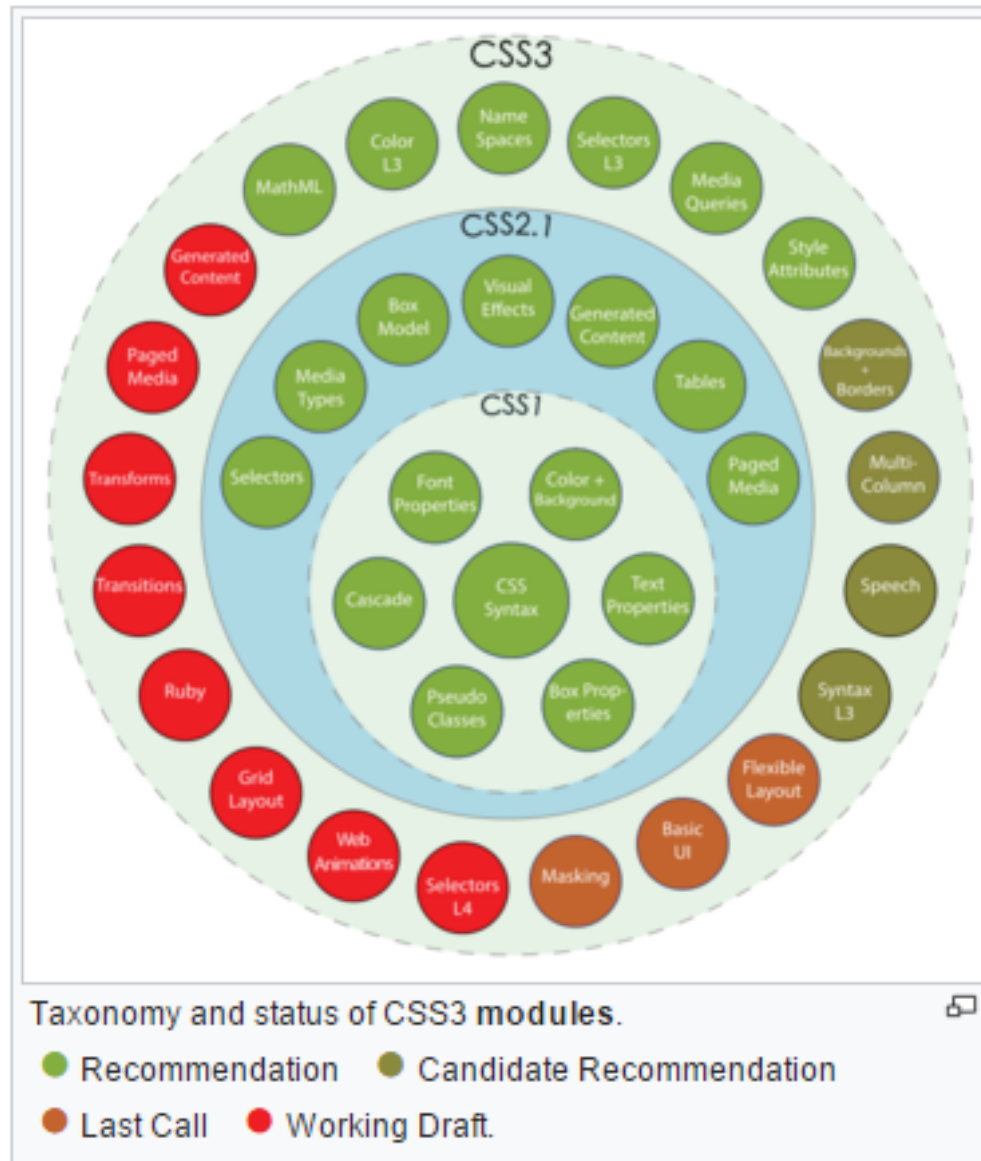
## **Page reformatting**

With a simple change of one line, a different style sheet can be used for the same page. This has advantages for accessibility, as well as providing the ability to tailor a page or site to different target devices. Furthermore, devices not able to understand the styling still display the content.

## **Accessibility**

Without CSS, web designers must typically lay out their pages with techniques such as HTML tables that hinder accessibility for vision-impaired users

# CSS1-3



# CSS3 vs HTML ATTRIBUTE

For example, under pre-CSS HTML, a heading element defined with red text would be written as:

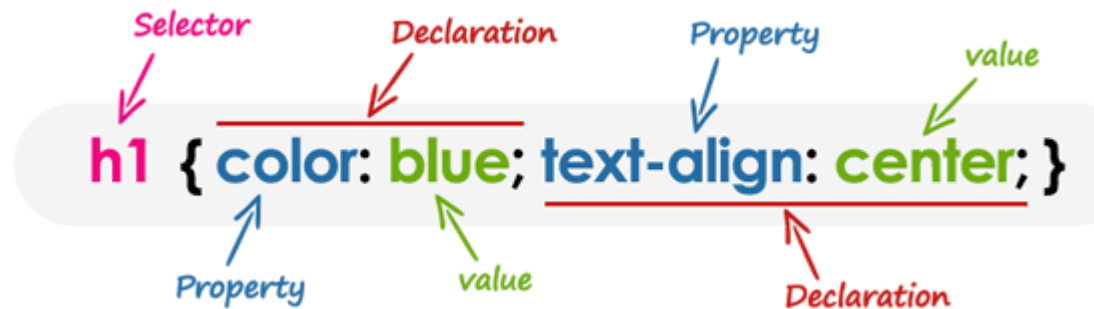
```
<h1><font color="red"> Chapter 1. </font></h1>:
```

Using CSS, the same element can be coded using style properties instead of HTML presentational attributes:

```
<h1 style="color: red;"> Chapter 1. </h1>
```

# CSS3 SYNTAX

- CSS rules have two main parts, a selector and one or more declarations:



# CSS3 SELECTOR

Selectors declare which part of the markup a style applies to by matching tags and attributes in the markup itself.

