REVATURE

Introduction To HTML

World Wide Web

https://developer.mozilla.org/en-US/docs/Glossary/World_Wide_Web

World Wide Web Consortium (W3C)

The World Wide Web Consortium is the main international standards organization for the World Wide Web. Founded in 1994 and currently led by Tim Berners-Lee, the consortium is made up of member organizations that maintain full-time staff working together in the development of standards for the World Wide Web

https://www.w3.org/Consortium/Member/List
https://www.w3.org/standards/
https://dev.w3.org/html5/html-author/

XHTML

https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/XHTML

World Wide Web Consortium (W3C)

Some change in HTML Standard Release

Today, http://w3.org/TR/html5/ redirects to https://html.spec.whatwg.org/multipage/
https://www.w3.org/html/
https://html.spec.whatwg.org/multipage/ is the current HTML standard. It obsoletes all other previously-published HTML specifications.

As announced at https://www.w3.org/blog/2019/05/w3c-and-whatwg-to-work-together-to-advance-the-open-web-platform/, the W3C and the WHATWG signed an agreement to collaborate on the development of a single version of the HTML and DOM specifications:

- https://html.spec.whatwg.org/multipage/ is the single version of HTML being actively developed
- https://dom.spec.whatwg.org/ is the single version of the DOM specification being actively developed.

For further details about the W3C-WHATWG agreement, see the Memorandum of Understanding Between W3C and WHATWG.

What is the WHATWG?

The Web Hypertext Application Technology Working Group (WHATWG) is a community of people interested in evolving the web through standards and tests.

The WHATWG was founded by individuals of Apple, the Mozilla Foundation, and Opera Software in 2004, after a W3C workshop. Apple, Mozilla and Opera were becoming increasingly concerned about the W3C's direction with XHTML, lack of interest in HTML, and apparent disregard for the needs of real-world web developers. So, in response, these organisations set out with a mission to address these concerns and the Web Hypertext Application Technology Working Group was born.

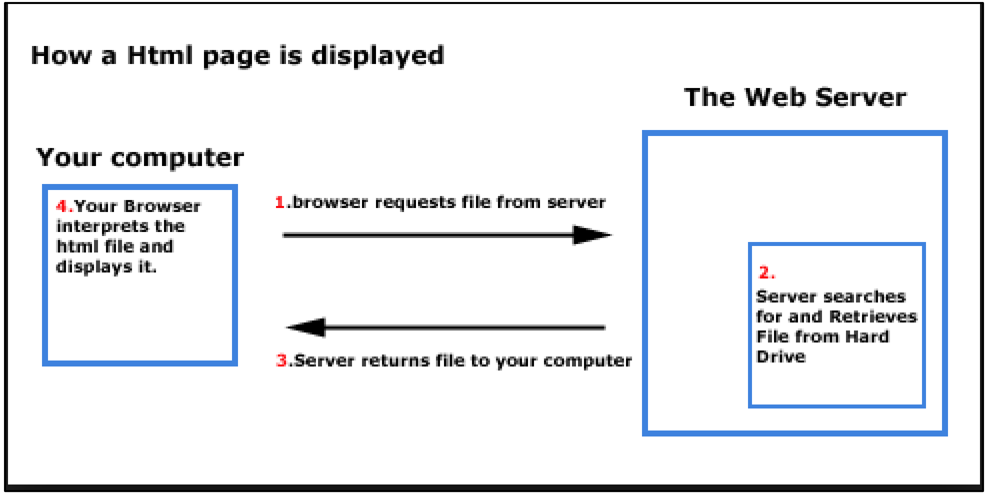
https://whatwg.org/faq

Html Standards:

https://html.spec.whatwg.org/multipage/#toc-introduction

https://www.w3.org/Consortium/Member/List

How HTML works



How a Html page is displayed

4.Your Browser interprets the html file and displays it.

1.browser requests file from server

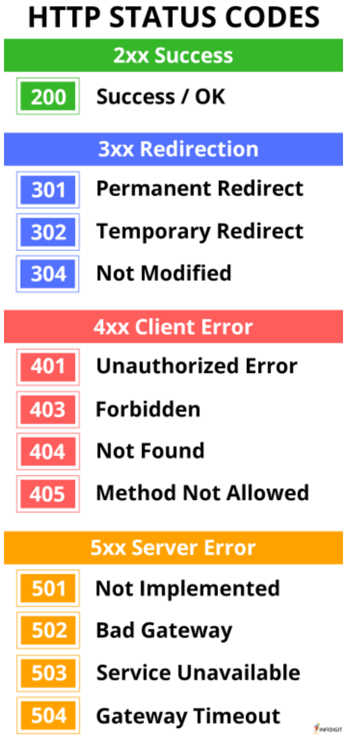
2. Server searches for and Retrieves File from Hard Drive

