



KINGSLAND
UNIVERSITY

CSS Positioning and Style



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Pacing

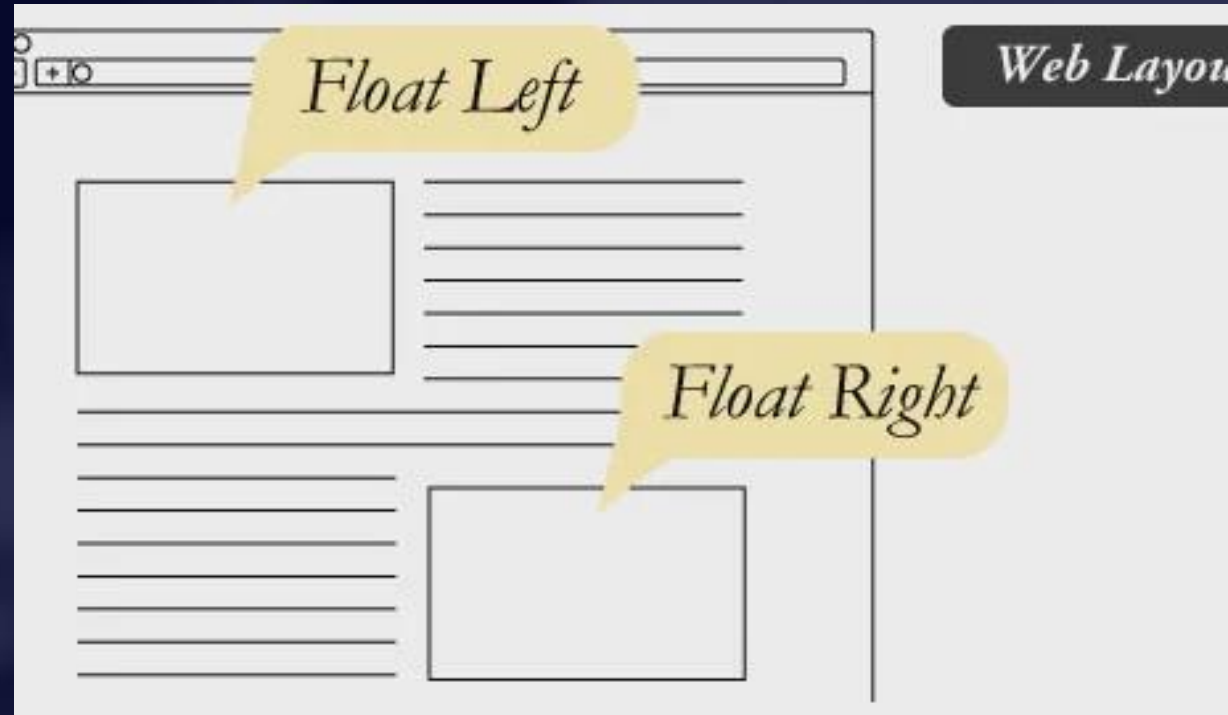
- Pace is fast
- Have to do this for length of class and amount of materials
- Take it as a challenge to overcome
- Review, review, review
- Make a point to not try to master everything
- Focus on finding what you need more than understanding every little detail



Pacing

- Don't worry we are also here to help
- Most important is the ABC's
 - Always
 - Be
 - Coding



