

HTML - CSS

Understanding the basics

Goals



- ✓ To understand HTML and basic tag functionalities
- ✓ To know the basics of styling and uses of CSS
- ✓ To understand structure of a Web Page (DOM)
- ✓ A discussion over BootStrap Library
- ✓ Live Demos

HTML

HTML : What ?



HTML is Hyper Text Markup Language

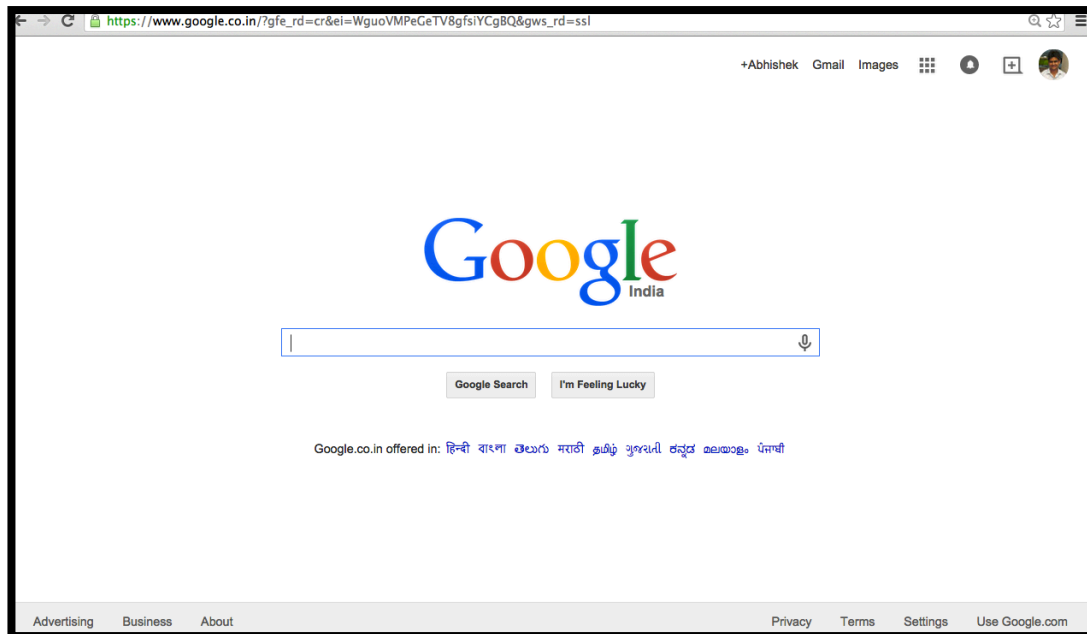
- It's a markup understood by browsers
- It's not a programming language
- It creates DOM which is the web page

