

Computer Science Principles

Web Programming

Web-Presentation Design with CSS

CHAPTER 13: COLOR AND BACKGROUND

DR. ERIC CHOU

IEEE SENIOR MEMBER



CSS3

Chapter 11: CSS Hierarchy and Selectors

Chapter 12: Text, Image and Foreground (Contents)

Chapter 13: Color and Background (Contents)

Chapter 14: Box Model (Padding, Border, and Margin)

Chapter 15: Layout Management (Floating and Positioning: where should the Element go)

Chapter 16: Layout Management (Page Level Planning)

Chapter 17: Layout Management (Transition, Transforms, and Animation: space and time domain transformation)

Chapter 18: CSS Techniques (Put Everything Together)



Overview Color

LECTURE 1



Color Value

Color Name: black, white, red, blue, green

rgb() function: `rgb(red-value, green_value, blue_value)`

Three tuple values from 0 to 255

Hexadecimal RGB Code: `#RRGGBB;`

Red, Green and Blue all two hexadecimal digit (half byte)

Condensed RGB Code: `#RGB;`

Red, Green and Blue all one hexadecimal digit (half byte)

Color Name: CSS2.1

black (#000000)	silver (#C0C0C0)	gray (#808080)	white (#FFFFFF)
maroon (#800000)	red (#FF0000)	purple (#800080)	fuchsia (#FF00FF)
green (#008000)	lime (#00FF00)	olive (#808000)	yellow (#FFFF00)
navy (#000080)	blue (#0000FF)	teal (#008080)	aqua (#00FFFF)

CSS3 Color Name

Purple 800080	RebeccaPurple 663399	Red FF0000
RosyBrown BC8F8F	RoyalBlue 4169E1	SaddleBrown 8B4513
Salmon FA8072	SandyBrown F4A460	SeaGreen 2E8B57
SeaShell FFF5EE	Sienna A0522D	Silver C0C0C0
SkyBlue 87CEEB	SlateBlue 6A5ACD	SlateGray 708090
SlateGrey 708090	Snow FFFAFA	SpringGreen 00FF7F
SteelBlue 4682B4	Tan D2B48C	Teal 008080
Thistle D8BFD8	Tomato FF6347	Turquoise 40E0D0
Violet EE82EE	Wheat F5DEB3	White FFFFFF
WhiteSmoke F5F5F5	Yellow FFFF00	YellowGreen 9ACD32

AliceBlue F0F8FF	AntiqueWhite FAEBD7	Aqua 00FFFF
Aquamarine 7FFFD4	Azure F0FFFF	Beige F5F5DC
Bisque FFE4C4	Black 000000	BlanchedAlmond FFEBCD
Blue 0000FF	BlueViolet 8A2BE2	Brown A52A2A
BurlyWood DEB887	CadetBlue 5F9EA0	Chartreuse 7FFF00
Chocolate D2691E	Coral FF7F50	CornflowerBlue 6495ED
Cornsilk FFF8DC	Crimson DC143C	Cyan 00FFFF
DarkBlue 00008B	DarkCyan 008B8B	DarkGoldenrod B8860B
DarkGray A9A9A9	DarkGreen 006400	DarkGrey A9A9A9
DarkKhaki BDB76B	DarkMagenta 8B008B	DarkOliveGreen 556B2F
DarkOrange FF8C00	DarkRed 8B0000	DarkSalmon E9967A
DarkSeaGreen 8FBC8F	DarkSlateBlue 483D8B	DarkSlateGray 2F4F4F
DarkSlateGrey 2F4F4F	DarkTurquoise 00CED1	DarkViolet 9400D3

DeepPink FF1493	DeepSkyBlue 00BFFF	DimGray 696969
DimGrey 696969	DodgerBlue 1E90FF	FireBrick B22222
FloralWhite FFFAF0	ForestGreen 228B22	Fuchsia FF00FF
Gainsboro DCDCDC	GhostWhite F8F8FF	Gold FFD700
Goldenrod DAA520	Gray 808080	Gray 808080
Green 008000	GreenYellow ADFF2F	HoneyDew F0FFF0
HotPink FF69B4	IndianRed CD5C5C	Indigo 4B0082
Ivory FFFFF0	Khaki F0E68C	Lavender E6E6FA
LavenderBlush FFF0F5	LawnGreen 7CFC00	LemonChiffon FFFACD
LightBlue ADD8E6	LightCoral F08080	LightCyan E0FFFF
LightGoldenrodYellow FAFAD2	LightGray D3D3D3	LightGreen 90EE90
LightGrey D3D3D3	LightPink FFB6C1	LightSalmon FFA07A
LightSeaGreen 20B2AA	LightSkyBlue 87CEFA	LightSlateGray 778899

LightSlateGrey 778899	LightSteelBlue B0C4DE	LightYellow FFFFE0
Lime 00FF00	LimeGreen 32CD32	Linen FAF0E6
Magenta FF00FF	Maroon 800000	MediumAquamarine 66CDAA
MediumBlue 0000CD	MediumOrchid BA55F3	MediumPurple 9370DB
MediumSeaGreen 3CB371	MediumSlateBlue 7B68EE	MediumSpringGreen 00FA9A
MediumTurquoise 48D1CC	MediumVioletRed C71585	MidnightBlue 191970
MintCream F5FFFA	MistyRose FFE4E1	Moccasin FFE4B5
NavajoWhite FFDEAD	Navy 000080	OldLace FDF5E6
Olive 808000	OliveDrab 6B8E23	Orange FFA500
OrangeRed FF4500	Orchid DA70D6	PaleGoldenrod EEE8AA
PaleGreen 98FB98	PaleTurquoise AFEEEE	PaleVioletRed DB7093
PapayaWhip FFEFD5	PeachPuff FFDAB9	Peru CD853F
Pink FFC0CB	Plum DDA0DD	PowderBlue B0E0E6

rgb() function

- If you prefer, you can use functional notation for a color value, with decimal numbers from 0 to 255.
For example: **rgb**(250,75,155)
- To get an alpha channel, use **rgba**, and four numbers.
- The alpha value, confusingly, is a number from 0 to 1.0, not 0 to 255.
For example: **rgba**(250,75,155,0.4)

Read more: <https://html.com/blog/design/html-colors/#ixzz5mn5elcXv>



`rgba(0, 0, 255, 0.2)`

`rgba(0, 0, 255, 0.4)`

`rgba(0, 0, 255, 0.6)`

`rgba(0, 0, 255, 0.8)`

`rgba(0, 0, 255, 1)`

RGB Code

Eight Color Corners:

#000000: black

#0000FF: blue

#00FF00: green (lime)

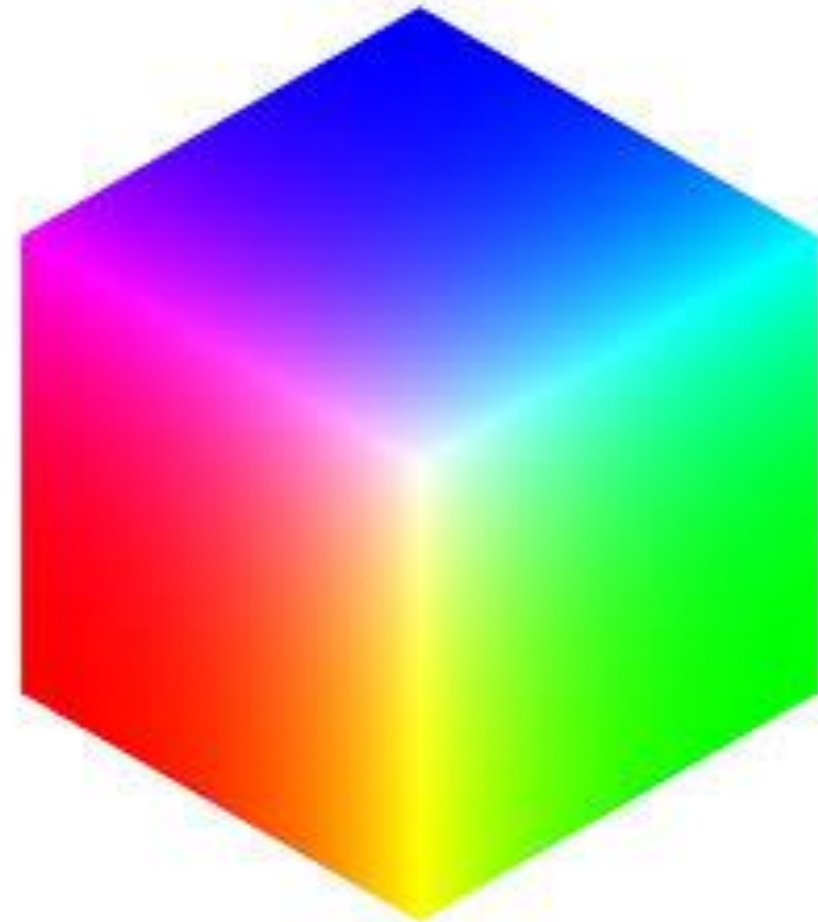
#FF0000: red

#00FFFF: cyan (aqua)