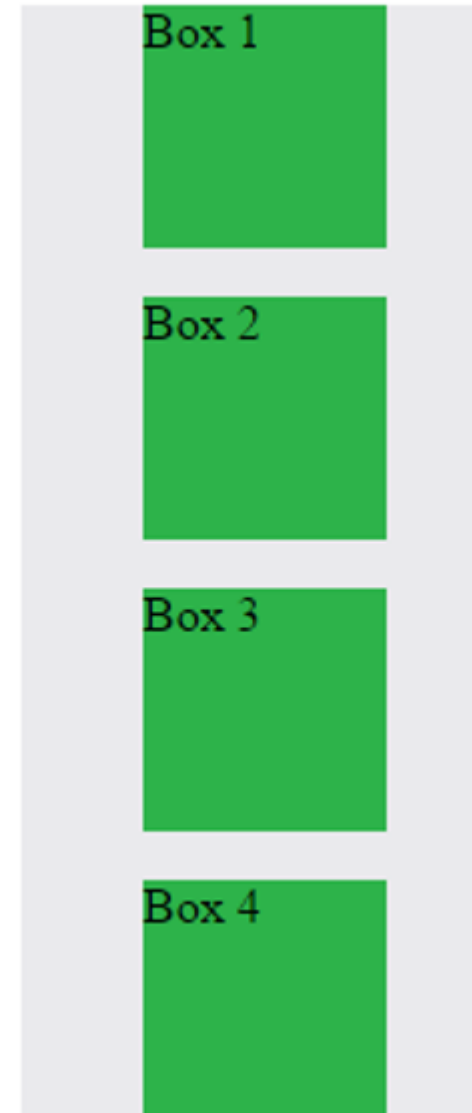


Positioning



Positioning: Static

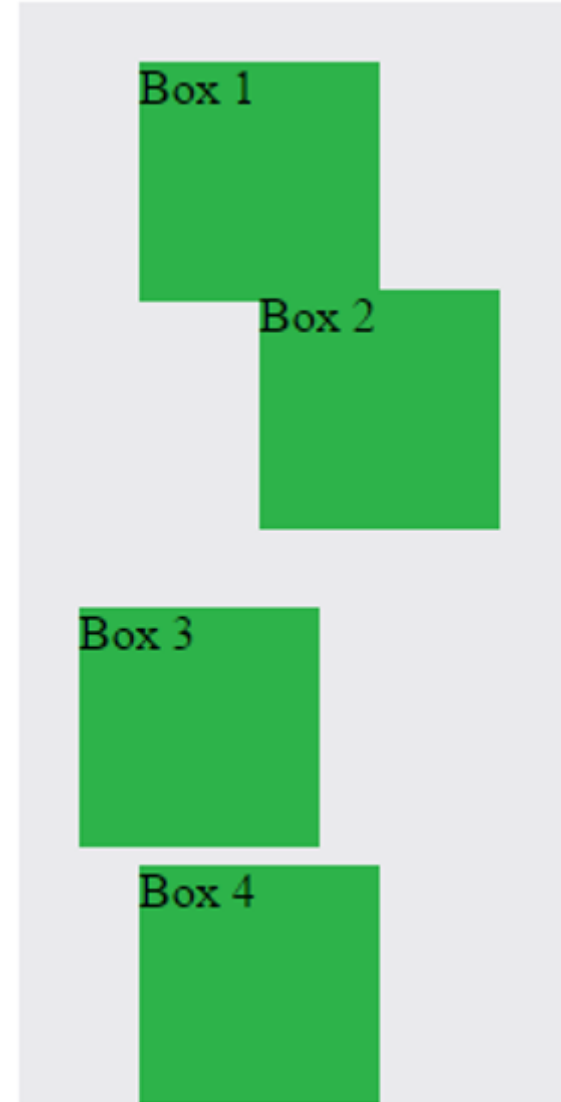
- This is the default layout of an HTML Page
- All elements will be stacked vertically