Selectors may apply to:

1. all elements of a specific type, e.g. the second-level headers h2
2. elements specified by attribute, in particular:
  - 2.1 id: an identifier unique within the document
  - 2.2 class: an identifier that can annotate multiple elements in a document

CSS declaration inside curly brackets with a element property+ colon and value + semicolon

selector = P

element = p

declaration = { font-family: Arial; }

property = font-family

Value = Arial

P { font-family: Arial; }

h1, h2, h3 { color: #ff0000; }

- Using several element comma between



# CSS3 SELECTOR CLASS

Classes and IDs are case-sensitive, start with letters, and can include alphanumeric characters and underscores. A class may apply to any number of instances of any elements. An ID may only be applied to a single element.

```
/* CLASS COOL */  
p.cool {  
  color: #559999;  
}
```

```
<p class="cool"> i am cool class selector</p>
```

i am cool class selector

# CSS3 SELECTOR ID

```
#fname {  
color: #559988;  
}
```

```
<p id="fname"> first name id selector inside p</p>
```

first name id selector inside p

# CSS3 DECLARATION

## Declaration block

A declaration block consists of a list of declarations in braces. Each declaration itself consists of a property, a colon (:), and a value. If there are multiple declarations in a block, a semi-colon (;) must be inserted to separate each declaration.

```
body{  
background: #666666;  
color: #ffaaaa;  
}
```

# CSS3 INTERNAL CSS

An internal CSS code can be typed in the head section of the code. The coding is started with the style tag. For example,

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <style>
      #xyz { color: red; }
    </style>
  </head>
  <body>  <p id="xyz" style="color: blue;"> To demonstrate specificity </p>
  </body>
</html>
```

# CSS3 INTERNAL CSS BODY

```
<style type="text/css">
/* css3 by juha sodervqvist */
body{
background: #666666;
color: #ffaaaa;
}
</style>
```

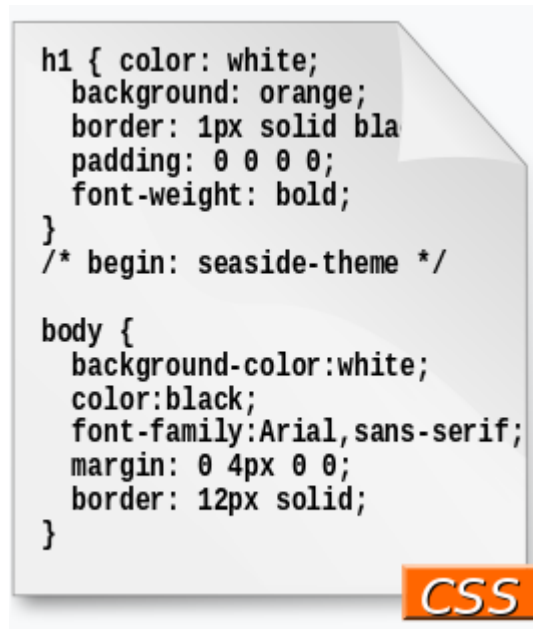
```
<body>
random text.....
```

random text.....

# CSS3 EXTERNAL CSS FILE

An "external" CSS file, as described below, can be associated with an HTML document using the following syntax:

```
<link href="path/to/file.css" rel="stylesheet">
```



# CSS3 DIV TAG

## Definition and Usage

The `<div>` tag defines a division or a section in an HTML document.

The `<div>` tag is used to group block-elements to format them with CSS.

# CSS3 CENTERTEXT CLASS

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

.....HTML CODE

```
<div class="centertext">  
i am text.....  
</div>
```



# CSS3 DIV BLOCK INSIDE HTML

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

```
<div style="color:#0000FF">
```

```
  <h3>This is a heading in a div element</h3>
```

```
  <p>This is some text in a div element.</p>
```

```
</div>
```

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

This is some text.

**This is a heading in a div element**

This is some text in a div element.

This is some text.

# CSS3 TEXT COLOR

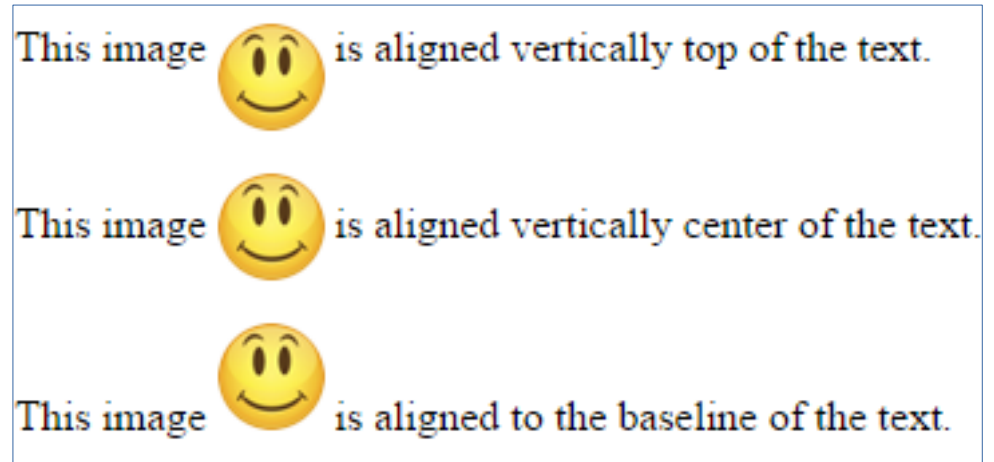
```
<!DOCTYPE html>
<head>
<title>Example of CSS color</title>
<style type="text/css">
  body {
    color: #ffffff;
  }
  h1 {
    color: #ff0000;
  }
  p {
    color: #00ff00;
  }
</style>
</head>
<body>
  <h1>This is a heading</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

**This is a heading**

This is a paragraph.

