



CSS2.1

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Who am I ?



In the past
Siemens as a flash developer
IBM as a flex developer

At present
trainer and consultant



What is CSS ?



The Cascading Style Sheets is a language that's used to write formatting instructions how webpage content should 'look'— in terms of: Layout & style



Why ?

1apple1402mango803grapes78





Why ?

1 Apple 140

2 Mango 80

3 Grapes 78





Why ?

1	Apple	140
2	Mango	80
3	Grapes	78





Why ?

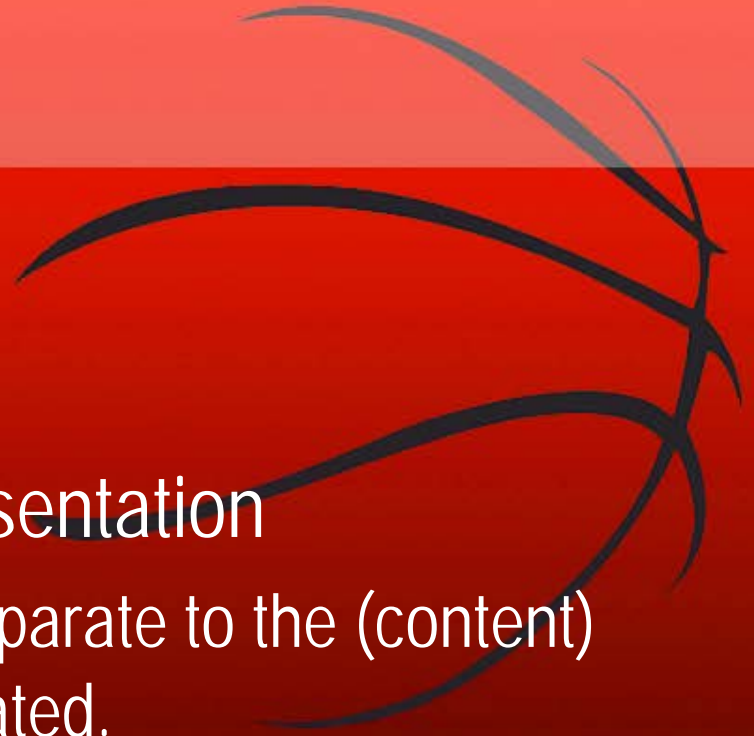
SI No	Product	Price
1	Apple	140
2	Mango	80
3	Grapes	78





The benefits of CSS

- Separation of content and presentation
 - CSS provided in a file that is separate to the (content) HTML. can more easily be updated.





The benefits of CSS

- Smaller webpage file sizes
 - I personally have seen reduction up to 50%





The benefits of CSS

- Improved webpage download speed
 - Since it is small it will download faster
 - Can be cached for re use
 - Save bandwidth
 - Improve rendering speed





The benefits of CSS

- Streamlined maintenance
 - Reduction in errors
 - Easy up gradation





The benefits of CSS

- Different devices different presentations
 - For web
 - For print
 - For mobile etc...





The benefits of CSS



- Table-less layout
 - Tables were meant to display data, and not to make a layout
 - Longer download times, uses more bandwidth
 - Table causes accessibility issues



Where can a CSS be..?

Inline Style

```
<h1 style="font-family: Arial">Welcome!</h1>
```





Where can a CSS be..?

Embedded Style

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

```
h1 {
```

```
font-family: Arial;
```

```
}
```

```
</style>
```

```
<h1>Welcome!</h1>
```





Where can a CSS be..?

Linked Style

```
<link type="text/css" rel="stylesheet" href="style.css" />
```




Where can a CSS be..?

Imported Styles

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

```
@import "style.css"; or @import url ("style.css")
```

```
</style>
```

The import needs to be the first declaration if there is any embedded style declared in the file...



Few vocabulary as we move on ..