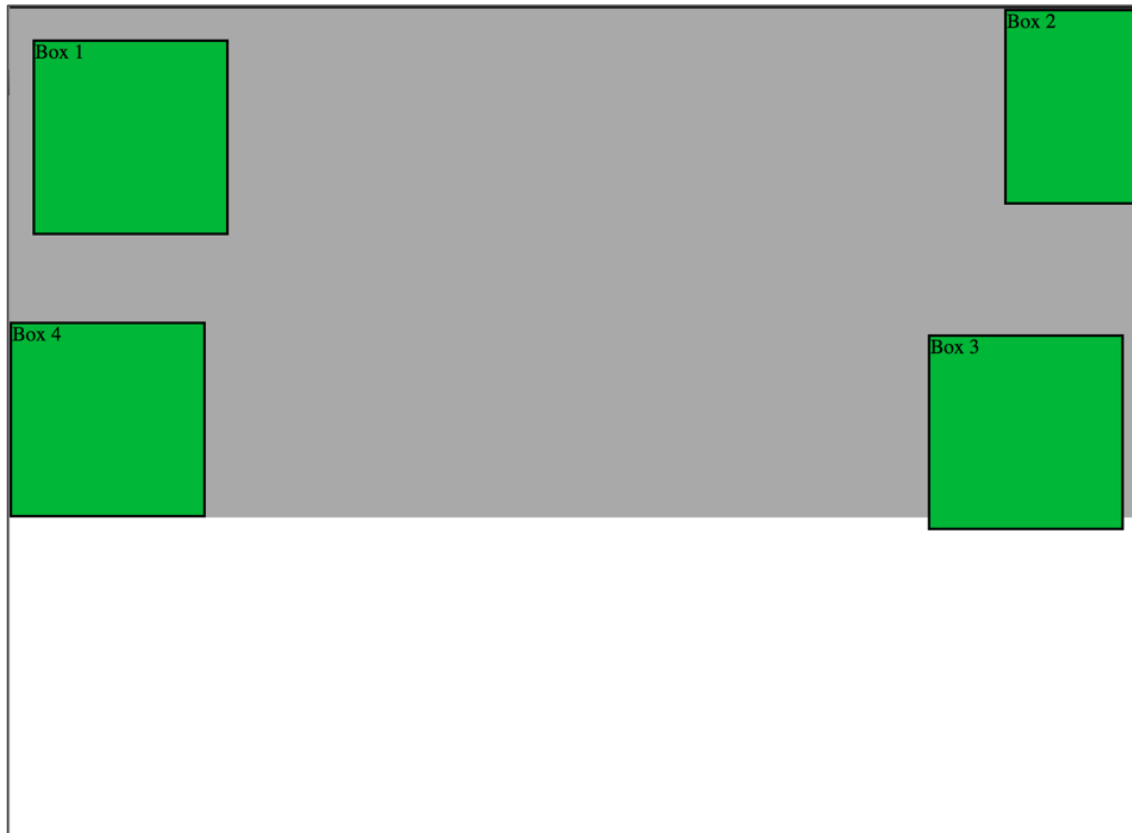
Positioning: Relative

- Switching The boxes to relative will nudge the boxes in relation to their “original” location

```
.box {  
  background: #2db34a;  
  position: relative;  
  width: 80px  
  height: 80px;  
}  
.box-1 {  
  top: 20px;  
}  
.box-2 {  
  left: 40px;  
}  
.box-3 {  
  bottom: -10px;  
  right: 20px;  
}
```



Positioning: Absolute

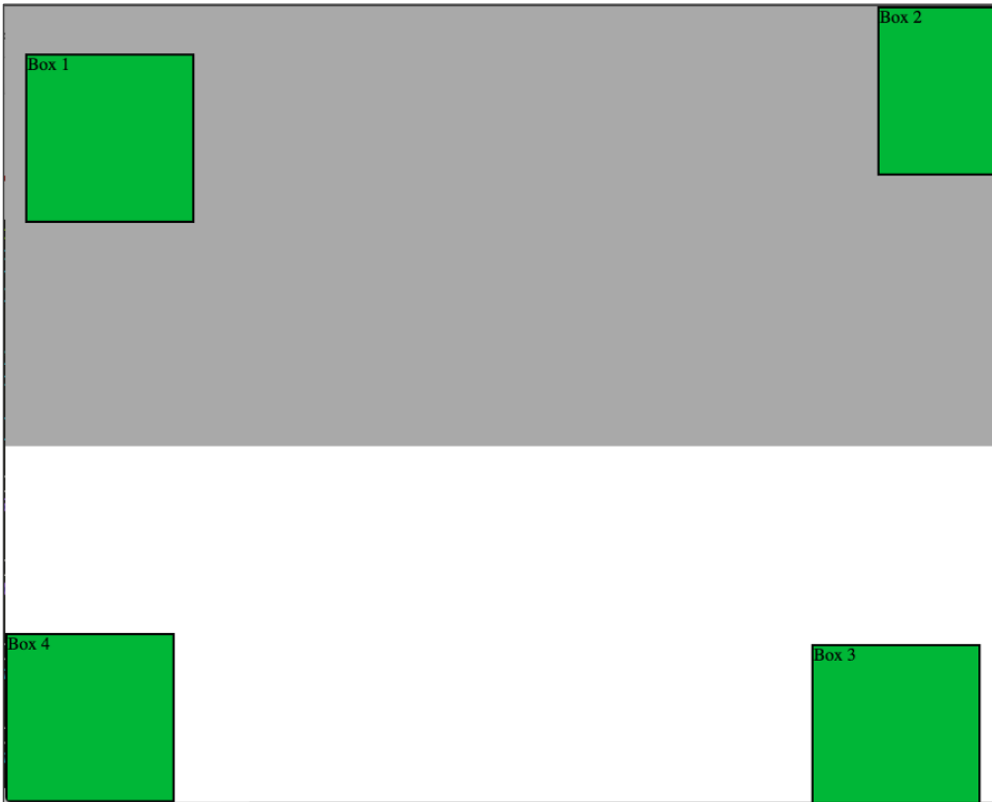


- Taken out of flow
- Takes up no space
- Position nearest to ancestor
- If parent doesn't exist, the Body is used

```
.box-set {  
  height: 400px;  
  background: darkgrey;  
  position: relative;  
}  
.box {  
  position: absolute;  
  width: 150px  
  height: 150px;  
  background: #2db34a;  
  border: 2px solid black;  
}  
.box-1 {  
  top: 6%;  
  left: 2%;  
}  
.box-2 {  
  top: 0;  
  right: -40px  
}  
.box-3 {  
  bottom: -10px;  
  right: 20px;  
}  
.box-4 {  
  bottom: 0px;  
}
```




Positioning: Fixed



```
.box-set {  
  height: 400px;  
  background: darkgrey;  
}  
.box {  
  position: fixed;  
  width: 150px  
  height: 150px;  
  background: #2db34a;  
  border: 2px solid black;  
}  
.box-1 {  
  top: 6%;  
  left: 2%;  
}  
.box-2 {  
  top: 0;  
  right: -40px  
}  
.box-3 {  
  bottom: -10px;  
  right: 20px;  
}  
.box-4 {  
  bottom: 0;  
}
```

- Fixed Positioning uses the Exact coordinates of the browser window





Hiding Elements

- Elements can be hidden using “display:none;”
- When an element is hidden it still exists on the page, just out of view.
- Unless made otherwise, the hidden element will also take up space in its original location.