3.Server returns file to your computer

MIME (Multipurpose Internet Mail Extensions or MIME) type

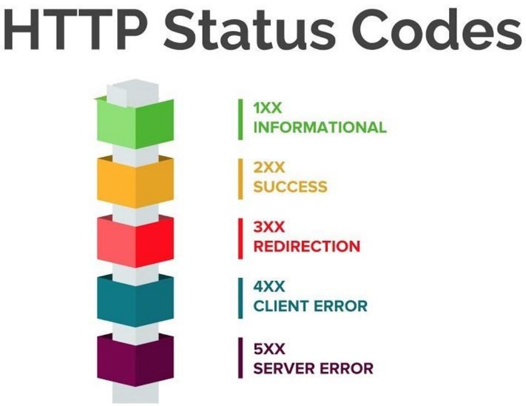
https://developer.mozilla.org/en-US/docs/Web/HTTP/Basics_of_HTTP/MIME_types
https://developer.mozilla.org/en-US/docs/Glossary/MIME_type
https://www.iana.org/assignments/media-types/media-types.xhtml

HTTP Status code in Http Response



HTTP STATUS CODES

2xx Success	
200	Success / OK
3xx Redirection	
301	Permanent Redirect
302	Temporary Redirect
304	Not Modified
4xx Client Error	
401	Unauthorized Error
403	Forbidden
404	Not Found
405	Method Not Allowed
5xx Server Error	
501	Not Implemented
502	Bad Gateway
503	Service Unavailable
504	Gateway Timeout



What is the Unicode?

https://www.unicode.org/standard/WhatIsUnicode.html
https://www.unicode.org/reports/tr51/index.html#Emoji_Properties_and_Data_Files
https://www.unicode.org/versions/Unicode14.0.0/
https://www.unicode.org/versions/Unicode14.0.0/UnicodeStandard-14.0.pdf
https://home.unicode.org/emoji/emoji-frequency/

Html introduction

“Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the Web. By uploading content to the Internet and linking it to pages created by other people, you become an active participant in the World Wide Web.

HTML uses **"markup"** to annotate text, images, and other content for display in a Web browser. HTML markup includes special "elements" such as <head>, <title>, <body>, <header>, <footer>, <article>, <section>, <p>, <div>, <span>, <img>, <aside>, <audio>, <canvas>, <datalist>, <details>, <embed>, <nav>, <output>, <progress>, <video>, <ul>, <ol>, <li> and many others.

An HTML element is set off from other text in a document by "tags", which consist of the element name surrounded by "<" and ">". The name of an element inside a tag is case insensitive. That is, it can be written in uppercase, lowercase, or a mixture. For example, the <title> tag can be written as <Title>, <TITLE>, or in any other way.

Html Inline vs Block Elements

https://developer.mozilla.org/en-US/docs/Web/HTML/Inline_elements
https://blog.hubspot.com/website/span-vs-div

A **block element** is a page element that starts a new line and has a width equal to the entire page or the parent container..
An **inline element** does not start a new line and only takes up as much space on the page as its content.

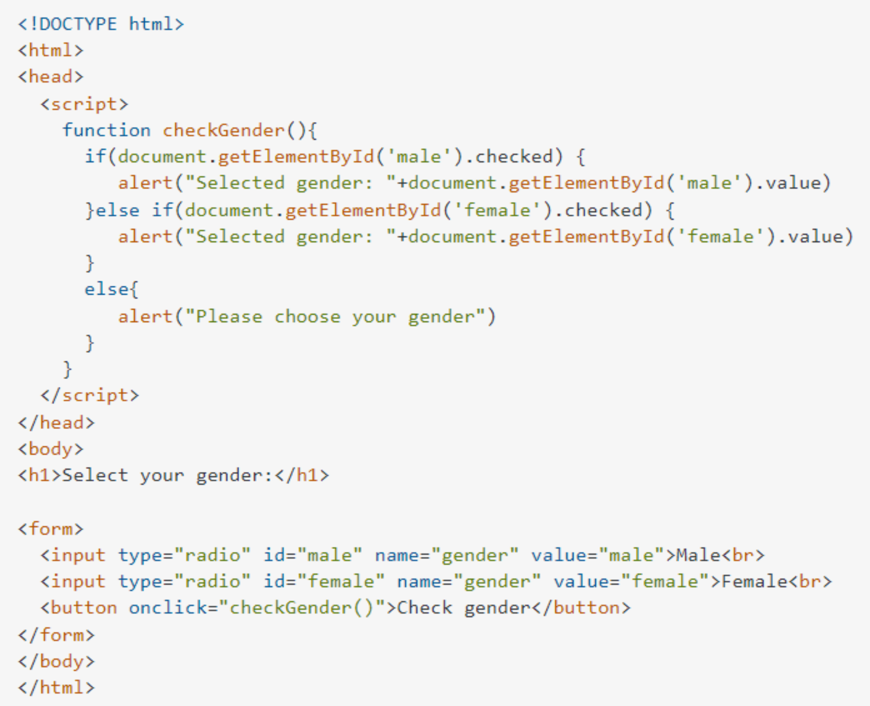
<div> used to group related paragraphs, images, headings, and links. For example, a three-paragraph article may be enclosed in a div, and a navigation menu containing links might be enclosed in another div.
<span> tags are used on small segments of text, links, images, and other HTML elements that appear inline with the surrounding content.