HTML Structure



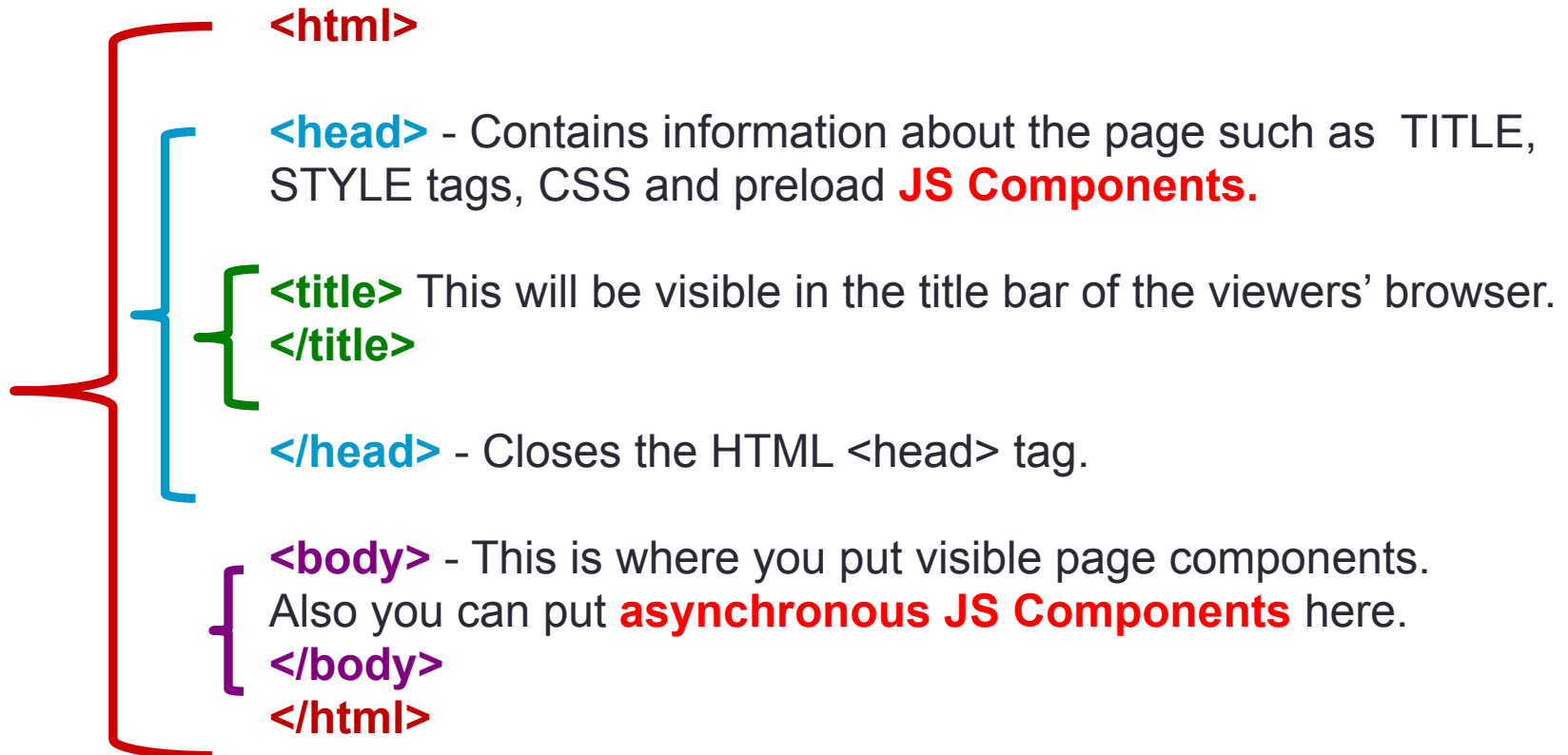
HTML has two main sections :

- **HEAD** : contains meta data used by browser
- **BODY** : main viewable part of web page

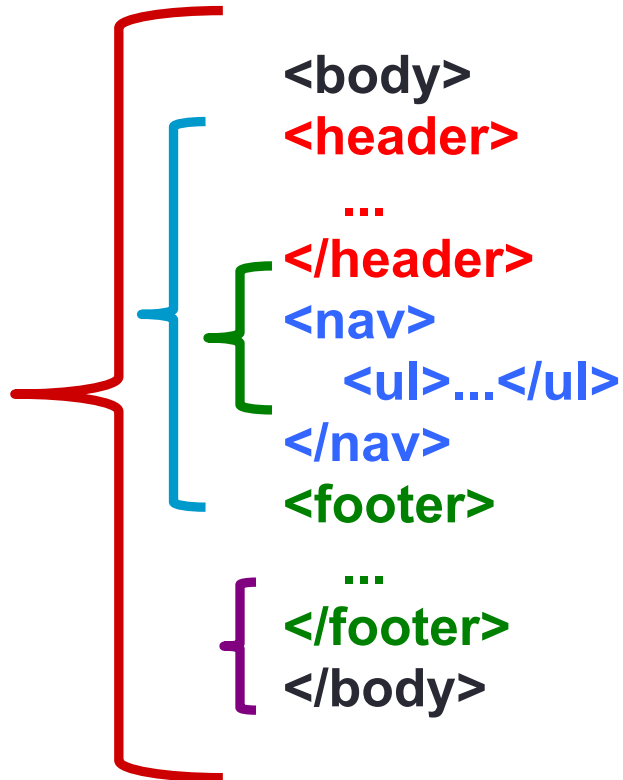


BODY

Page Structure



Semantic Structure(HTML5)