Sizing



Measurement Units

- CSS has many different ways to show the size (length) of a property
- CSS properties take “length” values such as
 - Width, margin, padding, font-size, etc.
- The length property is a number followed by a unit
 - 10px, 2em, etc.
- A whitespace cannot appear between the number and the unit
 - Unit can be omitted for 0 values
- Some CSS properties allow negative lengths
- Units can be
 - Absolute
 - Relative





Absolute Lengths

- Absolute lengths
 - fixed and length expressed in in these values appear exactly that size
- Not recommended for use on screen
 - Screen sizes vary so the absolute size will change too



Unit	Description
cm	centimeters
mm	millimeters
in	inches (1in = 96px = 2.54cm)
px	pixels (1px = 1/96 of 1in)
pt	points (1pt = 1/72 of 1in)
pc	picas (1pc = 12pt)



Relative Lengths

- Relative length units specify a length relative to another length
- Relative lengths scale better between different rendering mediums
 - I-pad vs cellphone vs desktop monitor vs etc.

Unit	Description
em	Relative to the font-size of the element (2em means 2 times the size of the current font)
ex	Relative to the x-height of the current font (rarely used)
rem	Relative to font-size of the root element
vw	Relative to 1% of the width of the viewport (screen width)
vh	Relative to 1% of the height of the viewport (screen height)
%	Relative to the parent element

[Close](#)

<i>Alexis</i>	<i>Dakota</i>	<i>Harlow</i>	Monarch	<i>Rosetta</i>
Arista	Derby	<i>Heritage</i>	Montego	Sahara
<i>Astoria</i>	<i>Dundee</i>	<i>Insignia</i>	Mystical	Slider
Athena	Echelon	<i>Jasmine</i>	<i>Nautilus</i>	Sprint
<i>Atlantis</i>	<i>Electra</i>	Jasper	<i>Ninja</i>	<i>Starline</i>
Bebop	<i>Equinox</i>	Jazzy	<i>Novella</i>	Streamer
<i>Bingo</i>	<i>Fenwick</i>	<i>Katmandu</i>	<i>Oleander</i>	Tonto
<i>Bistro</i>	Flamenco	<i>Kendall</i>	Oracle	Triton
BOSKO	<i>Fiesta</i>	<i>Kingston</i>	<i>Palermo</i>	<i>Ulysses</i>
<i>Brush</i>	<i>Forte</i>	<i>Lancer</i>	Plasma	<i>Valerio</i>
<i>Cabana</i>	<i>Franklin</i>	<i>Lasalle</i>	POPTOP	<i>Vista</i>
<i>Gameo</i>	<i>Gazelle</i>	Lotus	Quest	<i>Willow</i>
<i>Cherish</i>	<i>Gillmore</i>	Mambo	<i>Raceway</i>	Wisteria
<i>Chisel</i>	<i>Halston</i>	<i>Merlin</i>	RAZOR	<i>Wrigley</i>
<i>Crescent</i>	<i>Hampton</i>	<i>Milano</i>	<i>Romano</i>	<i>Yorktown</i>

Topography

And Fonts



Typograph Properties

- Line Height:
 - Distance between lines of text on a page (Golden Ratio of 1.5x font).
- Font-Size:
 - Actual size of lettering. Should be at least 16 px on modern pages.
[Smashing Magazine: 16 pixels body copy anything less costly mistake](#)
- Line Length:
 - Not a CSS property but rather a standard. Should be about 50-75 characters per line on a desktop .
[Baymard.com: line length readability](#)
- Letter Spacing:
 - Spacing between individual letters—try to avoid cramping.
- Sans-Serif vs Serif:
 - Sans-serif are fonts sans their serifs—no tails. They're easier to read online.

Sarif vs Sans-Serif

- **Serif fonts** include small lines attached to the end strokes of letters.
- **Sans-Serif** (without serif) do not include such strokes.





Google Fonts

- Google provides a great open-source library
- Many styles of fonts are available
- Very easy to implement

The screenshot displays the Google Fonts website interface. At the top, the 'Google Fonts' logo is on the left, and navigation links for 'More scripts', 'About', 'Analytics', and 'New to Google Fonts?' are on the right. Below the header, there are tabs for 'Word', 'Sentence', 'Paragraph', and 'Poster', with 'Sentence' currently selected. A search bar indicates '708 font families shown'. On the left side, there are filter options: 'All categories' (selected), and expandable sections for 'Thickness', 'Slant', and 'Width'. Below these, the 'Script' is set to 'Latin', and there is a 'Reset all filters/search' button. Under the 'Styles' section, there is a 'Show all styles' button. The main preview area shows two font examples. The first example is 'Open Sans, 10 Styles by Steve Matteson' in 'Normal 400' weight, displaying the text 'Grumpy wizards make toxic brew for the evil Q'. The second example is 'Roboto, 12 Styles by Christian Robertson' in 'Normal 400' weight, displaying the text 'Grumpy wizards make toxic brew for the evil Que'. Both examples include icons for download, share, and embed, along with an 'Add to Collection' button.