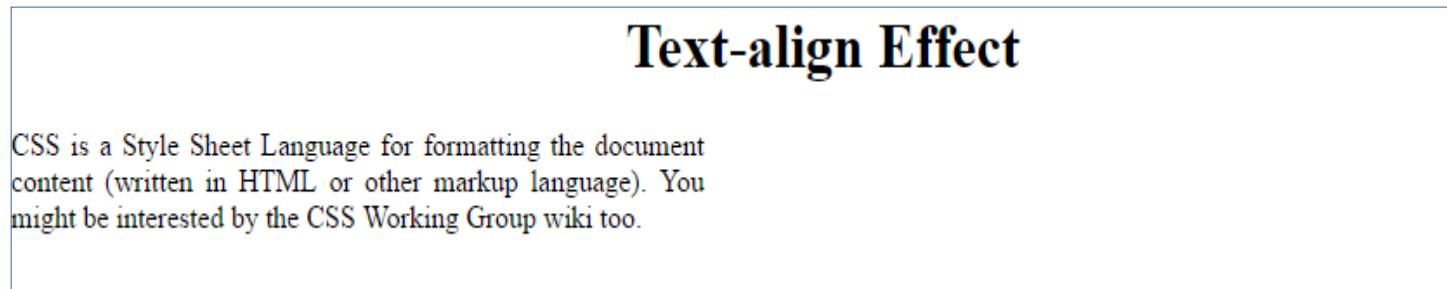
# CSS3 IMAGE VERTICAL ALIGNMENT

```
<!DOCTYPE html>
<head>
<title>Example of vertical alignment of an image</title>
<style type="text/css">
  p.one img{
    vertical-align: top;
  }
  p.two img{
    vertical-align: middle;
  }
  p.three img{
    vertical-align: baseline;
  }
</style>
</head>
<body>
  <p class="one">This image  is aligned vertically top of the text.</p>
  <p class="two">This image  is aligned vertically center of the text.</p>
  <p class="three">This image  is aligned to the baseline of the text.</p>
</body>
</html>
```



# CSS3 TEXT ALIGNMENT

```
<!DOCTYPE html>
<head>
<title>Example of CSS text alignment</title>
<style type="text/css">
  h1 {
    text-align: center;
  }
  p {
    width: 400px;
    text-align: justify;
  }
</style>
</head>
<body>
  <h1>Text-align Effect</h1>
  <p>CSS is a Style Sheet Language for formatting the document content
    (written in HTML or other markup language). You might be interested
    by the CSS Working Group wiki too.</p>
</body>
</html>
```



# CSS3 FONT

```
<!DOCTYPE html>
<head>
  <title>Example of CSS font-family property</title>
  <style type="text/css">
body {
font-family: Arial, Helvetica, sans-serif;
}
h1 {
font-family: "Times New Roman", Times, serif;
}
  </style>
</head>
<body>
<h1>This is a heading</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

**This is a heading**

This is a paragraph.

# CSS3 FONT PROPERTIES

```
<style type="text/css">
```

```
h1 {
```

```
font: bold 2.5em "Times New Roman", Times, serif;
```

```
}
```

```
p {
```

```
font: normal 1.2em Arial, Helvetica, sans-serif;
```

```
}
```

```
</style>
```

**This is a heading**

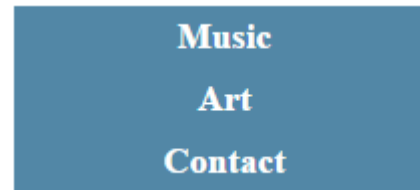
This is a paragraph.

# CSS3 LINK PROPERTIES

```
<style type="text/css">
a:link {
  color: #FF0000;
  text-decoration: none;
}
a:visited {
  color: #00FF00;
}
a:hover {
  color: #FF00FF;
  text-decoration: underline;
}
a:active {
  color: #0000FF;
}
</style>
```

# CSS3 LINK PROPERTIES

```
<style type="text/css">
/* css3 LINKBOX by juha sodervist */
a {
  width: 200px;
  padding: 5px;
  color: #ffffff;
  font-size: 18px;
  background: #5287a6;
  display: block;
  text-align: center;
  font-weight: bold;
  text-decoration: none;
}
a:hover {
  background: #36596d;
}
</style>
```



<-Mouse over Contact

```
<hr>
  <a href="#">Music</a>
  <a href="#">Art</a>
  <a href="#">Contact</a>
<hr>
```



# CSS3 DROP DOWN MENU

```
<style type="text/css">
  ul {
    padding: 0;
    list-style: none;
  }
  ul li {
    width: 100px;
    text-align: center;
    background: #5287a6;
    font-weight: bold;
  }
  ul li a{
    padding: 5px;
    display: block;
    color: #ffffff;
    text-decoration: none;
  }
  ul li a:hover {
    text-decoration: underline;
  }
  ul li ul {
    display: none;
  }
  ul li:hover ul {
    display: block;
  }
</style>
```

Click Me

Click Me  
Item 1  
Item 2  
Item 3

<-Mouse Click ME