#FF00FF: magenta (fuchsia)

#FFFF00: yellow

#FFFFFF: white



CSS3 Colors RGB Code

Reds			Pinks			Yellows		
IndianRed	CD5C5C	205,92,92	Pink	FFC0CB	255,192,203	Gold	FFD700	255,215,0
LightCoral	F08080	240,128,128	LightPink	FFB6C1	255,182,193	Yellow	FFFF00	255,255,0
Salmon	FA8072	250,128,114	HotPink	FF69B4	255,105,180	LightYellow	FFFFE0	255,255,224
DarkSalmon	E9967A	233,150,122	DeepPink	FF1493	255,20,147	LemonChiffon	FFFACD	255,250,205
LightSalmon	FFA07A	255,160,122	MediumVioletRed	C71585	199,21,133	LightGoldenrodYellow	FAFAD2	250,250,210
Crimson	DC143C	220,20,60	PaleVioletRed	DB7093	219,112,147	PapayaWhip	FFEFD5	255,239,213
Red	FF0000	255,0,0	Oranges			Moccasin	FFE4B5	255,228,181
FireBrick	B22222	178,34,34	Coral	FF7F50	255,127,80	PeachPuff	FFDAB9	255,218,185
DarkRed	8B0000	139,0,0	Tomato	FF6347	255,99,71	PaleGoldenrod	EEE8AA	238,232,170
			OrangeRed	FF4500	255,69,0	Khaki	F0E68C	240,230,140
			DarkOrange	FF8C00	255,140,0	DarkKhaki	BDB76B	189,183,107
			Orange	FFA500	255,165,0			

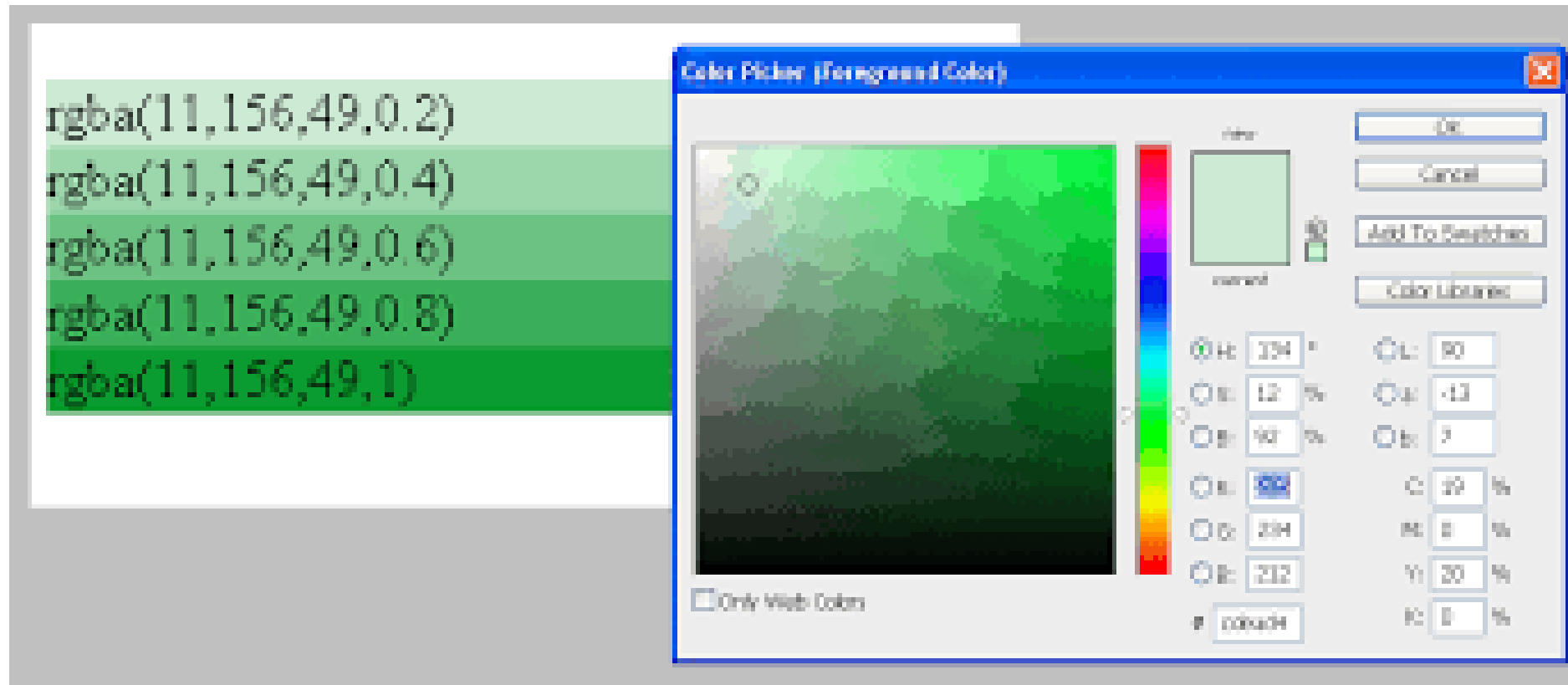
Purples			Greens			DarkSeaGreen	8FBC8F	143,188,143	DeepSkyBlue	00BFFF	0,191,255
Lavender	E6E6FA	230,230,250	GreenYellow	ADFF2F	173,255,47	LightSeaGreen	20B2AA	32,178,170	DodgerBlue	1E90FF	30,144,255
Thistle	D8BFD8	216,191,216	Chartreuse	7FFF00	127,255,0	DarkCyan	008B8B	0,139,139	CornflowerBlue	6495ED	100,149,237
Plum	DDA0DD	221,160,221	LawnGreen	7CFC00	124,252,0	Teal	008080	0,128,128	RoyalBlue	4169E1	65,105,225
Violet	EE82EE	238,130,238	Lime	00FF00	0,255,0	Blues/Cyans			Blue	0000FF	0,0,255
Orchid	DA70D6	218,112,214	LimeGreen	32CD32	50,205,50	Aqua	00FFFF	0,255,255	MediumBlue	0000CD	0,0,205
Fuchsia	FF00FF	255,0,255	PaleGreen	98FB98	152,251,152	Cyan	00FFFF	0,255,255	DarkBlue	00008B	0,0,139
Magenta	FF00FF	255,0,255	LightGreen	90EE90	144,238,144	LightCyan	E0FFFF	224,255,255	Navy	000080	0,0,128
MediumOrchid	BA55D3	186,85,211	MediumSpringGreen	00FA9A	0,250,154	PaleTurquoise	AFEEEE	175,238,238	MidnightBlue	191970	25,25,112
MediumPurple	9370DB	147,112,219	SpringGreen	00FF7F	0,255,127	Aquamarine	7FFFD4	127,255,212			
BlueViolet	8A2BE2	138,43,226	MediumSeaGreen	3CB371	60,179,113	Turquoise	40E0D0	64,224,208			
DarkViolet	9400D3	148,0,211	SeaGreen	2E8B57	46,139,87	MediumTurquoise	48D1CC	72,209,204			
DarkOrchid	9932CC	153,50,204	ForestGreen	228B22	34,139,34	DarkTurquoise	00CED1	0,206,209			
DarkMagenta	8B008B	139,0,139	Green	008000	0,128,0	CadetBlue	5F9EA0	95,158,160			
Purple	800080	128,0,128	DarkGreen	006400	0,100,0	SteelBlue	4682B4	70,130,180			
RebeccaPurple	663399	102,51,153	YellowGreen	9ACD32	154,205,50	LightSteelBlue	B0C4DE	176,196,222			
Indigo	4B0082	75,0,130	OliveDrab	6B8E23	107,142,35	PowderBlue	B0E0E6	176,224,230			
MediumSlateBlue	7B68EE	123,104,238	Olive	808000	128,128,0	LightBlue	ADD8E6	173,216,230			
SlateBlue	6A5ACD	106,90,205	DarkOliveGreen	556B2F	85,107,47	SkyBlue	87CEEB	135,206,235			
DarkSlateBlue	483D8B	72,61,139	MediumAquamarine	66CDAA	102,205,170	LightSkyBlue	87CEFA	135,206,250			