Most Used HTML Tags



Covers more than 90% of HTML use

TAGS	Purpose
<h1>,<h2>...<h6>	Any Heading/Title
<p>	Any text
 	For Line breaks
	Images
<a>	<u>Links</u>
 and 	List and Items
	Bold
	italics
<div> and 	containers for styling/positioning

HTML Attributes

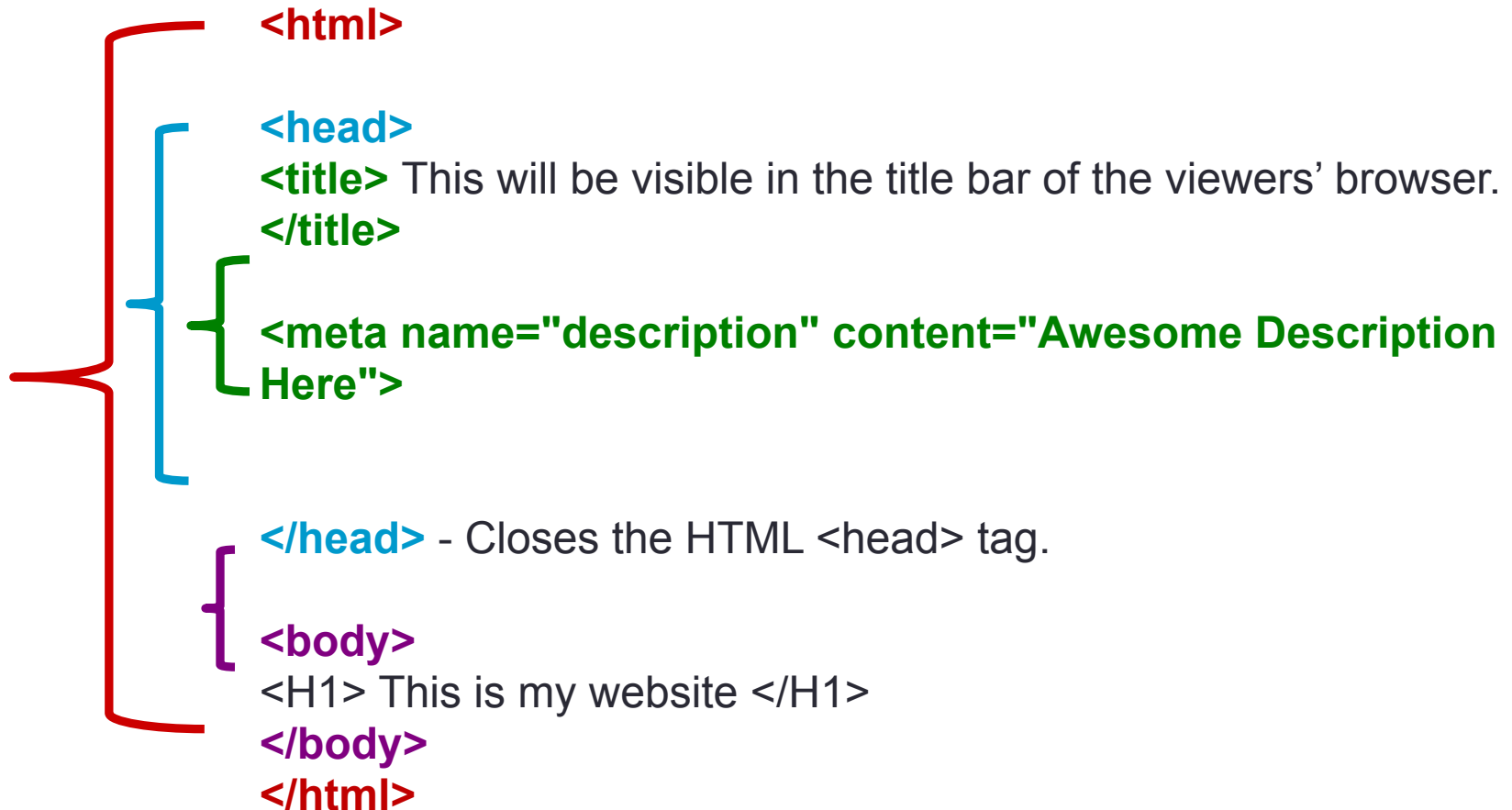


Attributes are specific to the tag it is associated with

Commonly used Attributes are given here

Attributes	Used with Tags	Purpose
href	<a>	to set Link target
src		to set image source
id	<div>,<p> ..	to give unique element Id
class	<div>,<p> ..	to link styles
style	<div>,<p> ..	to add style properties
alt		alternate text

SEO Tags



Web Page Elements



A DOM tree is constructed from HTML Elements.