```
<ul>
  <li><a href="#">Click Me</a>
    <ul>
      <li><a href="#">Item 1</a></li>
      <li><a href="#">Item 2</a></li>
      <li><a href="#">Item 3</a></li>
    </ul>
  </li>
</ul>
```

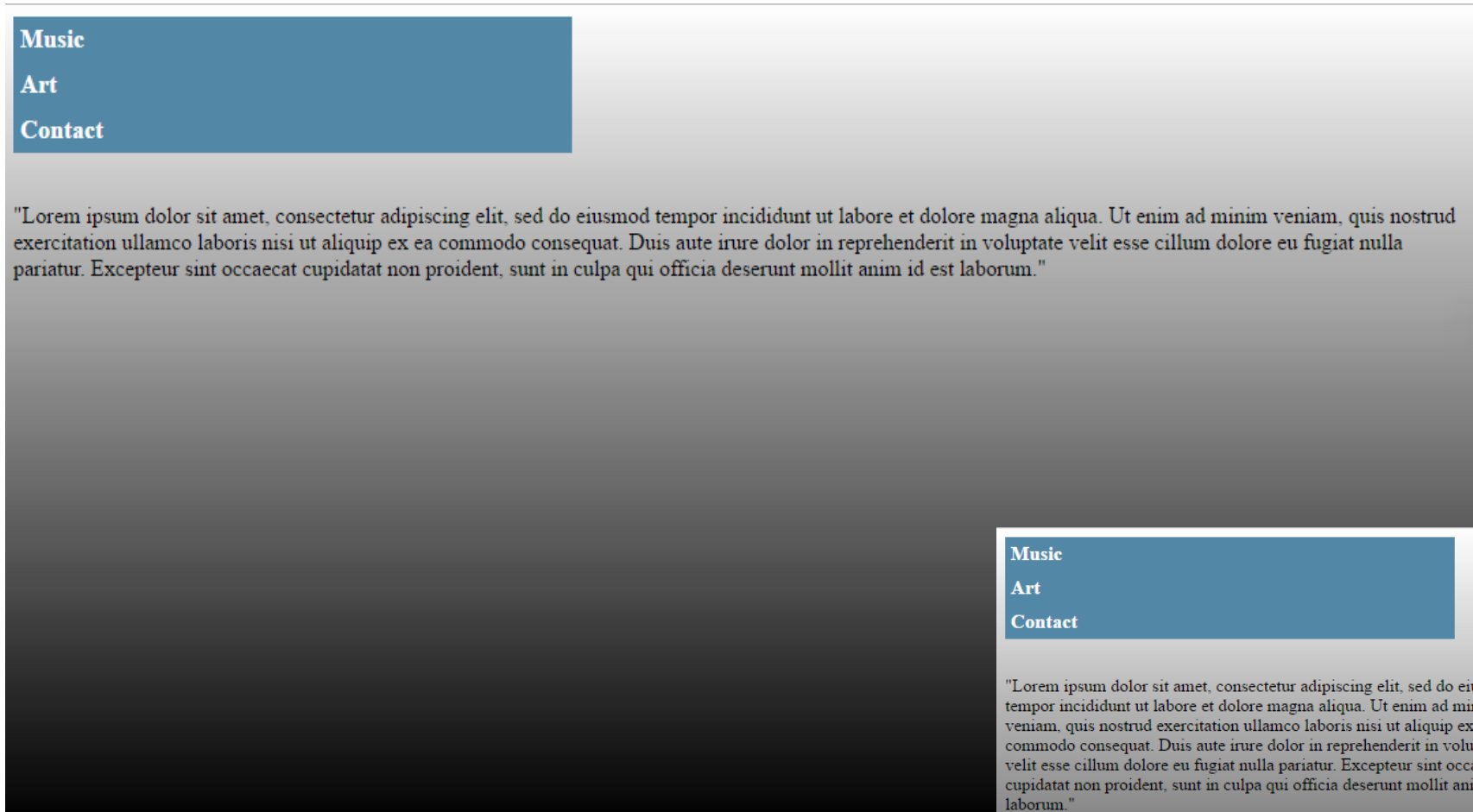
# CSS3 GRADIENT BACKGROUND



Gradient.jpg 556 bytes

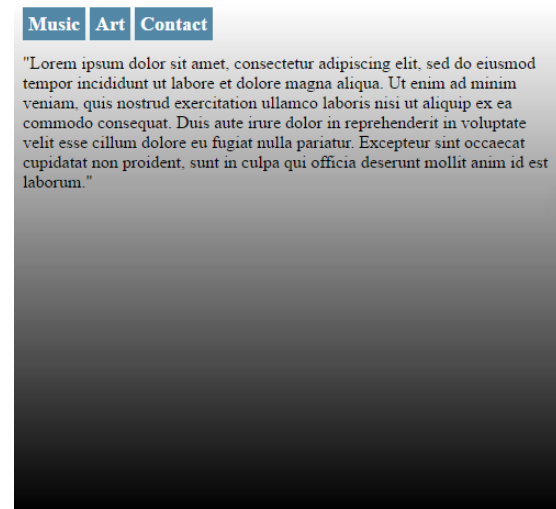
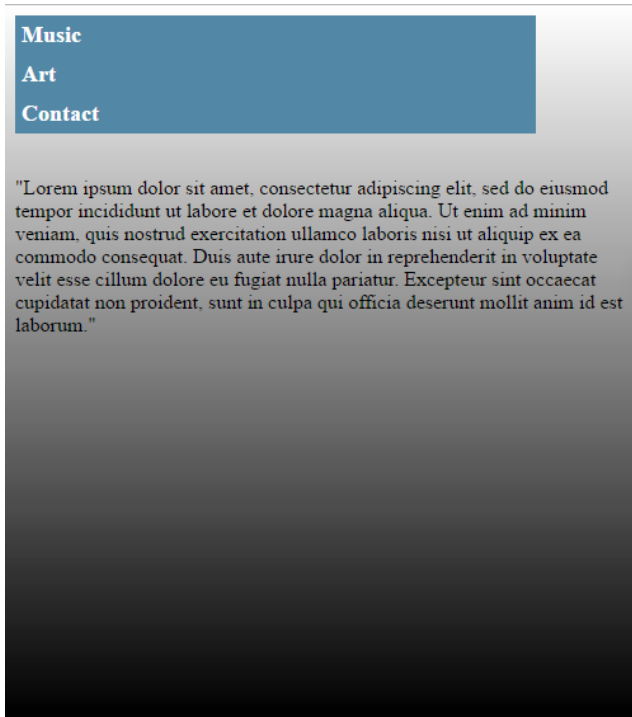
```
<style type="text/css">
/* css3 GRADIENT */
body {
    background-image: url("images/gradient.jpg");
    background-repeat: repeat;
    background-size: 100% 100%;
}
```

# CSS3 GRADIENT BACKGROUND



RESIZE ->

# CSS3 GRADIENT BACKGROUND