Browns			Whites			Greys		
Cornsilk	FFF8DC	255,248,220	White	FFFFFF	255,255,255	Gainsboro	DCDCDC	220,220,220
BlanchedAlmond	FFEBCD	255,235,205	Snow	FFFAFA	255,250,250	LightGray	D3D3D3	211,211,211
Bisque	FFE4C4	255,228,196	Honeydew	F0FFF0	240,255,240	LightGrey	D3D3D3	211,211,211
NavajoWhite	FFDEAD	255,222,173	MintCream	F5FFFA	245,255,250	Silver	C0C0C0	192,192,192
Wheat	F5DEB3	245,222,179	Azure	F0FFFF	240,255,255	DarkGray	A9A9A9	169,169,169
BurlyWood	DEB887	222,184,135	AliceBlue	F0F8FF	240,248,255	DarkGrey	A9A9A9	169,169,169
Tan	D2B48C	210,180,140	GhostWhite	F8F8FF	248,248,255	Gray	808080	128,128,128
RosyBrown	BC8F8F	188,143,143	WhiteSmoke	F5F5F5	245,245,245	Grey	808080	128,128,128
SandyBrown	F4A460	244,164,96	Seashell	FFF5EE	255,245,238	DimGray	696969	105,105,105
Goldenrod	DAA520	218,165,32	Beige	F5F5DC	245,245,220	DimGrey	696969	105,105,105
DarkGoldenrod	B8860B	184,134,11	OldLace	FDF5E6	253,245,230	LightSlateGray	778899	119,136,153
Peru	CD853F	205,133,63	FloralWhite	FFFAF0	255,250,240	LightSlateGrey	778899	119,136,153
Chocolate	D2691E	210,105,30	Ivory	FFFFF0	255,255,240	SlateGray	708090	112,128,144
SaddleBrown	8B4513	139,69,19	AntiqueWhite	FAEBD7	250,235,215	SlateGrey	708090	112,128,144
Sienna	A0522D	160,82,45	Linen	FAF0E6	250,240,230	DarkSlateGray	2F4F4F	47,79,79
Brown	A52A2A	165,42,42	LavenderBlush	FFF0F5	255,240,245	DarkSlateGrey	2F4F4F	47,79,79
Maroon	800000	128,0,0	MistyRose	FFE4E1	255,228,225	Black	000000	0,0,0

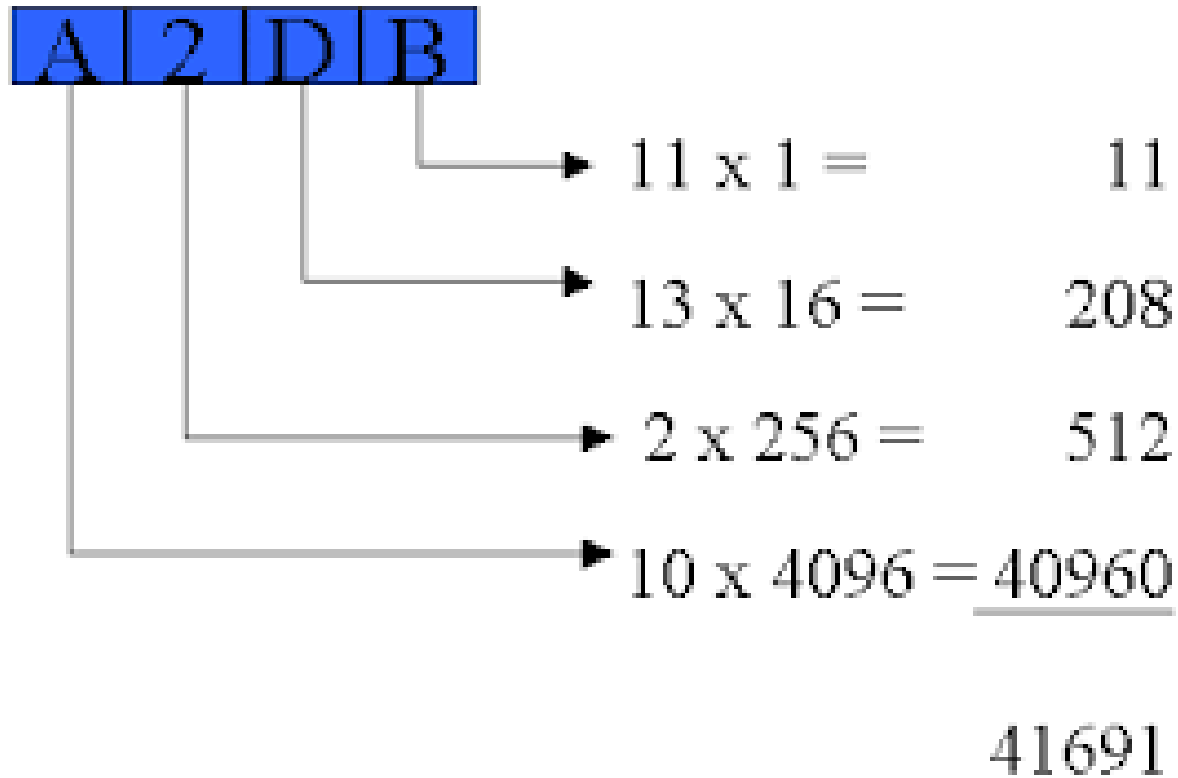
FFF FFF	CCC CCC	999 999	666 666	333 333	000 000	FFC C00	FF9 900	FF6 600	FF3 300						
99C C00					CC9 900	FFC C33	FFC C66	FF9 966	FF6 633	CC3 300					CC0 033
CCF F00	CCF F33	333 300	666 600	999 900	CCC C00	FFF F00	CC9 933	CC6 633	330 000	660 000	990 000	CC0 000	FF0 000	FF3 366	FF0 033
99F F00	CCF F66	99C C33	666 633	999 933	CCC C33	FFF F33	996 600	993 300	663 333	993 333	CC3 333	FF3 333	CC3 366	FF6 699	FF0 066
66F F00	99F F66	66C C33	669 900	999 966	CCC C66	FFF F66	996 633	663 300	996 666	CC6 666	FF6 666	990 033	CC3 399	FF6 6CC	FF0 099
33F F00	66F F33	339 900	66C C00	99F F33	CCC C99	FFF F99	CC9 966	CC6 600	CC9 999	FF9 999	FF3 399	CC0 066	990 066	FF3 3CC	FF0 0CC
00C C00	33C C00	336 600	669 933	99C C66	CCF F99	FFF FCC	FFC C99	FF9 933	FFC CCC	FF9 9CC	CC6 699	993 366	660 033	CC0 099	330 033
33C C33	66C C66	00F F00	33F F33	66F F66	99F F99	CCF FCC				CC9 9CC	996 699	993 399	990 099	663 366	660 066
006 600	336 633	009 900	339 933	669 966	99C C99				FFC CFF	FF9 9FF	FF6 6FF	FF3 3FF	FF0 0FF	CC6 6CC	CC3 3CC
003 300	00C C33	006 633	339 966	66C C99	99F FCC	CCF FFF	339 9FF	99C CFF	CCC CFF	CC9 9FF	996 6CC	663 399	330 066	990 0CC	CC0 0CC
00F F33	33F F66	009 933	00C C66	33F F99	99F FFF	99C CCC	006 6CC	669 9CC	999 9FF	999 9CC	993 3FF	660 0CC	660 099	CC3 3FF	CC0 0FF
00F F66	66F F99	33C C66	009 966	66F FFF	66C CCC	669 999	003 366	336 699	666 6FF	666 6CC	666 699	330 099	993 3CC	CC6 6FF	990 0FF
00F F99	66F FCC	33C C99	33F FFF	33C CCC	339 999	336 666	006 699	003 399	333 3FF	333 3CC	333 399	333 366	663 3CC	996 6FF	660 0FF
00F FCC	33F FCC	00F FFF	00C CCC	009 999	006 666	003 333	339 9CC	336 6CC	000 0FF	000 0CC	000 099	000 066	000 033	663 3FF	330 0FF
00C C99					009 9CC	33C CFF	66C CFF	669 9FF	336 6FF	003 3CC					330 0CC
Condensed RGB Code						00C CFF	009 9FF	006 6FF	003 3FF						

RGBA code (A for alpha channel)

Alpha channel is for the opaque (opposite of transparency)



Hexadecimal Numbers



Hexadecimal	Binary	Decimal
0	0000	0
1	0001	1
2	0010	2
3	0011	3
4	0100	4
5	0101	5
6	0110	6
7	0111	7
8	1000	8
9	1001	9
A	1010	10
B	1011	11
C	1100	12
D	1101	13
E	1110	14
F	1111	15