Problem: Adding fonts

- Create (or re-use) an HTML Document of your choosing and then incorporate 2-3 custom Google fonts into the page.





Solution

- Code Together



```
.clearfix::after {  
  content: "";  
  display: block;  
  clear: both;  
}
```

Pseudo Styles

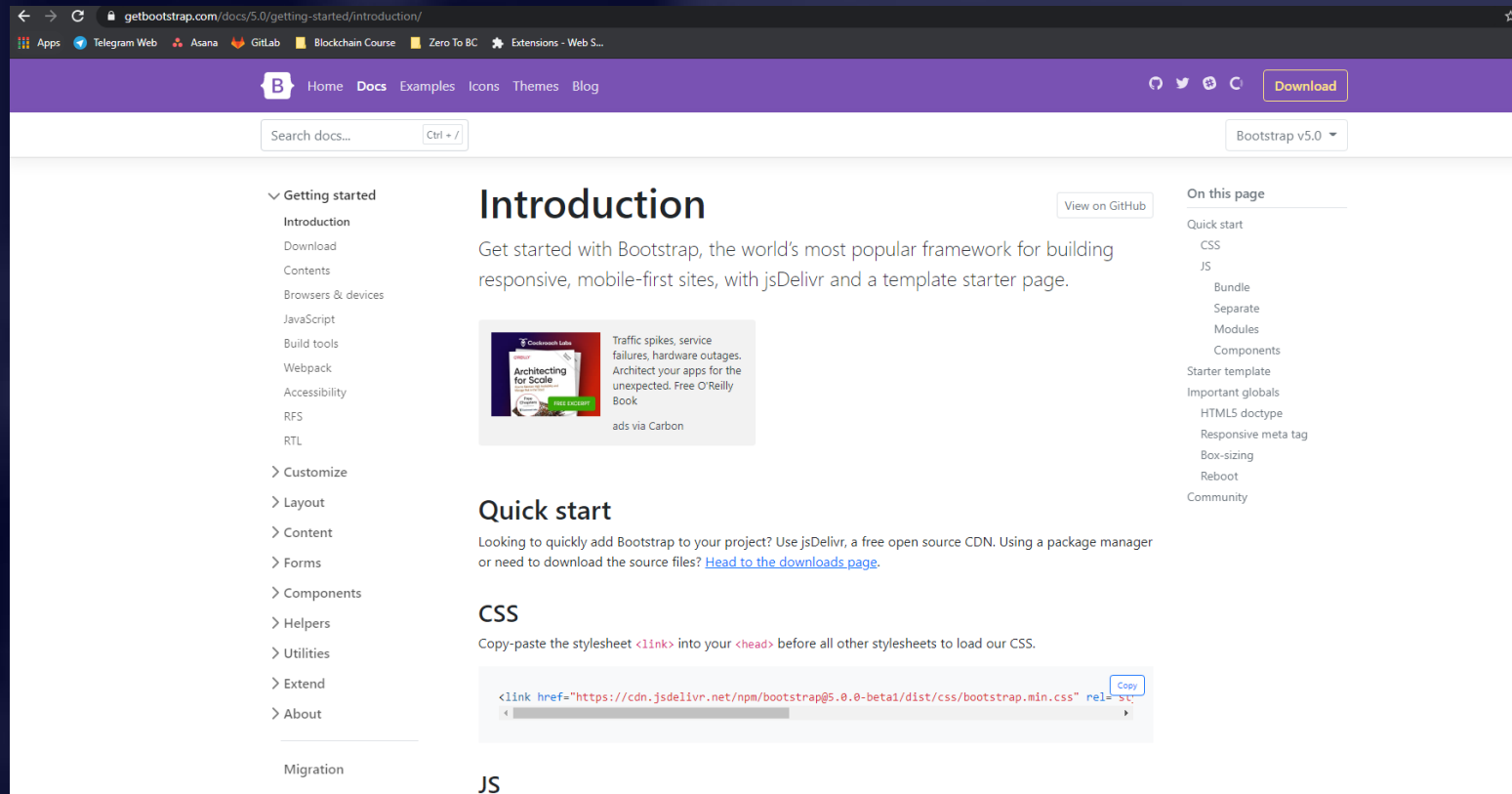


Pseudo Classes

- CSS has keywords that can be added to selectors. These highlight the special states of the selected element.
- Great example: CSS can hook onto the specific moment when a link is hovered over using the `:hover` pseudo-class.
- Complete list of pseudo-classes found here:
[MDN](#)
[w3schools](#)