```
<style type="text/css">
/* css3 GRADIENT */
body {
    background-image: url("images/gradient.jpg");
    background-repeat: repeat;
    background-size: 100% 100%;
}

/* css3 LINKBOX by juha soderqvist */
a {
    width: 400px;
    padding: 5px;
    color: #ffffff;
    font-size: 18px;
    background: #5287a6;
    display: flex;
    text-align: center;
    font-weight: bold;
    text-decoration: none;
}
a:hover {
    background: #36596d;
}
</style>
```

# CSS3 GRADIENT BACKGROUND

## JUHAX HOMEPAGE

[Music](#) [Art](#) [Contact](#)

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

## JUHAX HOMEPAGE

[Music](#) [Art](#) [Contact](#)

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

## JUHAX HOMEPAGE

[Music](#) [Art](#) [Contact](#)

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

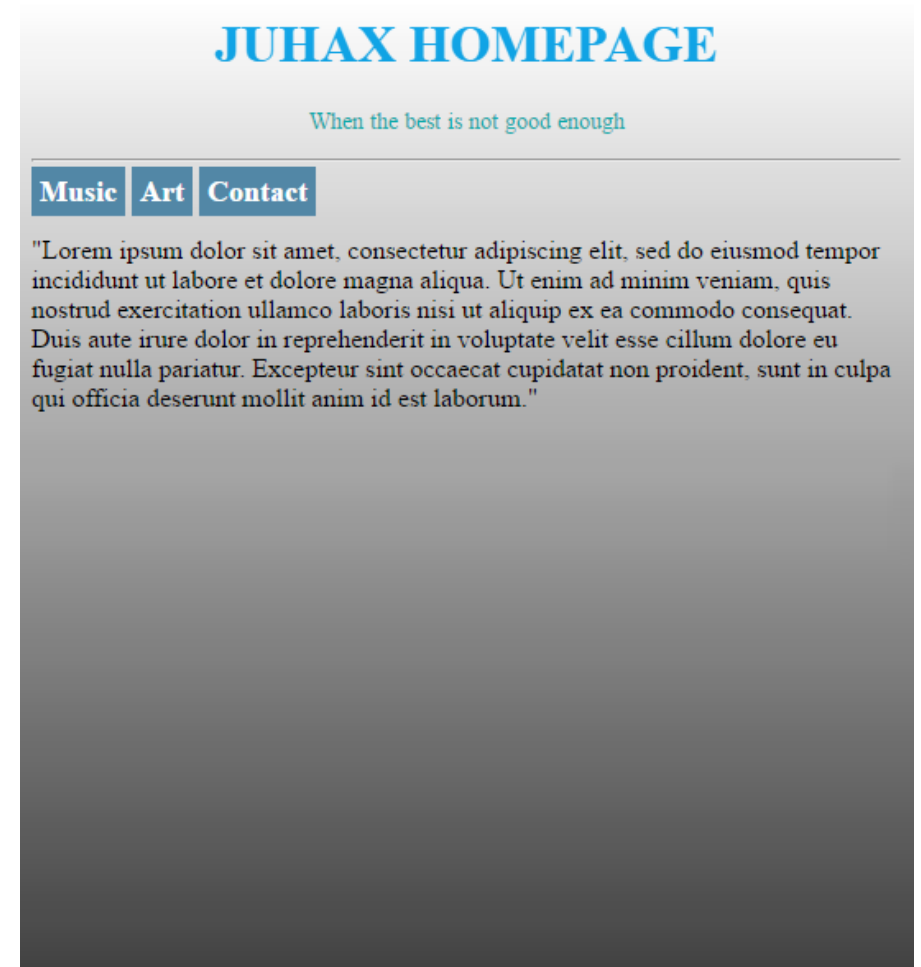
```
div h1 {  
/* mix-blend-mode: overlay; */  
Color: #000000;  
}
```