HEXADECIMAL COLOR CODES

Red
Color
Code

Green
Color
Code

Blue
Color
Code

RR GG BB

— Signifies Hex Color Code

Each of the two-digit color codes
are in the range 00...FF hexadecimal

EXAMPLES

#FFCC99 #3C00A6



Foreground

LECTURE 2



Foreground, Background, Alpha-channel, and Layers

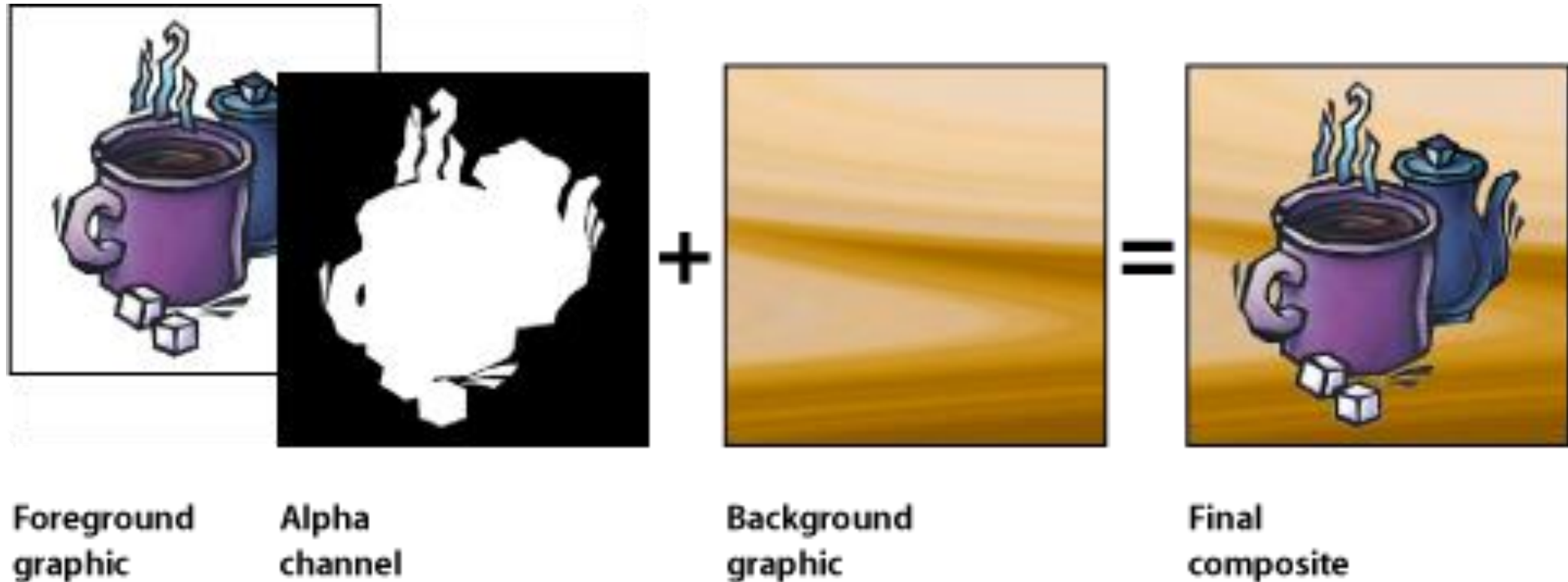
- HTML does not support Layers. Layers are for other graphics art and image processing.
- **Foreground** means elements of interests.
- **Background** means not changing/moving uninterested things.
- **Layers** mean element or objects of different level of interests. Higher interests are put on top and lower ones are at the bottom (more closer to background). Layers can be raised or lowered.

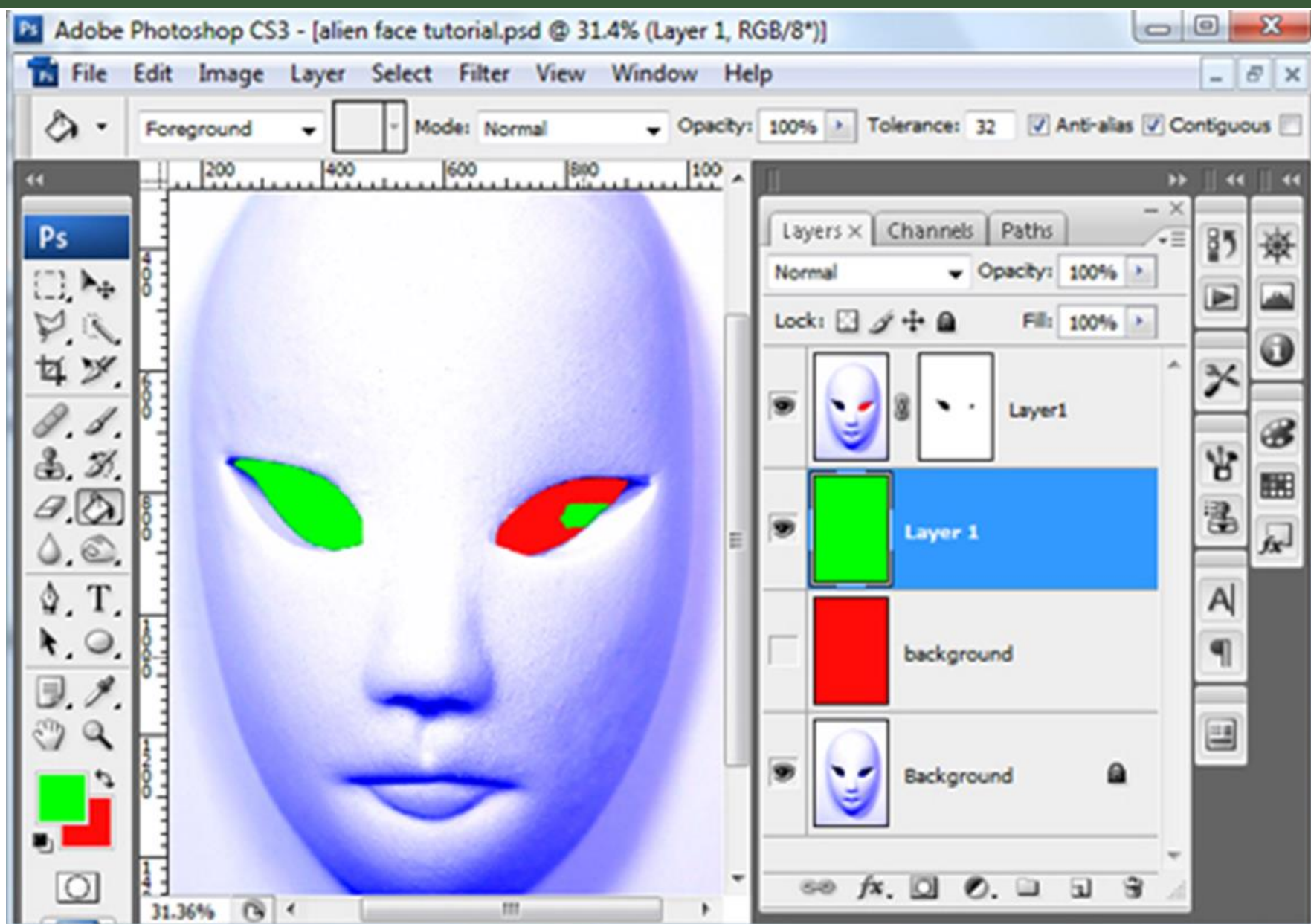


Foreground, Background, Alpha-channel, and Layers

- **Alpha-channel** allow object of higher interests to yield some space for object of lower interests to show.
- The degree of visibility for lower layers is called **transparency**, On the contrary, how solid the higher layer is determined by **opaque** level.