Form Validation

https://valid-form.pageclip.co/
https://github.com/Pageclip/valid-form
https://pageclip.co/blog/2018-02-20-you-should-use-html5-form-validation.html
https://github.com/yairEO/validator
http://yaireo.github.io/validator/

name vs id in html elements

The name attribute is used for posting to e.g. a web server or form submissions.
The id is primarily used for CSS (and JavaScript).
In the code, note that both 'name' attributes are the same to define optionality between 'male' or 'female', but the 'id's are not equals to differentiate them.



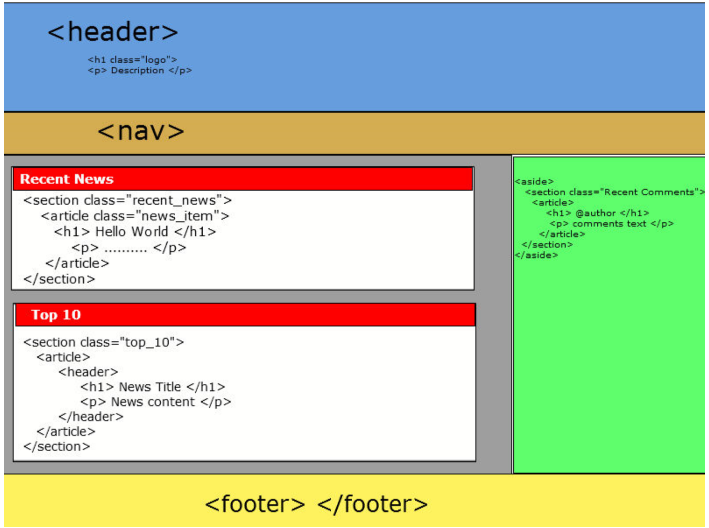
```html
<!DOCTYPE html>
<html>
<head>
  <script>
    function checkGender(){
      if(document.getElementById('male').checked) {
         alert("Selected gender: "+document.getElementById('male').value)
      }else if(document.getElementById('female').checked) {
         alert("Selected gender: "+document.getElementById('female').value)
      }
      else{
         alert("Please choose your gender")
      }
    }
  </script>
</head>
<body>
<h1>Select your gender:</h1>

<form>
  <input type="radio" id="male" name="gender" value="male">Male<br>
  <input type="radio" id="female" name="gender" value="female">Female<br>
  <button onclick="checkGender()">Check gender</button>
</form>
</body>
</html>
```

Document and website structure

To implement such semantic mark up, HTML provides dedicated tags that you can use to represent such sections, for example:

- header: <header>.
- navigation bar: <nav>.
- main content: <main>, with various content subsections represented by <article>, <section>, and <div> elements.
- sidebar: <aside>; often placed inside <main>.
- footer: <footer>

https://developer.mozilla.org/en-US/docs/Learn/HTML/Introduction_to_HTML/Document_and_website_structure#Enter_HTML5_structural_elements
https://www.w3schools.com/html/html5_semantic_elements.asp
https://sites.google.com/site/nttrungmtwiki/home/it/web-programming/01---html/tutorial---building-website-using-html5-and-css3

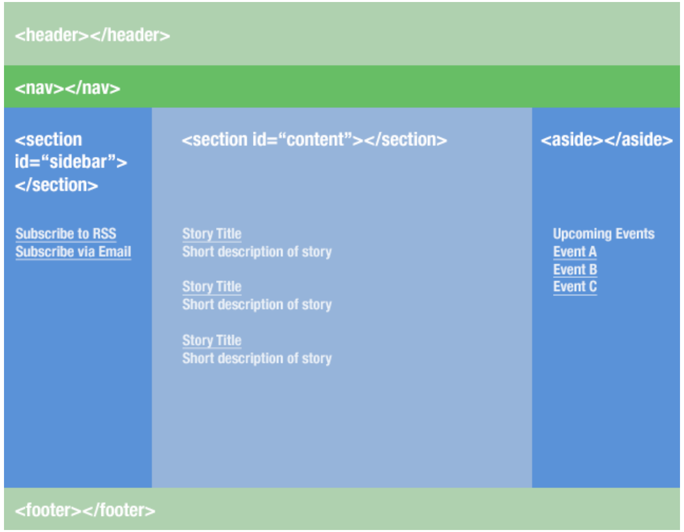


```
<h1 class="logo">
<p> Description </p>
```

```
<section class="recent_news">
   <article class="news_item">
      <h1> Hello World </h1>
         <p> .......... </p>
   </article>
</section>
```

```
<section class="top_10">
   <article>
      <header>
         <h1> News Title </h1>
         <p> News content </p>
      </header>
   </article>
</section>
```

```
<aside>
  <section class="Recent Comments">
    <article>
       <h1> @author </h1>
        <p> comments text </p>
      </article>
  </section>
</aside>
```