Each HTML Element has 3 parts :

- **Tag** : to specify the category of element
- **Attributes** : to set property of the element
- **Data** : to add some data (optional)

```
<div id="container">Text</div>
```

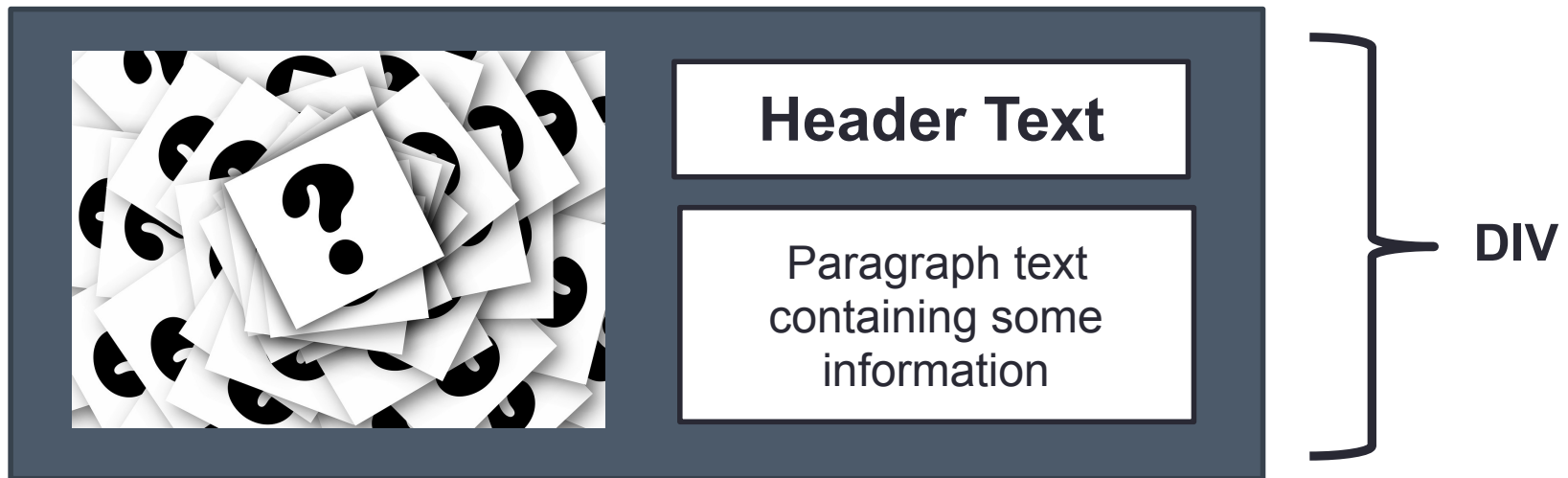
CSS

HTML <DIV>



<div> is most important tag for HTML styling as it :

- acts as a container for grouping elements.
- can be used for position containing elements.
- can be used for margining and bordering



DIV properties



DIV elements have few common properties

- by default they start from next line
- DIVs can be nested into other DIVs
- DIVs is generally identified with **ID** or **CLASS** attribute

```
<div id="div1"> </div>
```

```
<div class="blue"> </div>
```

```
<div id="div2"> </div>
```

```
<div class="blue"> </div>
```



ID vs Class



ID and Class are mostly used to select a particular element

- ID is unique and single
 - ID can be given to only one element per HTML
 - One HTML element can have only one ID
- CLASS is reusable and many can be used together
 - Class can be given to any number of elements
 - Multiple class can be used in Single HTML Element

```
<div class="blue bold"> </div>
```

```
<div id="div2"> </div>
```

```
<div class="blue"> </div>
```

class=blue bold

div2

class=blue

Style : What is it ?