```
div h1 {  
mix-blend-mode: overlay;  
color: #000000;  
}
```

```
div h1 {  
/* mix-blend-mode: overlay; */  
mix-blend-mode: multiply;  
Color: #666666;  
}
```

# CSS3 CASCADING RULES

```
#slogan {  
/* slogan */  
    color: #111111;  
color: #11aaaa;  
text-align: center;  
font-size: 14px;  
}
```



<p id="slogan"> When the best is not good enough </p>

# CSS3 ROUNDED CORNERS

```
#copyright {  
    color: #eeeeeee;  
    text-align: left;  
    font-size: 10px;  
}
```

```
div.one {  
    background: #222222;  
    color: #eeeeeee;  
    border-radius: 20px;  
}
```



```
<div class="one">  
<p id="copyright">(C)2017 JUHAX </p>  
</div>
```

# CSS3 TABLES

```
<style type="text/css">
```

```
  table {  
    text-align: left;
```

```
}
```

```
  table th {  
    padding: 10px;  
  }
```

```
  table td {  
    padding: 50px;  
  }
```

```
</style>
```

User Info

Name	Email
John	john@mail.com

```
<table border="1">  
  <caption>User Info</caption>  
  <tr>  
    <th>Name</th>  
    <th>Email</th>  
  </tr>  
  <tr>  
    <td>John</td>  
    <td>john@mail.com</td>  
  </tr>  
</table>
```



# CSS3 TABLES

```
<style type="text/css">
```

```
  table {
```

```
width: 300px;
```

```
  text-align: left;
```

```
}
```

```
</style>
```

Name	Email
John	john@mail.com

# CSS3 TABLES

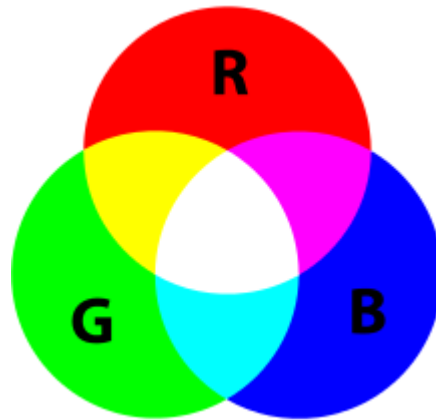
```
<style type="text/css">
/* css3 TABLE */
table {
  border-collapse: collapse;
  width: 100%;
}
th, td {
  padding: 4px;
  text-align: left;
  border-bottom: 1px solid #ddd;
}
</style>
.....
<table cellspacing="0" border="0">

<tr>
<th>Tag</th>
<th>Description</th>
</tr>
<tr>
<td>&lt;!...--&gt;</td>
<td>Defines a comment</td>
</tr>
<tr>
<td height="17" align="left">&lt;!DOCTYPE&gt; </td>
<td align="left">Defines the document type</td>
</tr>
<tr>
<td height="17" align="left">&lt;a&gt;</td>
<td align="left">Defines a hyperlink</td>
</tr>
</table>
```

Tag	Description
<code>&lt;!...--&gt;</code>	Defines a comment
<code>&lt;!DOCTYPE&gt;</code>	Defines the document type
<code>&lt;a&gt;</code>	Defines a hyperlink

`&lt;` = `<`  
`&gt;` = `>`

# CSS3 COLORS



RGB - RED GREEN BLUE

Arctic Lime



Hex triplet `#D0FF14`

Lime Green



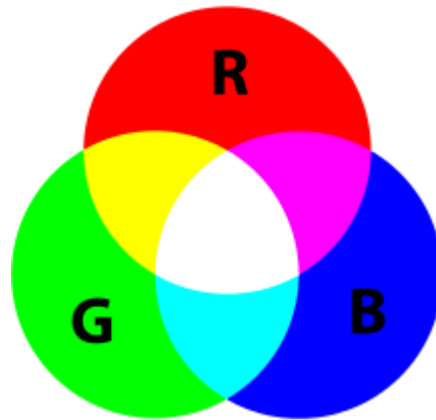
Hex triplet `#32CD32`

Blue



Hex triplet `#0000FF`

# CSS3 COLORS



## JUHAX HOMEPAGE

When the best is not good enough

[Music](#) [Art](#) [Contact](#)

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

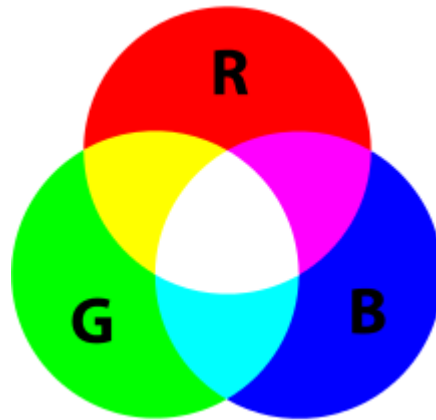
©2017 JUHAX

Navy

Decimal Code RGB = 0,0,128  
Hex Code RGB = 000080

```
a:hover {  
    background: #000080;  
}
```

# CSS3 COLOR NAMES



Color Name	HEX	Color
<u>AliceBlue</u>	<u>#F0F8FF</u>	
<u>AntiqueWhite</u>	<u>#FAEBD7</u>	
<u>Aqua</u>	<u>#00FFFF</u>	
<u>Aquamarine</u>	<u>#7FFFD4</u>	
<u>Azure</u>	<u>#F0FFFF</u>	
<u>Beige</u>	<u>#F5F5DC</u>	
<u>Bisque</u>	<u>#FFE4C4</u>	
<u>Black</u>	<u>#000000</u>	