- Cascade
 - Multiple sheets and types of sheets can be used.
- Inheritance
 - Style Inheritance relies on the document tree.
- Specificity
 - The style starts applying from generic to specific





Code Anatomy

```
Selector {  
Property: Value ;  
}
```

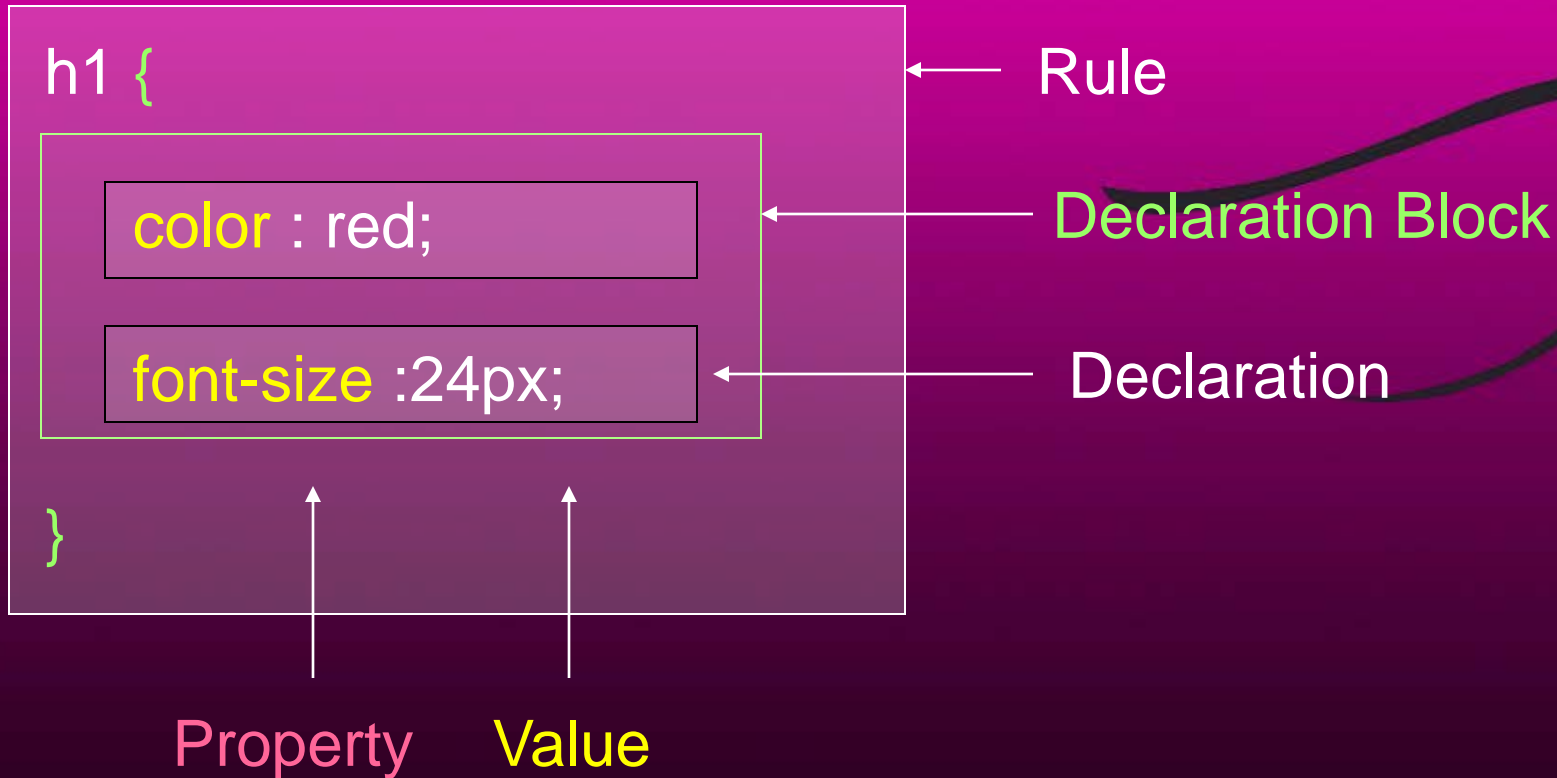
e.g.

```
p {  
color: #ff0000;  
}
```





Terminology





Selectors



Element Selectors	Dynamic Pseudo Class Selectors
Class Selectors	Lang Pseudo Class Selectors
ID Selectors	Child Selectors
Descendant Selectors	Adjacent Sibling Selector
Pseudo Class Selectors	General Sibling Selector
Pseudo Element Selectors	Attribute Selectors
Selector Groups	Universal Selector