Style is a collection of visual properties of HTML element

- e.g. **StyleBold** = { Font is **bold**, background color is **blue**}

```
.Style-Bold { font-weight: bold;  
background:blue;}
```

style.css

```
<div class="Style-Bold">Style  
Bold </div>
```

Style Bold

CSS : What ?



CSS is Cascading Style Sheets

- It is a collection of styles or CSS Elements
- It separates all styling/positioning tasks from HTML.
- It helps in reusing styles over multiple pages.
- It helps in reducing the size of HTML files.

```
.Style-Bold { font-weight: bold;  
background:blue;}
```

```
.Style-Orange { background : orange;}
```



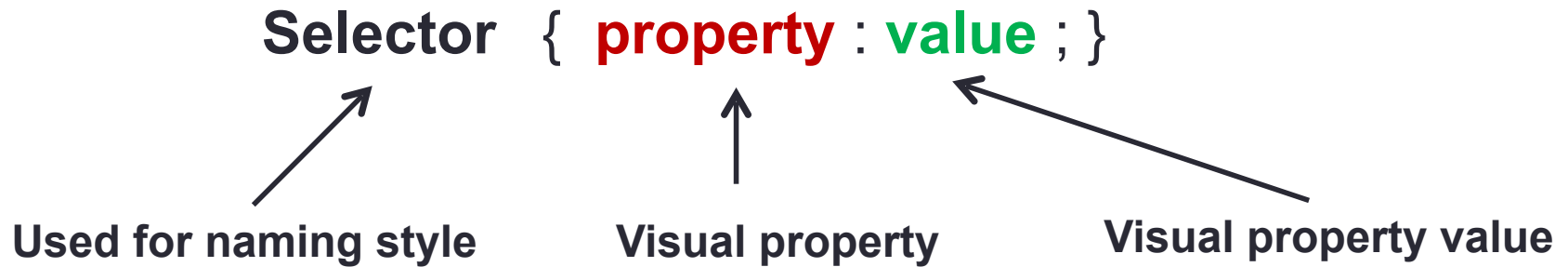
CSS Element

CSS file

CSS Elements



CSS Element is a single style object



```
.style-one {color:red;} 
```

CSS Selector



There are 3 kinds of selectors :

- Applied using in-built HTML tag name (p,div)
- Applied using CLASS (.style-bold,.style-orange)
- Applied using ID (#style-bold)

```
p {color:red;}

.style-1{font-
weight:bold;}

#login{background:blue;}
```

CSS file

```
<p> text is red </p>

<p class="style-1"> text is
    bold</p>

<div id="login">username</div>
```

HTML file

CSS Inclusion



CSS can be declared in few different ways

1. In separate **.css** file included in HTML using **<link>** Tag

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

1. In same HTML Head **<style>** Tag

```
<style>
.style1{ color:red;
        }
</style>
```

Attaching a style



CSS included by external file or internal `<style>` tag is used from **class** attributes

```
<style>
.style1{ color:red;
}
</style>
```

```
<div class="style1"></div>
```

We can also attach style using **style** attribute, this is called **inline-css**

```
<div style="color:red;"></div>
```