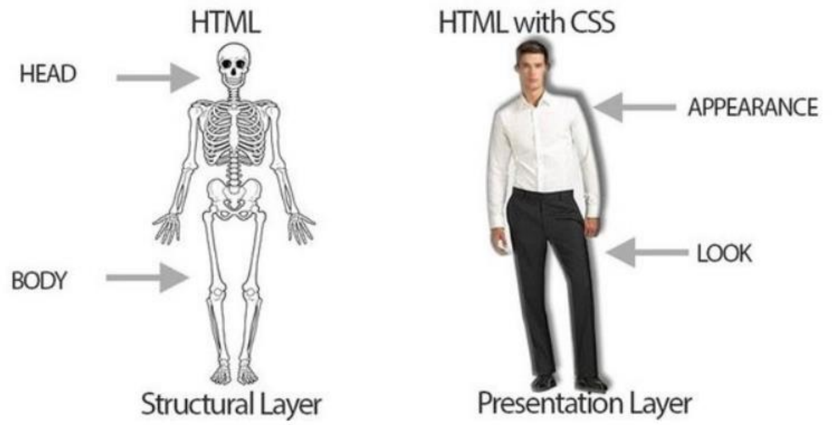


HTML Style Guide

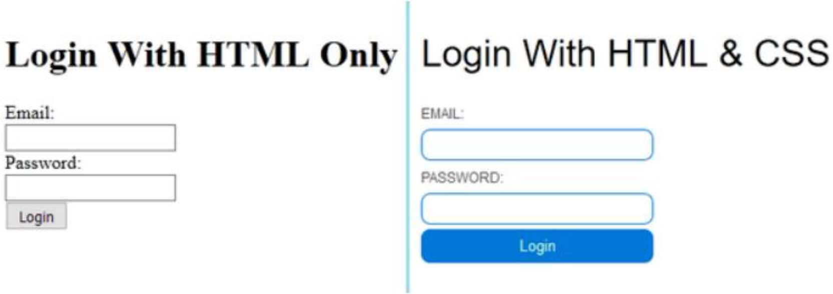
https://www.w3schools.com/html/html5_syntax.asp

Introduction To CSS

HTML & CSS



When we develop a web page how it is effected by HTML/HTML5 and CSS?



Login With HTML Only

Email:

Password:

Login With HTML & CSS

EMAIL:

PASSWORD:

What is CSS?

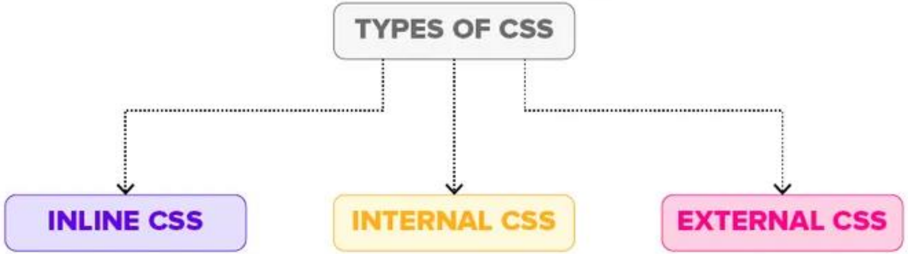
A Cascading Style Sheet, commonly known as CSS, is the layer of styling over HTML elements, or in simpler terms, it lets you style the elements (font, size, color, and spacing) of your HTML pages and content by gently applying classes to it. CSS takes care of the presentation and helps you determine how the pages and content that you make with HTML are going to look and display. CSS will be a savior once you have learned to master the code. To master CSS, you first need to understand the different types of CSS. There are basically three ways of writing CSS, which are mentioned below.

CSS

Cascading Style Sheets or CSS is a markup language that decides the manner in which web pages or websites appear to the visitors. It helps in manipulating the colours, fonts, and layouts of various website elements.
CSS also allows adding animations or effects to a website, such as animated backgrounds and click button effects. Without CSS, a website will be rendered as a plain HTML webpage, which is, obviously, not attractive.

3 Types of CSS Styles
There are some distinct ways of implementing the CSS code. These are known as CSS styles. Three types of CSS styles are available; inline CSS, external CSS, and internal CSS.