Element Selectors

```
body {
```

```
}
```

```
h1 {
```

```
}
```

```
p {
```

```
}
```

```
ul {
```

```
}
```





Class Selector

```
.small {  
}
```

```
<p class="small">Welcome to your life there's no  
turning back </p>
```





ID Selector

```
#selection{  
}
```

```
<div id="selection ">
```

This is a division on my page

```
</div>
```

Must be unique in the document





Descendant Selectors



```
p em {  
}
```

```
<p> this is my  
<em>paragraph </em>  
</p>
```



Pseudo class selectors

```
a:link {  
}
```

```
a:hover {  
}
```

You can also make a combination of class and pseudo selection if an anchor tag has a class main then for the link property....

```
a.main:link
```





Pseudo element selector

:first-line - Applies style to the first line in a given element

:first-letter- Applies style to the first line in a given element

:before- Applies style before a given element

:after- Applies style after a given element

```
h1:after { content: "header note" }
```

```
p:after {content: url(paramark.gif);}
```



Selector Groups

```
h1, h2, h3 {  
  font-family: Arial;  
}
```





Dynamic Pseudo Class Selectors

:focus -Applies the style when focused

:active –Applies style when element is clicked

:hover -Applies the style only when the mouse
hovers over the selected element



Language Pseudo Class Selectors

```
p:lang(es) {  
}
```

```
<p lang="es"> some Spanish text </p>
```

Note: The support for this feature is currently limited



Child Selectors

```
div:first-child{  
}
```

```
<body>
```

```
  <div> Hello every one
```

```
    <em>Good Afternoon</em>
```

```
  </ div >
```

```
</ body >
```





First Child Selectors

```
p:first-child{  
}
```



Any rule you write for this selector will be applied to the first paragraph child of every tag.

Note: The support for this feature is currently limited



Adjacent Sibling Selectors

```
th+td {  
}
```

As a table can contain both th and td in the same level they are siblings within the same table tag...





General Sibling Selectors

```
ul~p {  
}
```

Any p that comes after the ul as a sibling





Attribute Selectors



```
input[type="submit" ] {  
}
```

```
<input type="submit" />
```

Other flavors available

[att] = Apply the style to a given attribute, no matter the value

[att=val] = Apply the style to a given attribute with a specific value

[att~=val] = Apply style to any attributes with space-separated specified values

- e.g. (class="val" and class="important val" and class="val high",
- but not class="my-val" or class="value")
- as they don't match val (should not have any alphabets before or after it)