Foreground, Background, Alpha-channel and Layers





Foreground

Color of foreground elements is specified by the property color value.

```
blockquote {
    border: 4px, dashed;
    color: #508C19
}
```





Background

LECTURE 3

Background Color

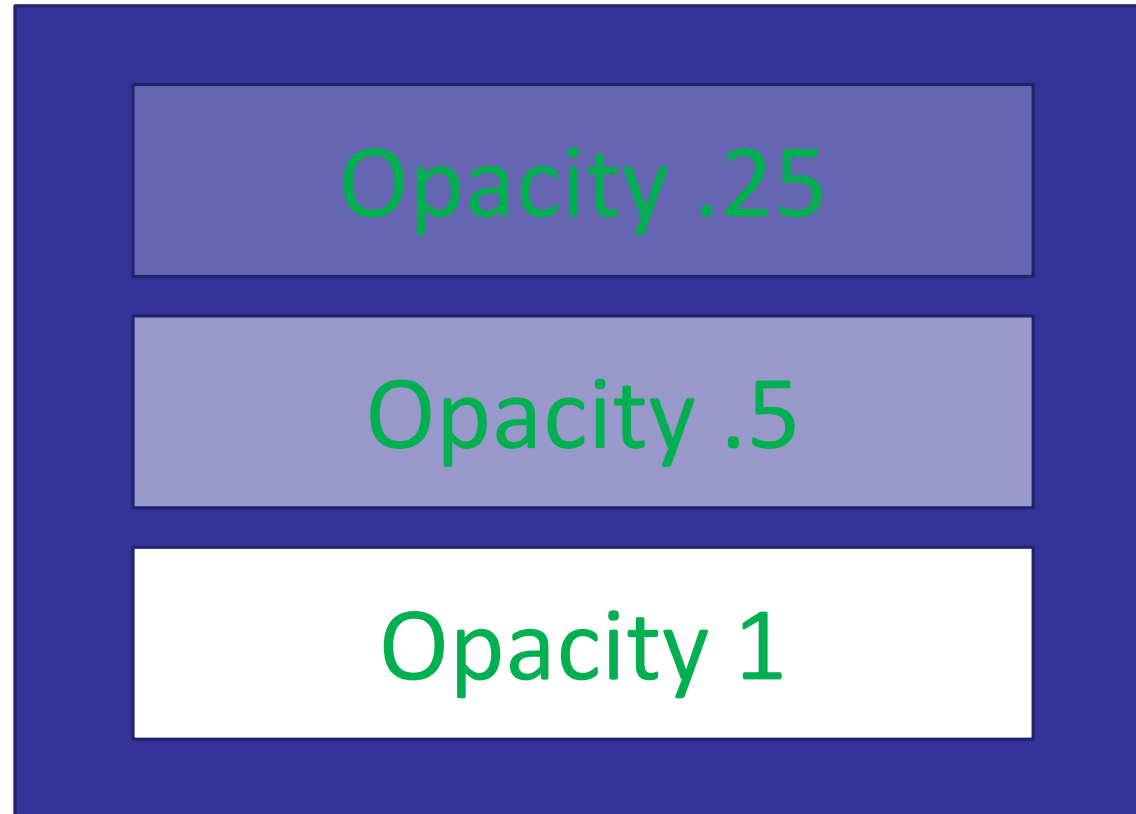
Color of background elements is specified by the property background-color value.

```
blockquote {  
    border: 4px, dashed;  
    color: #508C19  
    background-color: #B4DBE6  
}
```



Playing the Opacity (Assigning Alpha)

```
h1 { color: green; background: white; opacity: 1 }
```





Advanced Selectors

LECTURE 4



More on Selector

Pseudo Class Selector:

link pseudo class selector, action pseudo class selector

Pseudo Element Selector:

first letter selector, first line selector, before, end selector

Attribute Selector:

Element[Attribute] and many others.

Link Pseudo-Classes

`:link` Apply the style setting to unvisited links

`:visited` Apply the style setting to visited links

`a:link` { color: maroon; }

Normal link (a:link)

`a:visited` { color:gray; }

Visited link (a:visited)

Hovered link (a:hover)

← uses `a:hover { text-decoration:none; color:#06C; }` for display

Active link (a:active)

← uses `a:active { border:1px dashed #ccc; }` for display

Focused link (a:focus)

Action Pseudo-classes

:focus Applies when the element is selected and ready for input

:hover Applies when the mouse pointer is over the element

:active applies when the element (such as link or buttons) is in the process of being clicked or tapped



Pseudo Element Selector

Apply the style setting to part of an Element (treat it like an element)

- :first-line** The selector applies a style rule to the first line of the specified elements.
- :first-letter** This applies a style rule to the first letter of the specified element.

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The information presented here is suitable for all programmers from beginner to expert. We hope you find this information useful and return to our site, as we expand our information base.

LOREM IPSUM DOLOR SIT AMET, CONSECTETUER ADIPISCING ELIT. blandit condimentum, enim diam rutrum nunc, vel nonummy lib massa. Nulla suscipit nisi a dui. Mauris volutpat nulla a mi.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin ac enim diam rutrum nunc, vel nonummy libero arcu non enim. Mauris a dui. Mauris volutpat nulla a mi.

LOREM IPSUM DOLOR SIT AMET, CONSECTETUER ADIPISCING ELIT blandit condimentum, enim diam rutrum nunc, vel nonummy suscipit id, massa. Nulla suscipit nisi a dui. Mauris volutpat nulla.

Danish cotton candy cookie candy canes oat c icing danish. Macaroon chocolate bar donut. Sugar p candy canes cotton candy. Cotton candy powder oat candy. Chupa chups wafer bear claw sweet. Chupa c cheesecake applicake dessert tiramisu. Chocolate ca Carrot cake dragee croissant. Candy sugar plum bon powder bear claw toffee cookie carrot cake liquorice

Jelly cake marzipan gummi bears sweet roll fav

Generated Content with :before and :after

CSS2 introduced the :before and :after pseudo-elements that are used to insert content before or after a specified element without actually adding the characters to the source document.

```
p:before { content: "Once upon a time"; }
```

```
p:after { content: " The End. " }
```



This paragraph uses image before content.

This paragraph uses image after content.



This paragraph uses image before and *this content after.*

Attribute Selector

(Read the text for details)

You can target attribute names or their values, which provides a lot of flexibility for selecting elements without needing to add a lot of class or id markup.

`Element[attribute]`

`Element[attribute="Exact Value"]`

`Element[attribute~="Value"]`

`Element[attribute|="Value"]`

`Element[attribute^="first part of the value"]`

`Element[attribute$="last part of the value"]`

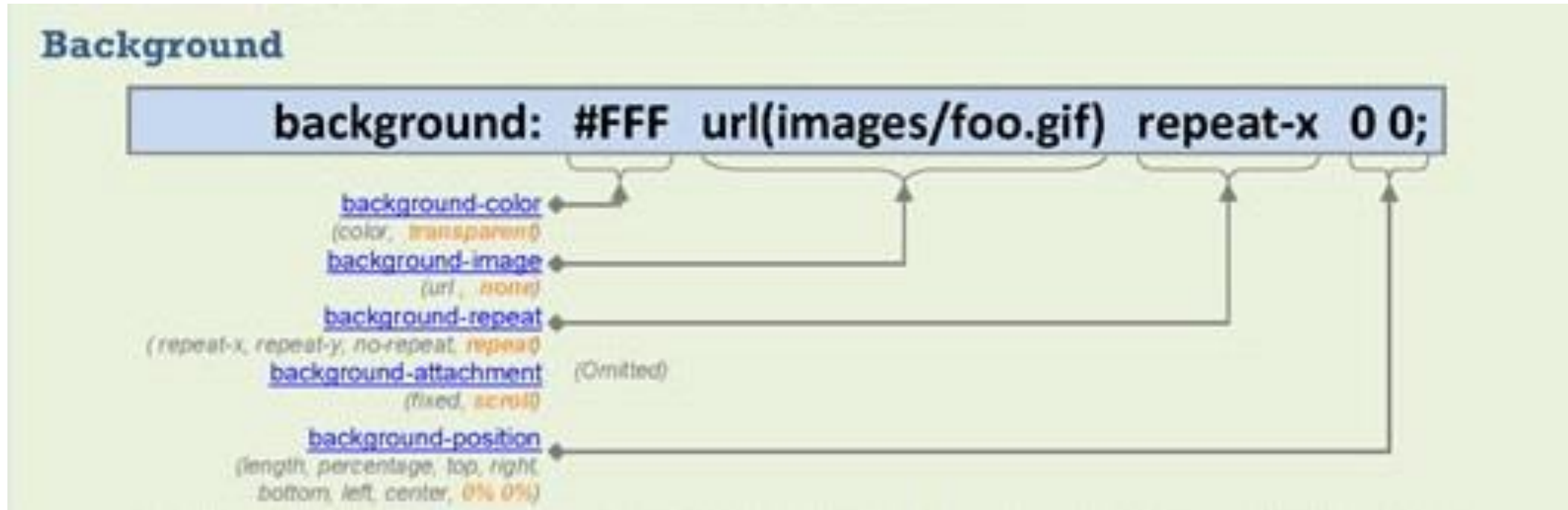
`Element[attribute*="any part of the value"]`



Background Properties

LECTURE 5

CSS: background shorthand





Background Properties

background-color: color setting when there is no image used for background

background-image: image or images used for background purpose

background-repeat: how to repeat the background image

background-attachment: how the background works with foreground when the viewport scrolls

background-position: where should the background image be placed

background-clip: this specify how far the background image should extend.

background-size: this property allows designers to size the background image inside the element.