```
a:hover {  
    background: white;  
}
```

# CSS3 mix-blend-mode

LOGO: juhax.png

White background

CSS code:

```
div.logo {  
text-align: center;  
mix-blend-mode: multiply;  
}
```

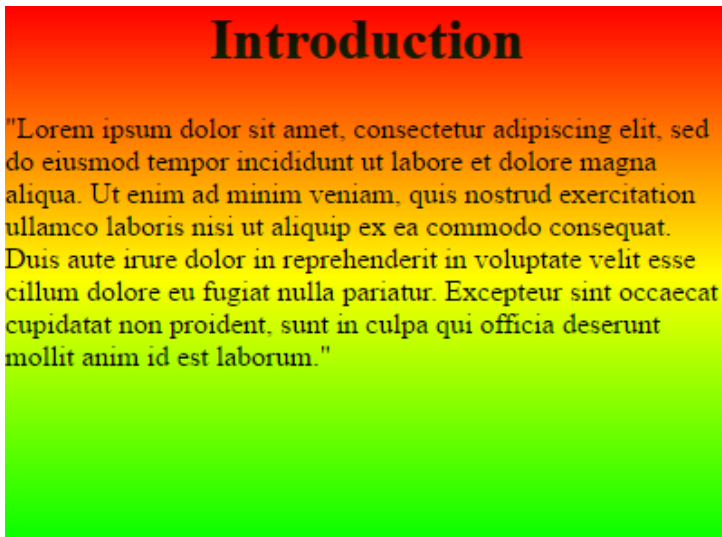


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# CSS3 DRAWING A GRADIENT

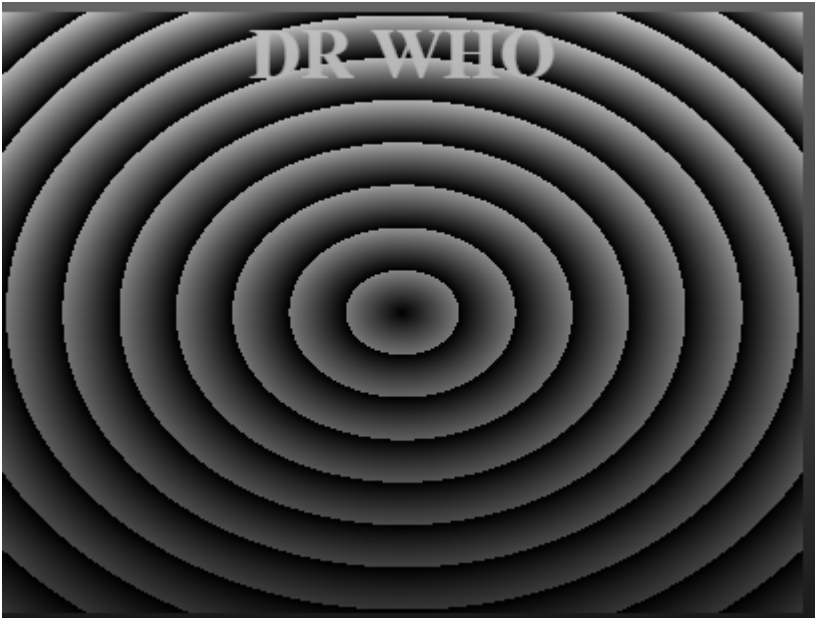
```
.gradient {  
  width: 400px;  
  height: 300px;  
  /* Fallback for browsers that don't support gradients */  
  background: red;  
  /* For Safari 5.1 to 6.0 */  
  background: -webkit-linear-gradient(red, yellow, lime);  
  /* For Internet Explorer 10 */  
  background: -ms-linear-gradient(red, yellow, lime);  
  /* Standard syntax */  
  background: linear-gradient(red, yellow, lime);  
}
```



```
<div class="gradient">  
<h1>Introduction</h1>  
<p>  
  "Lorem .....a qui officia deserunt mollit anim id est  
  laborum." </p>  
</div>
```

# CSS3 DRAWING A GRADIENT