Although each of the CSS styles serves the same goal i.e. styling HTML code, how it is done is different for each. We will explore each of the CSS styles in the following section:



CSS

1. Internal CSS
Also known as embedded CSS, internal CSS refers to the practice of adding the CSS code to the HTML document pertaining to the web page where we wish to add the CSS styling.
For adding internal CSS, one needs to add the <style> tag inside the <head> section of the HTML file. Internal CSS is extremely useful for styling a single web page.

How to Use Internal CSS
Step #01 - Open the HTML file and go to the <head> tag.
Step #02 - Add <style type="text/css"> here.
Step #03 - Now, add the CSS code starting from the following line.
Step #04 - Close the <style> tag using </style>.
Step #05 - Save the HTML file for the changes to take effect.
Pros
No need to upload multiple files as the CSS code is added to the same HTML file corresponding to the web page.
Class and ID selectors can be used.
Cons
Adding CSS code to the HTML file results in increasing the page size and therefore, reducing the loading speed.
Using it for multiple web pages is ineffective as it is required to add the same CSS rules for every web page.jj

CSS

2. External CSS
To qualify for the external CSS style, a web page is required to be linked to an external file containing the CSS code. External CSS is a super-effective CSS styling method when developing a big website.

One can create the external .css file using some text editor, such as Notepad and Rapid CSS Editor. Here, the CSS code resides in a document other than the one containing the HTML code for the concerned web page, hence the name.
All minor and major changes for a website leveraging external CSS can be made merely by editing the single external .css file.

How to Use External CSS
Step #01 - Open a text editor and create a new file. Add the CSS code here that you wish to apply to the HTML web page(s).
Step #02 - Save the file as .css file and exit.
Step #03 - Open the HTML document where you wish to apply the CSS code.
Step #04 - Navigate to the <head> section in the HTML file and insert a reference to the external CSS file just after the <title> tag.
Step #05 - Save the HTML file.
Pros
A single external CSS file can be used for styling several web pages.
HTML files leveraging external CSS have a cleaner structure and are smaller in size.
Cons
Linking to or uploading several external CSS files might decrease a website’s download speed and affect its performance.
Web pages requiring the external CSS file might not be rendered accurately until the same is fully loaded.

CSS

3. Inline CSS

Unlike internal and external CSS styles, the inline CSS style is used for styling a particular HTML element and not the entire HTML code. For implementing inline CSS, one needs to add the style attribute to every HTML tag that requires styling. Selectors aren’t used here.

Maintaining a website only by using inline CSS is impractical. This is so because following the inline CSS styling every HTML tag must be styled separately. Hence, using it isn’t recommended.

Inline CSS, however, is quite useful in some particular scenarios. For instance, situations in which:

The CSS style must be applied only to one element, or

When access to CSS files isn’t available.

This type of CSS styling is used mainly for previewing/testing changes as well as applying quick fixes to a web page/website.

How to Use Inline CSS

Step #01 - Open the HTML file where you need to add the inline CSS.

Step #02 - Now, navigate to the element(s) where you want to insert the inline CSS.

Step #03 - Add style="code" to the tag(s) you wish to use the inline CSS at. Here, code is the CSS code that you need to add. For example, if we wish to add inline CSS to <h1> tag, it will look something like this:

<h1 style="code">

Pros

Allows instantly inserting CSS code to any HTML file.

There is no need for creating and uploading a separate file for adding the CSS code.

Cons

Adding CSS code to each and every HTML element wastes time.

Styling several elements affects page size and download speed.

Too much inline CSS can result in a messy HTML structure.

```
<h1 style="code">
```

What if I Use All the 3 CSS Styles in a Single Web Page?

It is possible to use each of the 3 CSS styles in one web page. What will result, however, is that the inline CSS style will override the other two CSS styles i.e. inline CSS code will take effect and not the other two. The priority for the 3 types of CSS styles follows this particular order:

Inline CSS > Internal CSS > External CSS

As you can use, when internal and external CSS styles are used for a web page, the internal CSS style will override the external CSS style.

Why is Bootstrap used? Why not use regular CSS?

CSS and bootstrap works the same.
These both are used for styling purpose.
CSS is handwritten whereas bootstrap is set of code which is pre-written.