background-origin: this property determines how the background-position is calculated, or in other words, where to start counting positioning measurements.

background-image

Background-image: url(location of image file) | none | inherit

```
body {  
background-image: url(star.gif);  
}
```



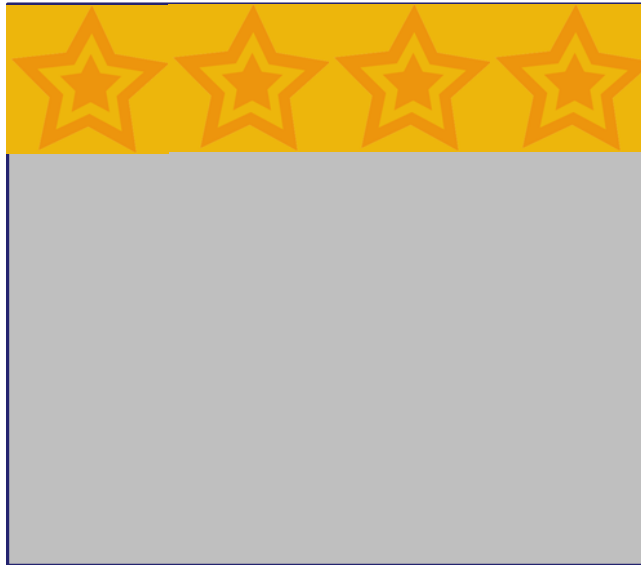
background-repeat

background-repeat: repeat | repeat-x | repeat-y | no-repeat | inherit

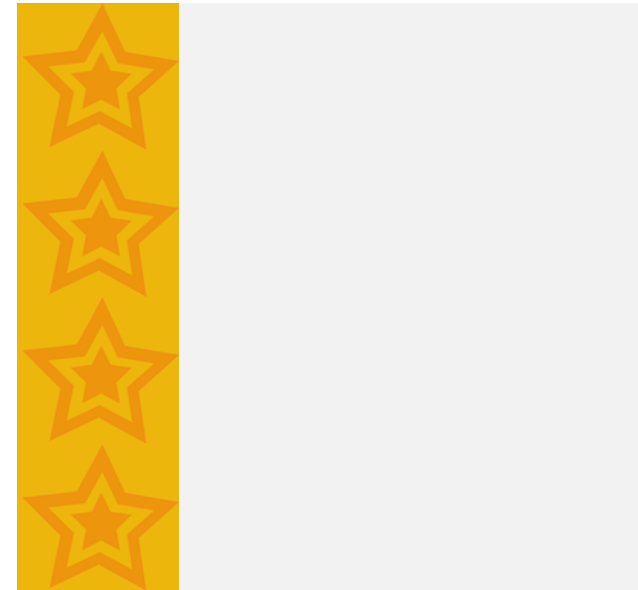
```
body {
  background-image: url(star.gif);
  background-repeat: no-repeat;
}
```



```
body {
  background-image: url(star.gif);
  background-repeat: repeat-x;
}
```



```
body {
  background-image: url(star.gif);
  background-repeat: repeat-y;
}
```



background-position

Background-position: length | percentage | left | center | right | top | bottom | inherit



background-position: left bottom;



background-position: right center;



background-position: 200px 50px;



background-position: 15% 100%;



background style overrides

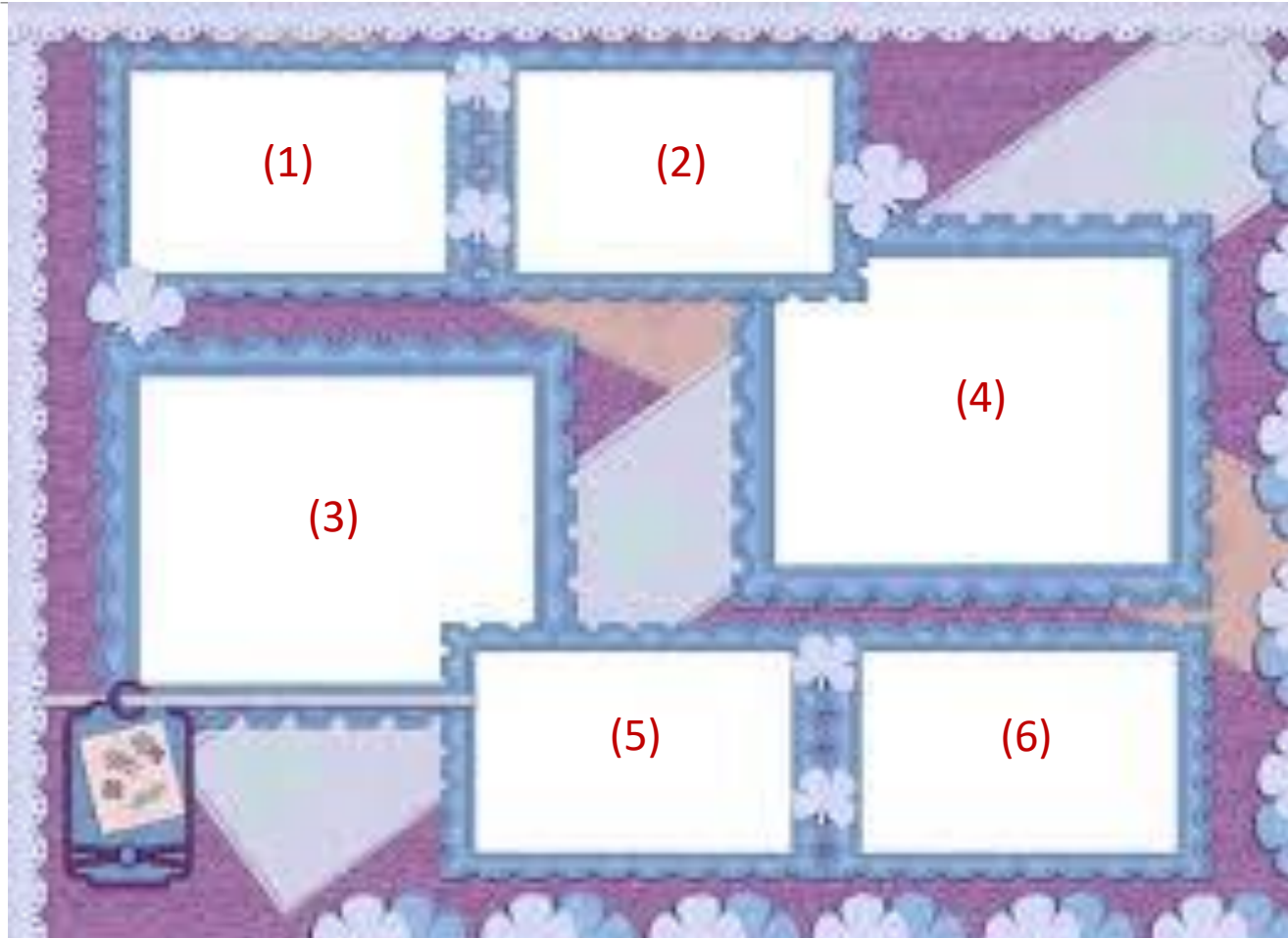
Only specific style setting can override a previously assigned setting.

Example:

```
h1, h2, h3 { background: red url(dots.gif) repeat-x; }
```

```
h3 { background: green; } # This won't override the first style setting, because it is not a  
# specific style setting like background-color: green;
```

Multiple background setting



Virtual Photo Frame:

```
body {
  background-image: url(frame1), url(frame2),
    url(frame3), url(frame4),
    url(frame5), url(frame6);
  background-position: 5% 0%, 40% 0%, 5% 50%,
    55% 40%, 40% 75%, 65% 75%
}
```

Read the text also.