```
.doctorwho {  
  /* Doctor WHO - Juha Söderqvist */  
  width: 400px;  
  height: 300px;  
  /* Standard syntax */  
  background: repeating-radial-gradient(black, white 10%, lime 10%);  
  color: #ffffff;  
  font-size: 24px;  
  text-align: center;  
  mix-blend-mode: overlay;  
}
```

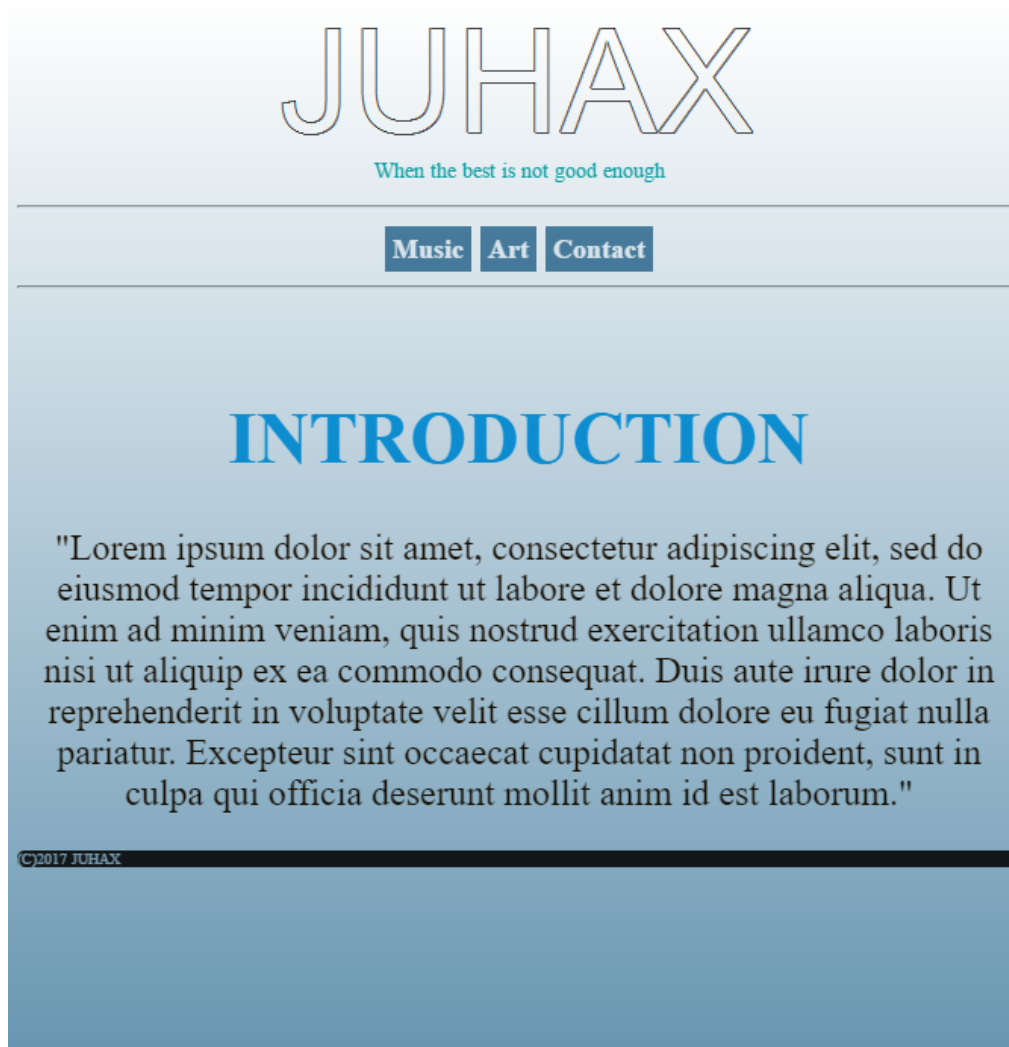


```
<div class="doctorwho">  
<h2>DR WHO</h2>  
</div>
```



# CSS3 DRAWING A GRADIENT

Drawing a background gradient



```
/* css3 GRADIENT */
body {

    /* Standard syntax */
    background: linear-
gradient(#ffffff, #5287a6);
    color: #221100;
    font-size: 24px;
    text-align: center;
    mix-blend-mode: multiply;
}
div.logo {
/* background: #ffffff; */
/* color: #eeeeee; */
/* border-radius: 1px; */
text-align: center;
mix-blend-mode: multiply;
}
```

# CSS3 HTML Character Entities

Result	Description	Entity Name	Entity Number
--------	-------------	-------------	---------------

non-breaking space	&nbsp;	&#160;
--------------------	--------	--------

<	less than	&lt;	&#60;
---	-----------	------	-------

>	greater than	&gt;	&#62;
---	--------------	------	-------

&	ampersand	&amp;	&#38;
---	-----------	-------	-------

"	double quotation mark	&quot;	&#34;
---	-----------------------	--------	-------

'	single quotation mark (apostrophe)	&apos;	&#39;
---	------------------------------------	--------	-------

¢	cent	&cent;	&#162;
---	------	--------	--------

£	pound	&pound;	&#163;
---	-------	---------	--------

¥	yen	&yen;	&#165;
---	-----	-------	--------

€	euro	&euro;	&#8364;
---	------	--------	---------

©	copyright	&copy;	&#169;
---	-----------	--------	--------

®	registered trademark	&reg;	&#174;
---	----------------------	-------	--------

# CSS3 HTML SYMBOLS

**<p>I will display &euro;</p>**

**<p>I will display &#8364;</p>**

**<p>I will display &#x20AC;</p>**

.....

**I will display €**

**I will display €**

**I will display €**

# symbols

- Punctuation .
- apostrophe ' '
- brackets [ ] ( ) { } ‹ ›
- colon :
- comma, ‘ ’ ,
- dash— — — —
- ellipsis ... ... . . .
- exclamation mark !
- full stop, period .
- guillemets ‹ › ‹‹ ››
- hyphen-
- hyphen-minus -
- question mark ?
- quotation marks ‘ ’ “ ” ’ ’ ’ ’
- semicolon ;
- slash, stroke, solidus //
- 

ampersand &  
asterisk \*  
at sign @  
backslash \  
bullet •  
caret ^  
dagger † ‡  
degree °  
ditto mark " "  
inverted exclamation mark ¡  
inverted question mark ¿  
note※  
number sign, pound, hash, octothorpe #  
numero sign №  
obelus ÷  
multiplication sign ×  
ordinal indicator <sup>o</sup> a  
percent, per mil ‰ ‰  
plus and minus + -  
equals sign =  
basis point ‰  
pilcrow ¶  
prime ' " '''  
section sign §  
tilde ~  
underscore, understrike       
vertical bar, pipe, broken bar | ||