CSS properties



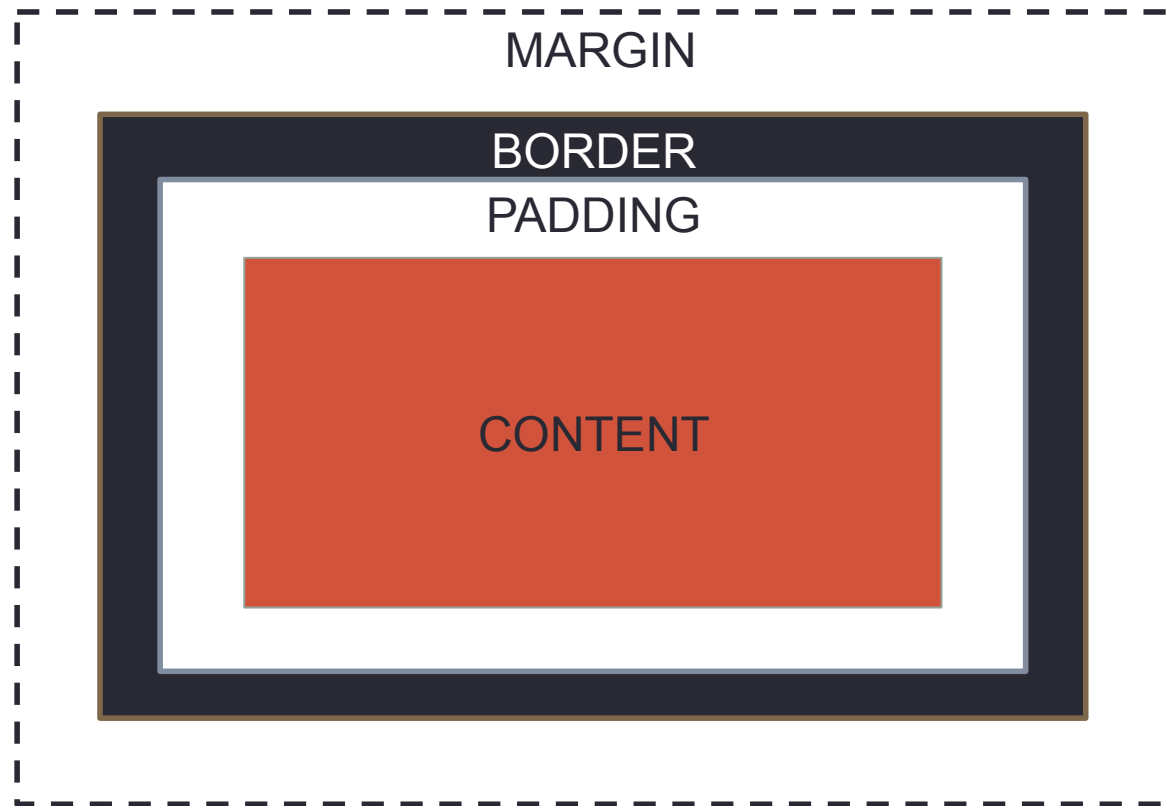
Common CSS properties and their purpose

CSS properties	Purpose
color	change font color
font	change font properties
border	change border properties
background	change element background
margin	<u>Links</u>
padding	List and Items
width	width of elements
height	height of elements

CSS Box Model



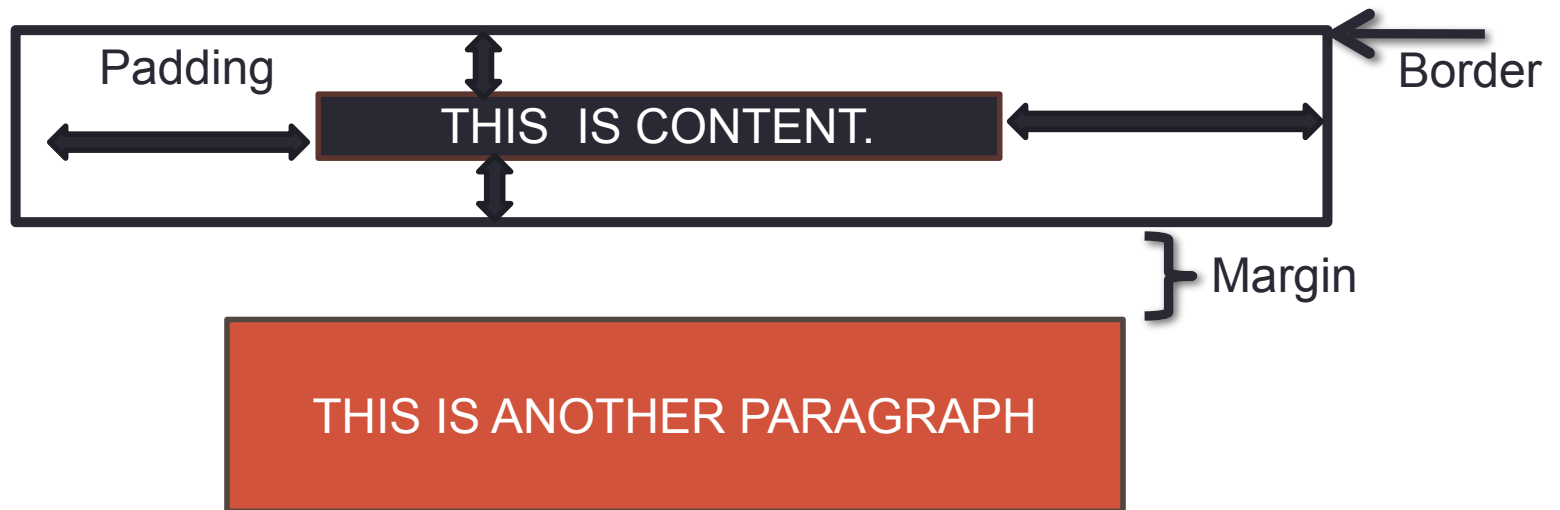
CSS box model is followed by most HTML elements