Gradients

LECTURE 6

Gradients



linear-gradient



radial-gradient

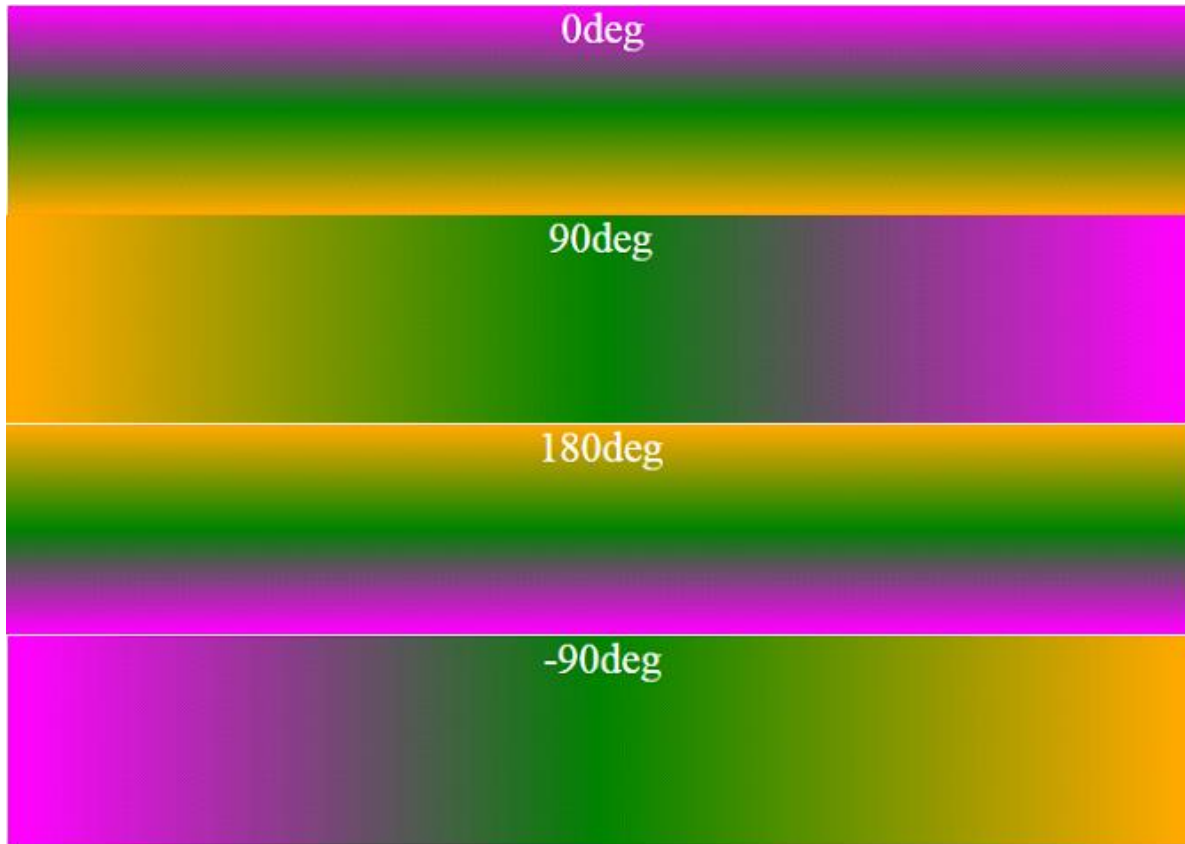
Linear Gradients:

```
background: linear-gradient(angle, color-stop1,  
                             color-stop2);
```

Radial Gradients:

```
background: radial-gradient(shape size at position,  
                             start-color, ..., last-color);
```

Angle Gradients:

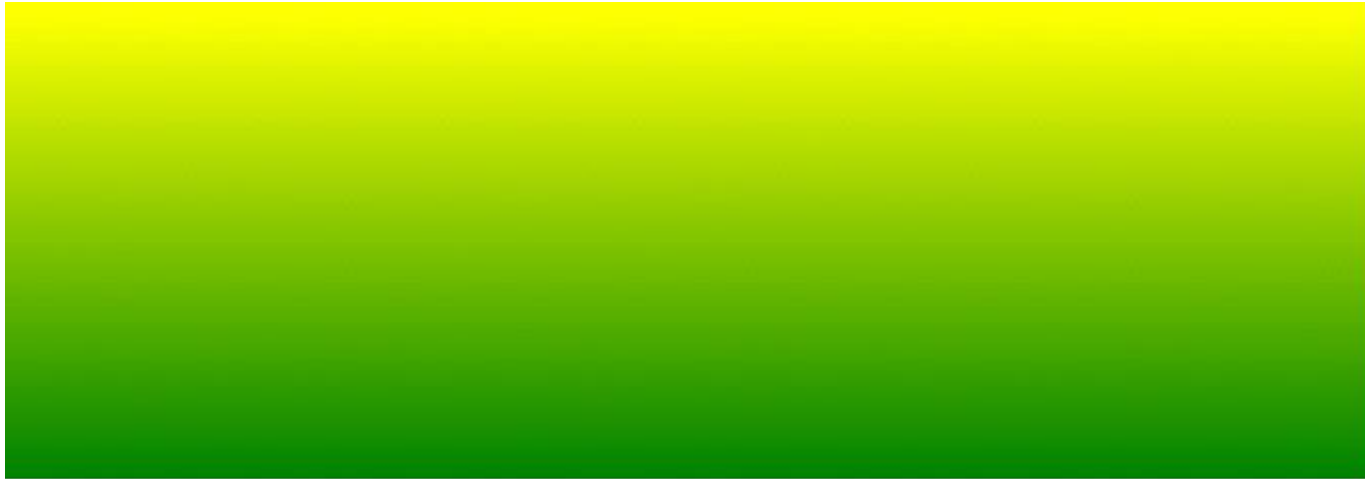


```
#grad_0deg
{
  height: 100px;
  background: linear-gradient(0deg, orange, green, magenta);
}
```

```
#grad_90deg
{
  height: 100px;
  background: linear-gradient(90deg, orange, green, magenta);
}
```

```
#grad_180deg
{
  height: 100px;
  background: linear-gradient(180deg, orange, green, magenta);
}
```

Linear Gradient (Top to Bottom):



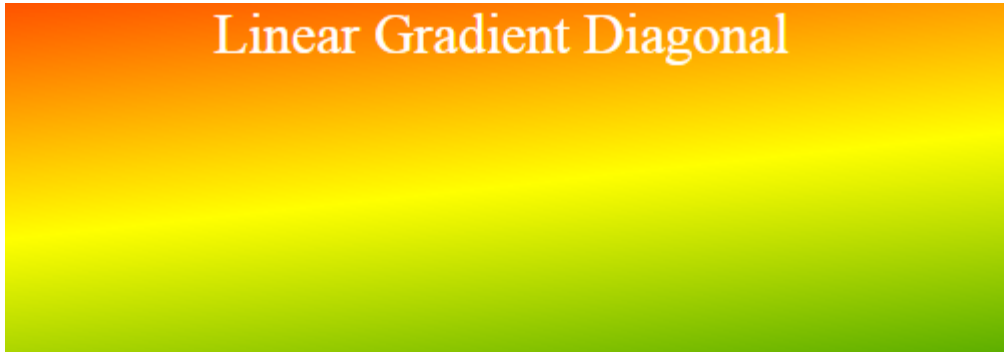
```
#linear_grad
{
height: 100px;
background: linear-gradient(yellow, green);
}
```

Linear Gradient (Left to Right):



```
#linear_grad
{
height: 100px;
background: linear-gradient(to right, yellow, green);
}
```


Linear Gradient (Diagonal):

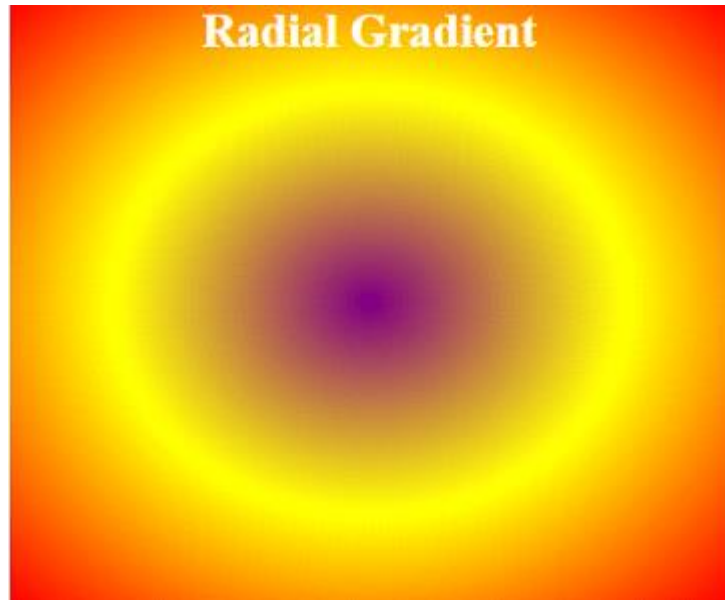


```
#grad_diagonal
{
height: 100px;
background: linear-gradient(to bottom right, red ,yellow,
green);
}
```

Transparency

```
#grad_transparency
{
height: 200px;
background: linear-gradient(to left, rgba(100,50,20,0),
rgba(100,50,20,1));
}
```