Index of standard pseudo-classes

<code>:active</code>	<code>:link</code>
<code>:any</code>	<code>:not()</code>
<code>:checked</code>	<code>:nth-child()</code>
<code>:default</code>	<code>:nth-last-child()</code>
<code>:dir()</code>	<code>:nth-last-of-type()</code>
<code>:disabled</code>	<code>:nth-of-type()</code>
<code>:empty</code>	<code>:only-child</code>
<code>:enabled</code>	<code>:only-of-type</code>
<code>:first</code>	<code>:optional</code>
<code>:first-child</code>	<code>:out-of-range</code>
<code>:first-of-type</code>	<code>:read-only</code>
<code>:fullscreen</code>	<code>:read-write</code>
<code>:focus</code>	<code>:required</code>
<code>:hover</code>	<code>:right</code>
<code>:indeterminate</code>	<code>:root</code>
<code>:in-range</code>	<code>:scope</code>
<code>:invalid</code>	<code>:target</code>
<code>:lang()</code>	<code>:valid</code>
<code>:last-child</code>	<code>:visited</code>
<code>:last-of-type</code>	
<code>:left</code>	



Bootstrap

Adding External CSS Libraries



$$\int \sec \alpha t \sin \alpha t \, dt$$

$$y' = 2^{x^2} \cdot 2x \cdot \ln 2$$

$$x \cdot 2 \operatorname{Archt} = \ln \left(\frac{1+t}{1-t} \right)$$

$$+ \frac{1}{2} x \cdot C \quad \frac{\sinh 2x}{2x} \frac{dx}{dx} \frac{\mu+1}{\mu+1} - \frac{\mu+1}{\mu+1}$$

$$\frac{(2x^2)}{(1+x^2)}$$

$$y = \frac{1}{r^{3/2}}$$

$$\int_0^{\infty} x^{\mu} dx = \frac{x^{\mu+1}}{\mu+1}$$

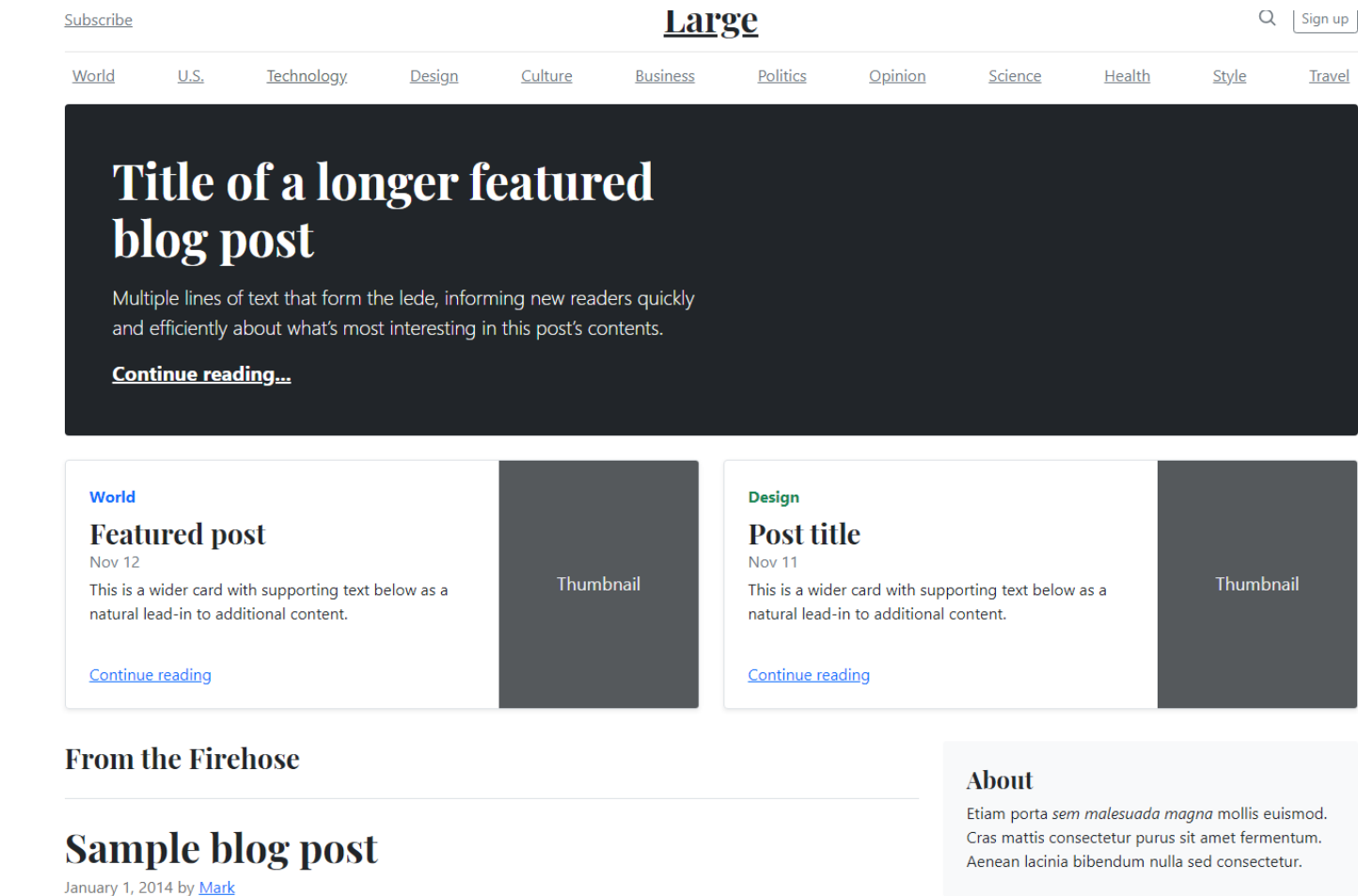
$$x^{\mu} dx y = \frac{1}{e^x} \frac{1}{e^x}$$