CSS Box Model



CSS box model is followed by most HTML elements



CSS Shorthand properties



CSS have a shorthand form for related properties

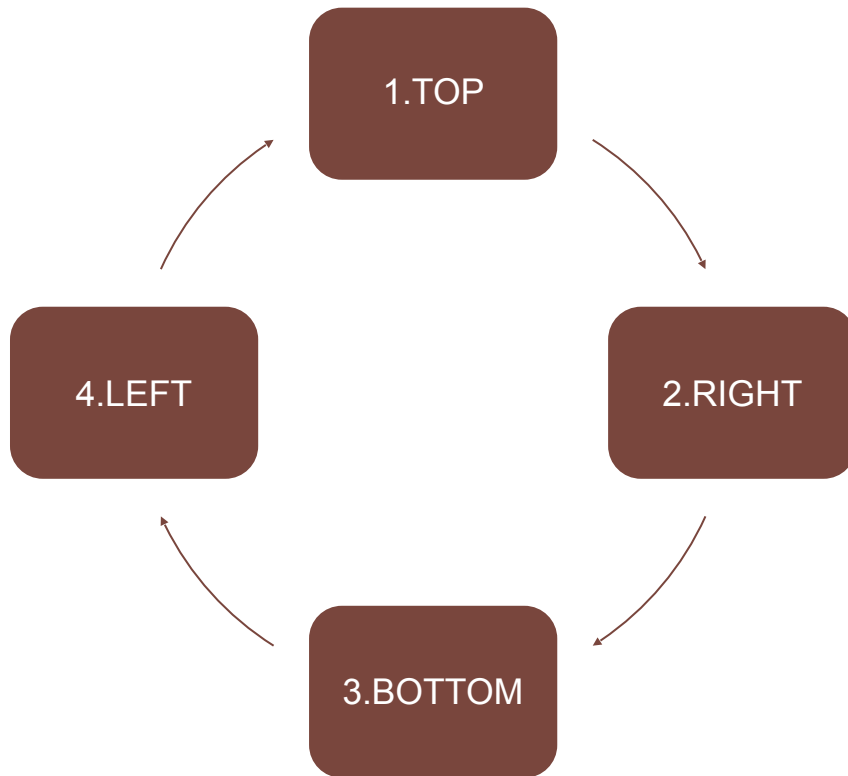
```
background-color: #000;  
background-image: url(images/bg.gif);  
background-repeat: no-repeat;  
background-position: top right;
```

```
background: #000 url(images/bg.gif) no-repeat top  
           right;
```

CSS Directional rule



CSS has a direction rule for making shorthand code



```
margin-top: 2px;  
margin-right: 4px;  
margin-bottom: 6px;  
margin-left: 8px;
```

```
margin: 2px 4px 6px 8px;
```

CSS3 has some interesting properties which one can use

CSS3 properties	Purpose
transform	X Y Z axis transformation
transition	one page to another transition
animation	animating HTML objects
gradient	Gradient in backgrounds

URL and Locations

URL



A Uniform Resource Locator provides location of resource

Protocol + Site Address + File location

<http://www.google.com/mail/index.html>

Absolute vs Relative URL



/images/pic.jpeg

<http://www.google.com/mail/index.html>

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**Thank
You**