Let me differentiate these both.
CSS:

- ⊙handwritten code.
- ⊙Consumes time.
- ⊙No boundaries for creativity.
- ⊙user must know about it and the way it works.(should have pre-knowledge)

BOOTSTRAP(Bs):

- ⊙pre-written code.
- ⊙Does not consume much time.
- ⊙Restricted to particular themes and styles.(can be also customized with css)
- ⊙Easy to learn it.(just copy and paste the code**).**

CSS Units

https://www.w3schools.com/cssref/css_units.asp

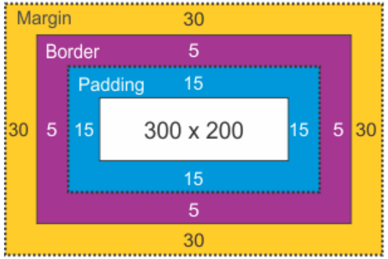
CSS guidelines

https://developer.mozilla.org/en-US/docs/MDN/Guidelines/Code_guidelines

The Viewport — which is the visible area of your page in the browser you are using to view a site
Overflow Contents — *https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/Overflowing_content*

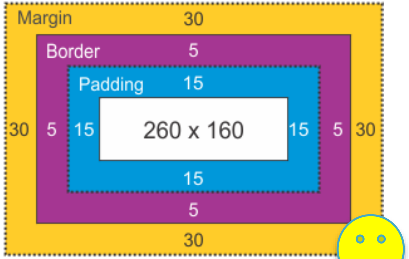
CSS Box Model vs Alternate Box Model (Auto computes width and height)

Box Model is content-box



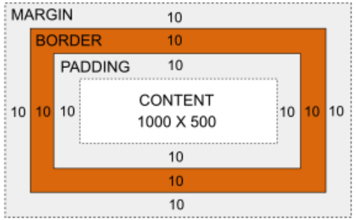
```
div{
      width: 300px;
      height: 200px;
      padding: 15px;
      border: 5px solid grey;
      margin: 30px;
      -moz-box-sizing: content-box;
      -webkit-box-sizing: content-box;
      box-sizing: content-box;
    }
```

Box Model is border-box



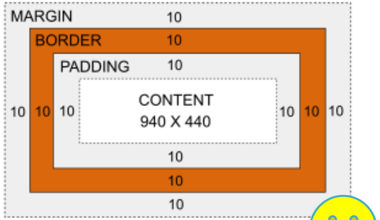
```
div{
      width: 300px;
      height: 200px;
      padding: 15px;
      border: 5px solid grey;
      margin: 30px;
      -moz-box-sizing: border-box;
      -webkit-box-sizing: border-box;
      box-sizing: border-box;
    }
```

BOX MODEL: CONTENT-BOX AT 1000w x 500h



```
div{
    width: 1000px;
    height: 500px;
    margin: 10px;
    border: 10px solid orange;
    padding: 10px;
    box-sizing: content-box;
}
```

BOX MODEL: BORDER-BOX AT 1000w x 500h



```
div{
    width: 1000px;
    height: 500px;
    margin: 10px;
    border: 10px solid orange;
    padding: 10px;
    box-sizing: border-box;
}
```

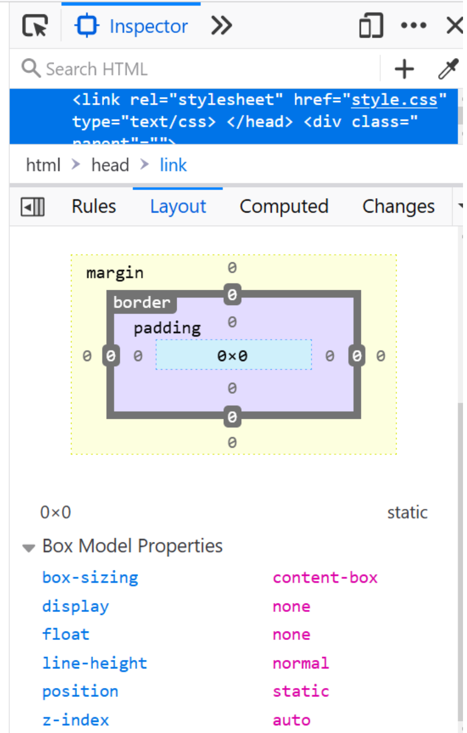
https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/The_box_model

https://medium.com/altcampus/introduction-to-box-model-e237de4f87a3

Highly recommended way of using alternate box model that usual box model –

https://css-tricks.com/inheriting-box-sizing-probably-slightly-better-best-practice/

CSS Box Model Mozilla Firefox



```
<link rel="stylesheet" href="style.css"
type="text/css> </head> <div class="
parent"="">
```