Universal Selector

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





Advanced Selectors

Child and adjacent sibling selectors





Child and adjacent sibling selectors

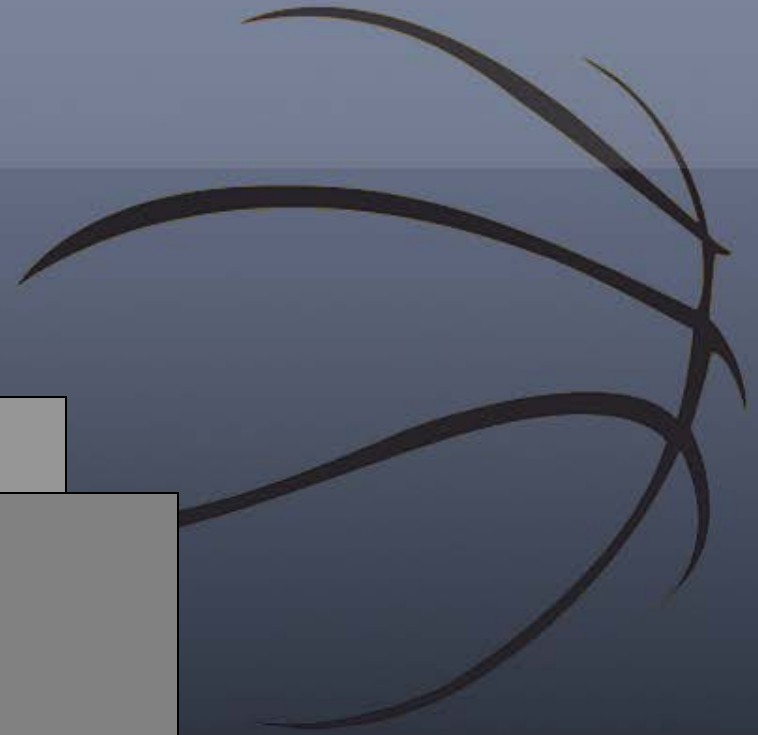
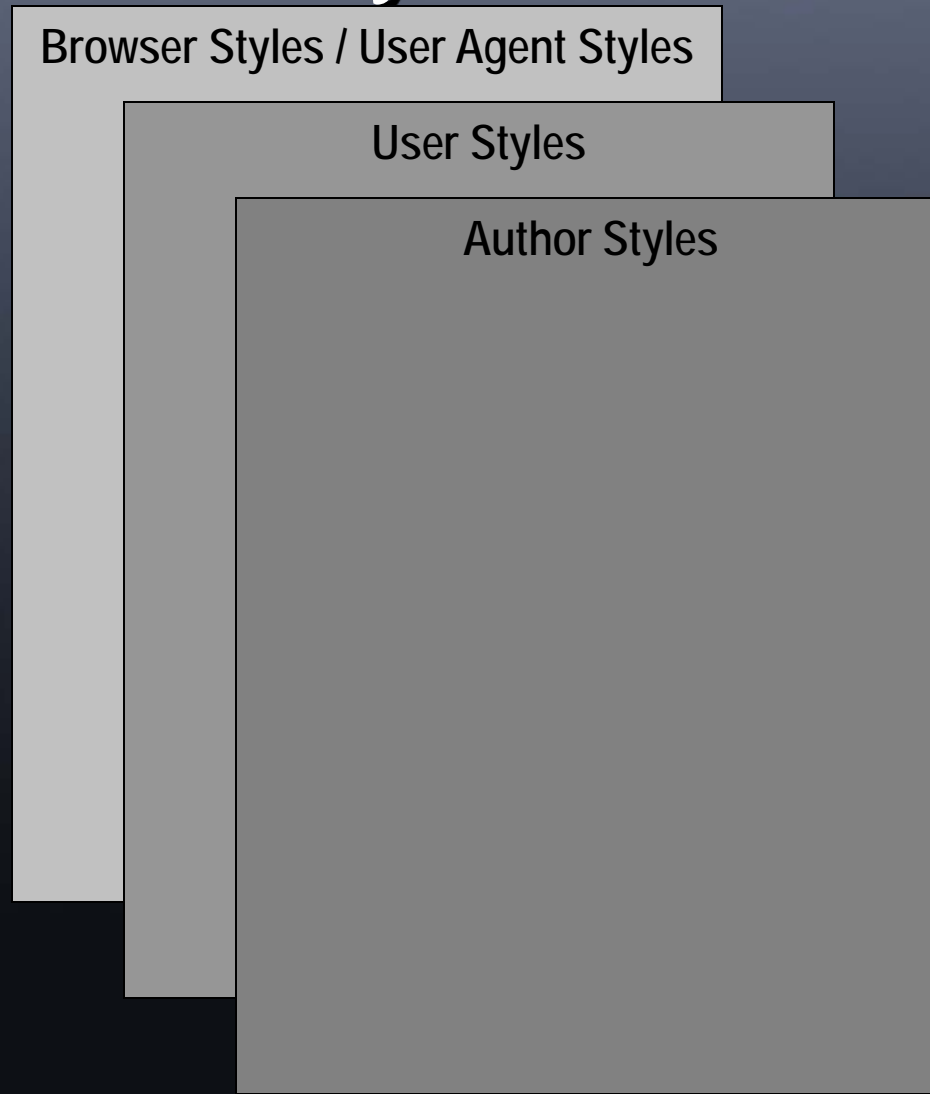
- `#nav > li {font-weight: bold;}`

```
<ul id="nav">  
<li>Home</li>  
<li>Services  
<ul>  
<li>Design</li>  
<li>Development</li>  
<li>Consultancy</li>  
</ul>  
</li>  
<li>Contact Us </li>  
</ul>
```