$$y = \frac{1}{e^x}$$

- [illegible]



Super powered by bootstrap





Adding Bootstrap to a Web page

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-giJF6kkoqNQ00vy+HMDP7azOuL0xtbfIcaT9wjKHr8RbDVddVHyTfAAsrekwKmp1" crossorigin="anonymous">
```

- Bootstrap has prebuilt classes with CSS already in them so you can build stylish pages without the CSS headache
- getbootstrap.com
- Bootstrap is a huge repository of CSS and JavaScript
- Bootstrap is one of the best documented resources on the web.
 - Use it!



Example

- Bootstrap Example time!



Responsive Design



Make a page look good at all sized

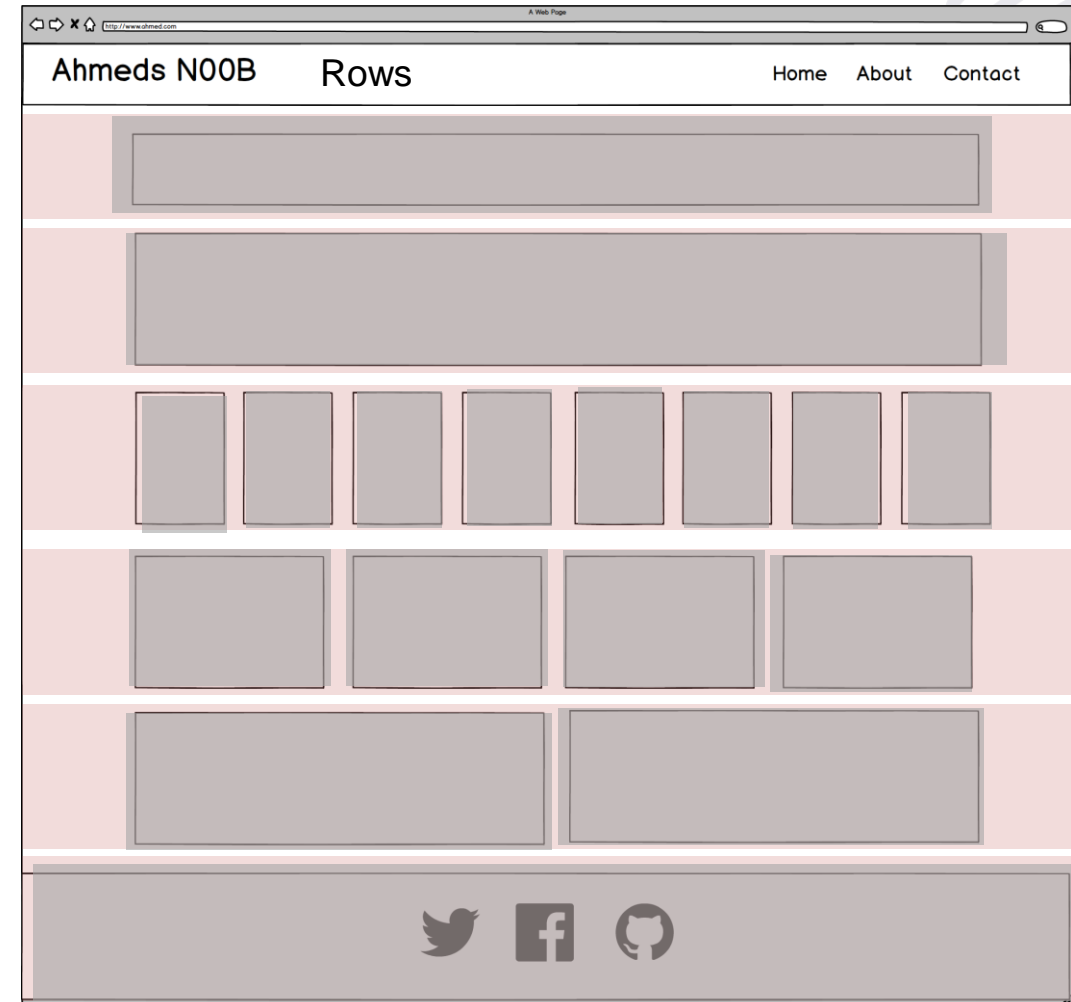
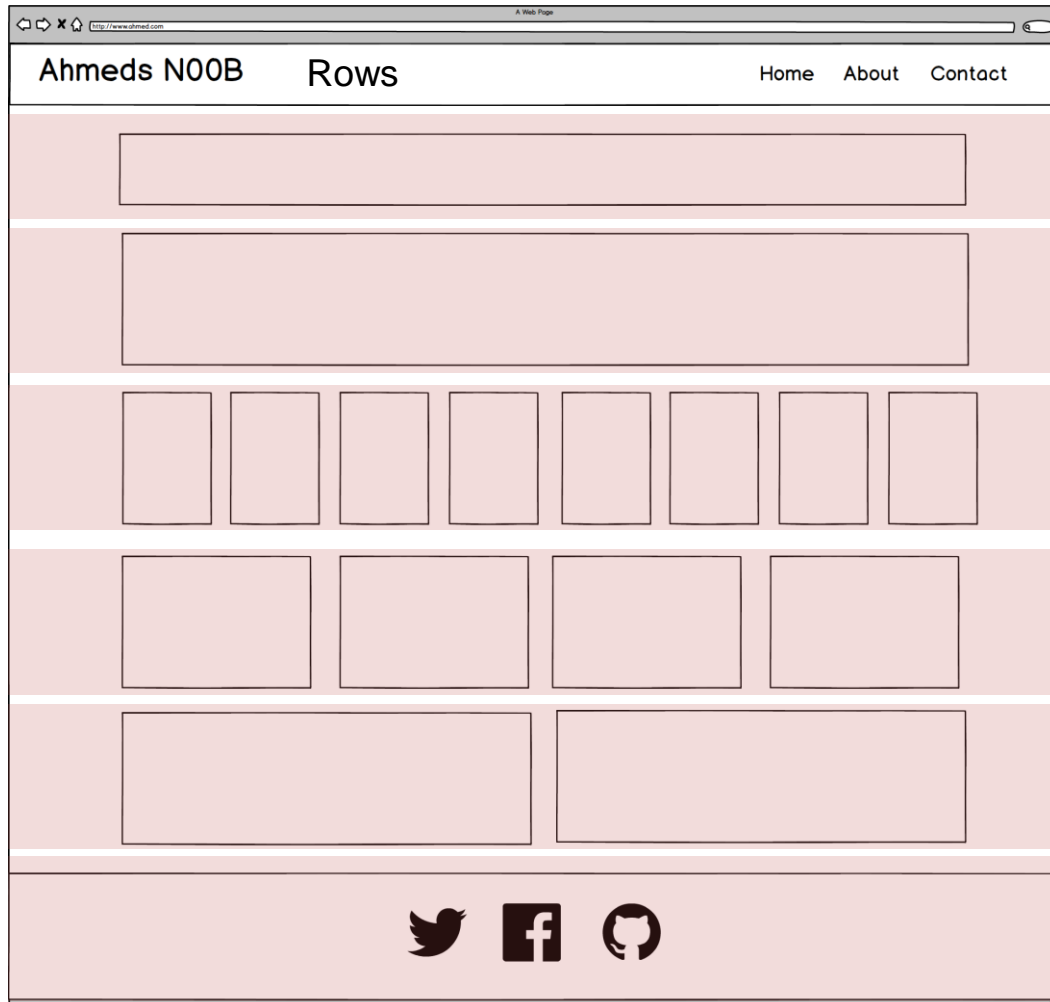
- Since the advent of cell phones a large emphasis of web development is making website that look good on any screen
- Custom CSS to provide responsive content is tough but can be beneficial.
- Usually we use libraries like Bootstrap to help us



First step is laying out a page



- To lay out a page we break it down into Rows and Columns





Smaller screen bigger boxes

- As a screen gets smaller
 - Reduce the number of columns per row
 - Make each row bigger
 - The price of space goes up
- This can be achieved with libraries like Bootstrap that can
 - Make columns bigger or smaller depending on screen size
 - Provide flexible areas on the screen so that a design can change for the same site on different screen sizes





Summary

- Positioning
- Unit Measurements
 - Absolute
 - Relative
- Topography
- Google fonts
- Bootstrap
- Layout with Responsive design





Questions?





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THANK YOU