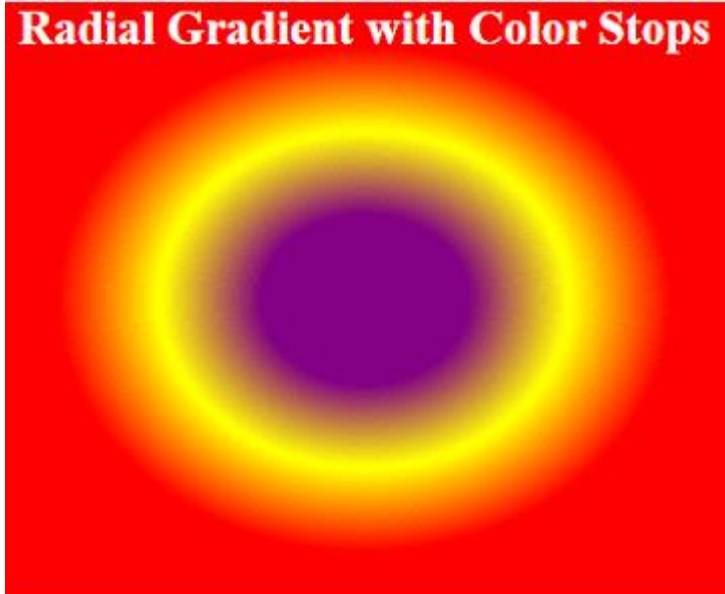
Radial Gradients:



```
#grad_radial
{
height: 150px;
width: 200px;
background: radial-gradient(purple, yellow, red);
}
```

Radial Gradient

(Differently Spaced Color Stops):

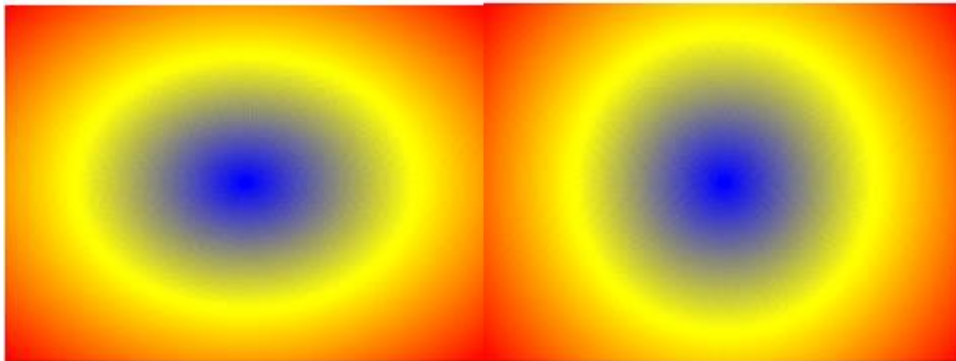


```
#grad_colorstop  
{  
  height: 250px;  
  width: 300px;  
  background: radial-gradient(purple 20%, yellow 40%, red 60%);  
}
```

Set Radial Shapes:

Ellipse (this is default):

Circle:



```
#grad_ellips
{
height: 150px;
width: 200px;
background: radial-gradient(blue, yellow, red);
}
```

```
#grad_circle
{
height: 150px;
width: 200px;
background: radial-gradient(circle, blue, yellow, red);
}
```

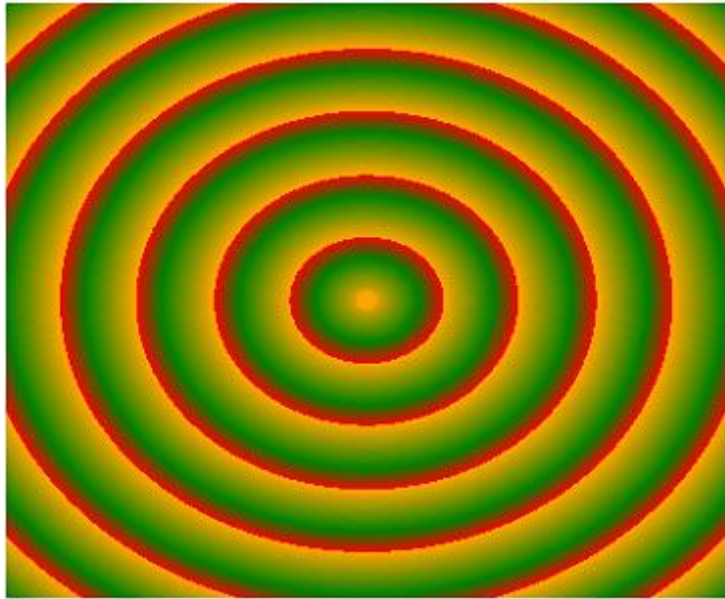
Size Parameter:

The size parameter defines the size of the gradient. The size parameter includes four values:

- [closest-side](#)
- [farthest-side](#)
- [closest-corner](#)
- [farthest-corner](#)

```
#grad1 { height: 150px;
width: 150px;
background: radial-gradient(closest-side at 60% 55%,orange,
yellow,green,yellow, blue); }
#grad2 { height: 150px;
width: 150px;
background: radial-gradient(farthest-side at 60% 55%,orange,
yellow,green,yellow, blue); }
#grad3 { height: 150px;
width: 150px;
background: radial-gradient(closest-corner at 60% 55%,orange,
yellow,green,yellow, blue);}
#grad4 { height: 150px;
width: 150px;
background: radial-gradient(farthest-corner at 60%
55%,orange, yellow,green,yellow, blue);}
```

Repeating a radial-gradient:



```
#grad1
{
  height: 250px;
  width: 300px;
  background: repeating-radial-gradient(orange, green 10%, red
  15%);
}
```

Conclusion for Gradients:

- This part is aimed towards adding background gradients to any HTML element. Just follow the example and demo to add background image to any HTML element.
- This tutorial shows how the background gradient works on different HTML elements. For using background gradients we can create an attractive background by using different colors.



Vendor- dependent Issues

LECTURE 7

Vendor prefixes

Prefix	Organization	Most Popular Browsers
-ms-	Microsoft	Internet Explorer
-moz-	Mozilla Foundation	Firefox, Camino, SeaMonkey
-o-	Opera Software	Opera, Opera Mini, Opera Mobile
-webkit-	Originally Apple; now open source	Safari, Chrome, Android, BlackBerry, WebOS, Many Others
-khtml-	Konqueror	Konqueror



What vendor prefixes are for?

Vendor prefixes are for designers and developers to add newer CSS3 features, to create more function or features for users.

For example,

```
background: -webkit-gradient(linear, left top, left bottom, color-stop(#ffff00), color-stop(#00ff00));
```



Free Gradient Designer

www.colorzilla.com/gradient-editor

Ultimate CSS Gradient Generator

A powerful Photoshop-like CSS gradient editor from ColorZilla.

For Firefox

For Chrome

Gradient Generator

Presets



Name: Blue Gloss Default

save



Stops

Opacity:

Location: %

delete

Color:

Location: %

delete

Adjustments

hue/saturation...

reverse

Preview



Orientation: vertical ↓

Size: 370 x 50

☐ IE

CSS

switch to scss

```
background: #1e5799; /* Old browsers */
background: -moz-linear-gradient(top, #1e5799 0%, #2989d8 50%, #207cca 51%, #7db9e8 100%); /* FF3.6+ */
background: -webkit-gradient(linear, left top, left bottom, color-stop(0%,#1e5799), color-stop(50%,#2989d8), color-stop(51%,#207cca), color-stop(100%,#7db9e8)); /* Chrome,Safari4+ */
background: -webkit-linear-gradient(top, #1e5799 0%,#2989d8 50%,#207cca 51%,#7db9e8 100%); /* Chrome10+,Safari5.1+ */
background: -o-linear-gradient(top, #1e5799 0%,#2989d8 50%,#207cca 51%,#7db9e8 100%); /* Opera 11.10+ */
background: -ms-linear-gradient(top, #1e5799 0%,#2989d8 50%,#207cca 51%,#7db9e8 100%); /* IE10+ */
background: linear-gradient(to bottom, #1e5799 0%,#2989d8 50%,#207cca 51%,#7db9e8 100%); /* W3C */
filter: progid:DXImageTransform.Microsoft.gradient(startColorstr='#1e5799', endColorstr='#7db9e8', GradientType=0); /* IE6-9 */
```

Color format: hex

☒ Comments

☐ IE9 Support (?)

import from image

import from css

Permalink

External Style Sheets

```
/* This is the main CSS that includes other CSS files. */  
@import url(base.css);  
@import url(application.css);  
@import url(layout.css);  
@import url(navigation.css);  
@import url(portlet.css);  
@import url(forms.css);  
@import url(custom.css);
```

```
<html>  
<head>  
<title>My Web Page</title>  
<link rel="stylesheet" type="text/css" href="whatever.css">  
</head>  
<body>  
</body>  
</html>
```

```
h1 {color : green}  
body {background-color : black ; color : purple}
```