Sources of Style





Specificity

- Style=""
- #id #id {}
- #id .class {}
- tag #id {}
- #id {}
- tag.class .class {}
- tag.class {}
- tag tag {}
- tag {}

1,0,0,0	1000
0,2,0,0	200
0,1,1,0	110
0,1,0,1	101
0,1,0,0	100
0,0,2,1	21
0,0,1,1	11
0,0,0,2	2
0,0,0,1	1





Specificity

In the order of importance

- User styles flagged as !important
- Author styles flagged as !important
- Author styles
- User styles
- Styles applied by the browser/user agent





DIV tag <div>

A Block level element

Used to create a block with nested elements

Idea is to group the nested elements and to be able to refer with a name or an id





Span tag ``

Just like `div` `span` creates an inline element
That can be addressed to





color property

color:red

color:#rrggbb

color:rgb(rrr,ggg,bbb)

color:rgb(rrr%,ggg%,bbb%)

color:inherit

color:#f00

color keyword

color in hex notation

values from 0-255

values in percentage

color of the parent tag

will also be treated as hex





border property

border-width: thin

border-width: medium

border-width: thick

Note : thin, thick, medium sizes are provided by browser

border-width: 5px

border-width: 1em

border-top-width: 1px

border-bottom-width: 1px

border-right-width: 1px

border-left-width: 1px





border-color property

Same as color property

border-style property

border-style: none

border-style: double

border-style: hidden

border-style: dashed

border-style: dotted

border-style: ridge

border-style: solid

border-style: groove

border-style: inset

border-style: outset





border-color property

none

solid

double

groove : A three-dimensional effect that gives the impression that the border is carved into the canvas.