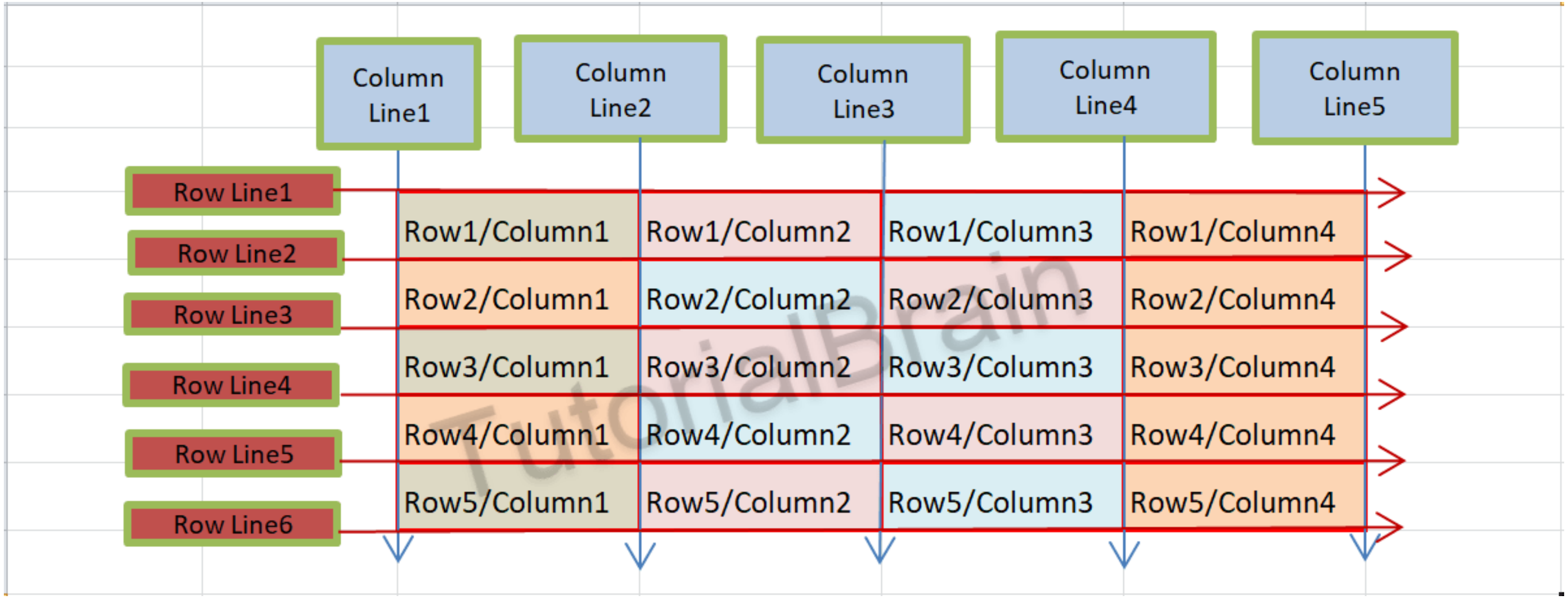
html > head > link

0×0 static

Box Model Properties

box-sizing	content-box
display	none
float	none
line-height	normal
position	static
z-index	auto

Grid Layout start/end



Row1/Column1	Row1/Column2	Row1/Column3	Row1/Column4
Row2/Column1	Row2/Column2	Row2/Column3	Row2/Column4
Row3/Column1	Row3/Column2	Row3/Column3	Row3/Column4
Row4/Column1	Row4/Column2	Row4/Column3	Row4/Column4
Row5/Column1	Row5/Column2	Row5/Column3	Row5/Column4

https://mozilladevelopers.github.io/playground/css-grid/07-basic-layout
https://codepen.io/mozilladevelopers/pen/eGdQRN
https://mozilladevelopers.github.io/playground/css-grid

Introduction To BootStrap

HTML vs BootStrap

HTML:

1.HTML is not a framework. Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications.

2.HTML is a markup language that web browsers use to interpret and compose text, images, and other material into visual or audible web pages.

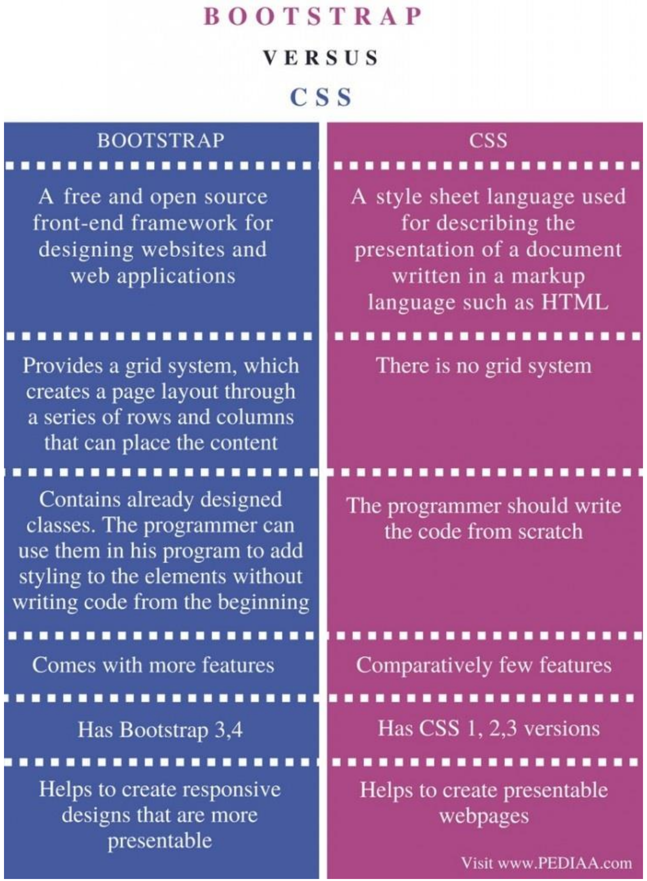
Bootstrap:

1.Bootstrap is HTML, CSS and JavaScript open-source framework.

2.Using bootstrap you can create responsive, mobile first web sites or web applications

Bootstrap is a framework created by twitter , With this we can create responsive websites to make website view user friendly in both computer and mobile devices

BOOTSTRAP vs CSS



BOOTSTRAP

VERSUS

CSS

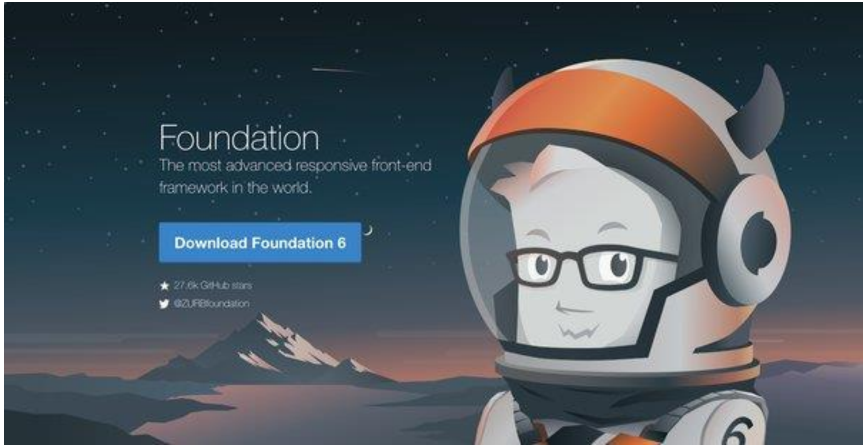
BOOTSTRAP	CSS
A free and open source front-end framework for designing websites and web applications	A style sheet language used for describing the presentation of a document written in a markup language such as HTML
Provides a grid system, which creates a page layout through a series of rows and columns that can place the content	There is no grid system
Contains already designed classes. The programmer can use them in his program to add styling to the elements without writing code from the beginning	The programmer should write the code from scratch
Comes with more features	Comparatively few features
Has Bootstrap 3,4	Has CSS 1, 2,3 versions
Helps to create responsive designs that are more presentable	Helps to create presentable webpages

Visit www.PEDIAA.com

Alternative to Bootstrap Foundation by Zurb

‘A Framework for any device, medium, and accessibility.’ is what they call themselves and they certainly are true. With all the perks of an advanced framework, Foundation is definitely the strongest alternative to Bootstrap. It is being used by some of the biggest organizations in the world for e.g. Adobe, Amazon, HP, eBay etc to quote a few. It included all the necessary components of an application like a responsive grid, buttons, basic typography, and many other UI elements.

Not only this, they also have ‘Foundation for Emails’ which is a framework to code responsive HTML emails. Hence, whenever you are looking for an alternative to Bootstrap, do give Foundation a try.



Foundation

The most advanced responsive front-end framework in the world.

Online Code Editor Best

- http://code.reloado.com/#javascript,html
- http://codemagic.gr
- http://codepen.io/
- http://cssdesk.com (no JavaScript support)
- http://dabblet.com/
- http://jsbin.com/
- http://liveweave.com
- http://plnkr.co/edit
- http://tinkerbin.heroku.com
- http://runnable.com/

References

https://github.com/w3c/

CSS Grid Learning:

https://stephaniewalter.design/blog/fun-places-to-learn-css-layout-part-2-grid-layout/
https://gridbyexample.com/examples/
https://alialaa.github.io/css-grid-cheat-sheet/
https://cssgrid-generator.netlify.app/
https://codepip.com/games/

Padding : Top>Right>Bottom>Left
https://www.w3schools.com/cssref/pr_padding.php

display:none vs display:inline vs display:block :-> None will not display the element value
https://www.w3schools.com/cssref/pr_class_display.php

References

float: right & float: left overflow issue

https://www.youtube.com/watch?v=2jwerNrU4wo&list=PLLnpHn493BHHhCVlCRhAMpeFwDH2BTE3p&index=12

Word Wrap:
https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Text/Wrapping_Text

https://blog.webdevsimplified.com/2022-01/css-position/