hidden : same as none but works when applied to tables

inset

dashed

outset

dotted

Ridge : a 3D effect that has the opposite effect of groove





Border properties shorthand

`border: <width> <style> <color>`

Eg; `border:thick groove #F00;`





margins

margin-top

margin-right

margin-bottom

margin-left

Shorthand

margin:<top> <right> <bottom> <left>

margins can also accept negatives





padding

padding-top

padding-right

padding-bottom

padding-left

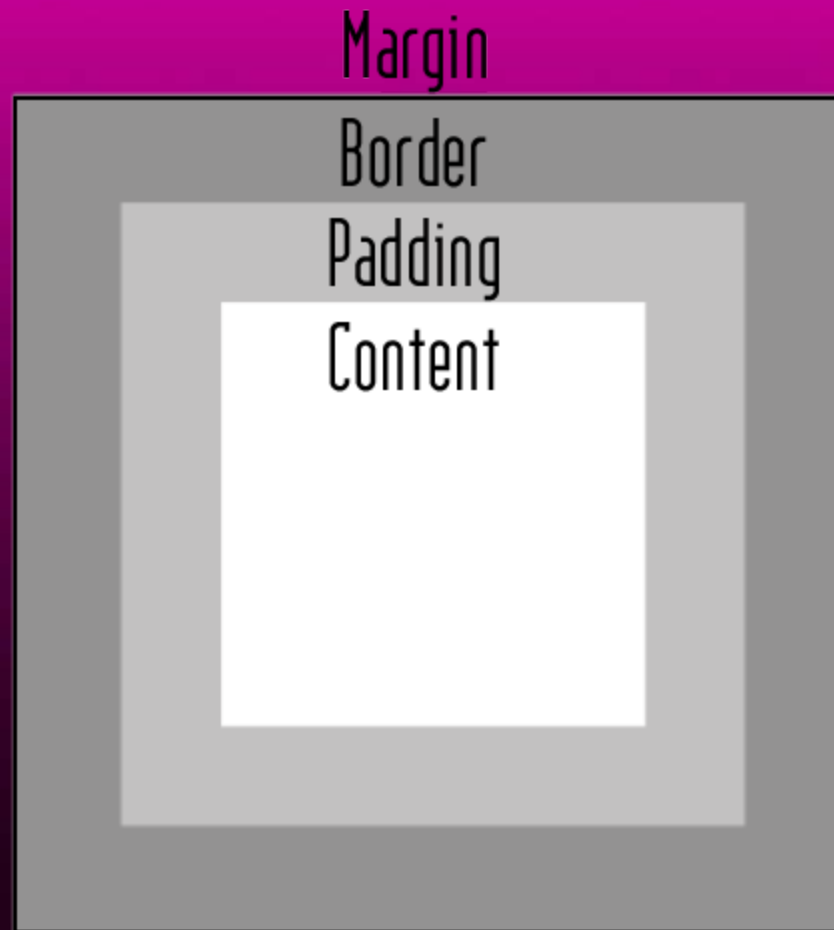
Shorthand

padding:<top> <right> <bottom> <left>





The Box Model





position

position: static

position: relative

position: absolute

position: fixed

position: inherit

the default place

takes a position relative to the container

takes user defined position from a relative parent

takes a position irrespective of container

takes position property from parent





Float

Arranges the element

float: left

float: right

float: none

float: inherit





Clear

Clears the block contents

clear: none

clear: left

clear: right

clear: both

clear: inherit





Background

background:url()

background:#rrggbb





Background image

background-image:url("")

background-image:none

background-image:inherit





Background repetition

background-repeat:repeat

background-repeat:repeat-x

background-repeat:repeat-y

background-repeat:no-repeat

background-repeat:inherit





Background Attachment

background-attachment:scroll
background-attachment:fixed
background-attachment:inherit





Background Position

background-position:<x> <y>

background-position:top

background-position:bottom

background-position:left

background-position:center

background-position:right





Font Families





Font Styles





Font Weight





Font Size

font-size:12pt

font-size:12pt

font-size:medium

font-size:small

font-size:normal

font-size:larger

font-size:50%





Text indenting

text-indent: <length>

text-indent: <percentage> by containing block





Aligning Text

text-align:left

text-align:right

text-align:center

text-align:justify





Text Decoration

- `text-decoration:none`
- `text-decoration:underline`
- `text-decoration:overline`
- `text-decoration:line-through`
- `text-decoration:sub`
- `text-decoration:super`
- `text-decoration:blink`





Types of media

```
<link rel="stylesheet" type="text/css" href="print.css" media="print" />  
<link rel="stylesheet" type="text/css" href="screen.css" media="screen" />  
<link rel="stylesheet" type="text/css" href="projection.css" media="projection" />
```

all : Users for all devices

aural : Used for speech and sound synthesizers

braille : Used for Braille tactile feedback devices

embossed : Used for Braille printers

handheld : Used for handheld or small devices like PDAs and smartphones

print : Used for printers and print preview

projection : Used for projected presentations

screen : Used for color monitors

tty : Used for teletypes, terminals, and portable devices with limited characters

tv : Used for television and WebTV





Display common properties

- Block elements, such as paragraphs, headings, and lists, sit one above another when displayed in the browser.
- Inline elements such as a, span, and img, sit side by side when they are displayed in the browser and only appear on a new line if there is insufficient room on the previous one.