CSS Layout Part 2

Web Development

Lab 07: Learn CSS Layout Part 2

01. position

Vel et enim consulatu. Te civibus copiosae salutandi vel. Adhuc sonet libris ad eam, mundi affert mea ex. Dicunt feugiat patrioque et mel, id qui nusquam maluisset, ei vim justo ceteros vituperata. Mei saepe mediocrem ut. Repudiare definitiones ea ius, sint commodo est ea, nam no nemore diceret.

Te iriure moderatius vis, nam prodesset honestatis te. Atqui facilisi at est. Ex duo vocent incorrupte eloquentiam. Agam deterruisset vel at, has no illum ipsum alterum. Virtute vivendo officiis his et, ius viris tollit homero ad. In sit euismod salutatus, cu eos malorum luptatum consulatu, et nec debet antiopam.

Saperet maiestatis instructior te per, cu vel tota cotidieque. Vix illum regione deterruisset cu, ne cum diam suavitate complectitur, nec ex erant principes. Augue omittam no sea, putant forensibus usu te. Te iusto dicam verear mei. Dolorum posidonium no vel.

This element is relatively-positioned. If this element was position: static; its absolutely-positioned child would escape and would be positioned relative to the document body.

This element is absolutely-positioned. It's positioned relative to its parent.

the box model

I'm smaller...

And I'm bigger!

box sizing

We're the same size now!

Hooray!

margin: auto;

Lorem ipsum dolor sit amet, eos ut diam interesset, cu modo necessitatibus pri. Ne sit elit dicit, eum dico autem convenire an. Sed ei clita nullam, elit legimus voluptatibus ei his. Duo facilisi cotidieque at, invidunt platonem incorrupte ut has.

Vel et enim consulatu. Te civibus copiosae salutandi vel. Adhuc sonet libris ad eam, mundi affert mea ex. Dicunt feugiat patrioque et mel, id qui nusquam maluisset, ei vim justo ceteros vituperata. Mei saepe mediocrem ut. Repudiare definitiones ea ius, sint commodo est ea, nam no nemore diceret.

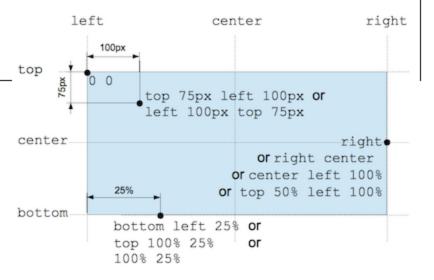
CSS Layout Part 2

- The clearfix hack
- Float layout example
- Percent width
- Media queries
- Inline-block
- Inline-block layout
- Column
- Flexbox

Clearfix hack

11. the clearfix hack

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, Uh oh... this image is taller than the element containing it, and it's floated, so it's overflowing outside of its container!



```
img {
   float: right;
}
.clearfix{
   overflow: auto;
}
```

Bad things can sometimes happen when using floats:

In this case an image overflows the container, we used float right for the image within the , however because it is taller than the text it overflows.

Float layout example

 It is common to do entire layouts using float. Here is the same layout we did with position last week, but using float instead.

```
<h1> 12. float layout example </h1>
<div class="clearfix">
   <u1>
     <a href="#">Home</a>
                                    <a href="#">Taco Menu</a> 
     <a href="#">Draft List</a> 
     <a href="#">Hours</a>
     <a href="#">Directions</a> 
     <a href="#">Contact</a>
                                   </nav>
 <section>
     This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this
     example, but it would be if the nav was longer than the non-floated content.
 </section>
 <section>
     Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi
     lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue
     eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare
     eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis
     dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc venenatis imperdiet sed ornare turpis.
     Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus
     pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.
   </section>
</div>
```

12. float layout example

- Home
- Taco Menu
- Draft List
- Hours
- Directions
- Contact

This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this expection {
be if the nav was longer than the non-floated content.

margin-

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width: 200px;
border: solid 1px;
}

ex section {
 margin-left: 200px;
 border: solid 1px;
}

sil

ssc
.clearfix {
 overflow: auto;
 overflow: auto;
}

float: left;

nav {

percent width

 Percent relative to the containing block.

```
article img {
  float: right;
  width: 50%;
  float: left;
  width: 25%:
  border: solid 1px;
section {
  margin-left: 25%;
  border: solid 1px;
.clearfix {
  overflow: auto;
```

```
<article class="clearfix dashed">
 <img src="css-positioning.png" alt="an image">
   You could even use <code>min-width</code> and <code>max-width</code>
 </article>
<nav>
```

13. percent width

left center right You could even use min-width and max-width to limit how big or small the image can get! top 75px left 100px or left 100px top 75px center right or right center or center left 100% or top 50% left 100% bottom bottom left 25% or top 100% 25%

- Home
- Taco Menu
- Draft List
- Hours
- Directions
- Contact

This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this example, but it would be if the nav was longer than the non-floated content.

100% 25%

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<u1> Home Taco Menu Draft List Hours Directions Contact </nav> <section> This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this example, but it would be if the nav was longer than the non-floated content. </section> <section> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc venenatis imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit. </section>

Mobile Web Design Best Practices

Three Approaches to Mobile Web:



Create a separate website hosted within your current domain targeted for mobile users e.g. m.itworld.com

Use CSS to configure your current website for display on both mobile and desktop devices.

Develop a mobile app which resides on the device

Mobile Web Limitations

Small Screen Size

Slow hardware

Low bandwidth

Awkward controls

Poor connectivity

Limited processor and memory

No hover states

- http://www.whitehouse.gov
- Slow error prone typing
- http://m.whitehouse.gov

- Less context
- Inaccurate clicks



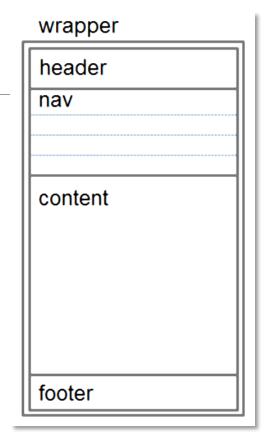
Approaches to mobile web

- Make web sites that work well on a variety of screens (presentation)
- Adjust your content for mobile users (content)
- Give your users a smooth experience even on a slow connection (performance)

Design Techniques for Mobile Web

- Single column design
- Avoid floats, tables, frames
- Descriptive page title
- Descriptive heading tags
- Optimize images
- Descriptive alt text for images
- Eliminate unneeded images

- Navigation in lists
- Em or percentage font size units
- Common font typefaces
- Good contrast between text and background colors
- Provide "Skip to Content" hyperlink
- Provide "Back to Top" hyperlink





Design Techniques for Mobile Web

- Set most padding and margin to 0.
- Background images may have to be adjusted so they have no-repeat and are positioned in the right top of the screen.
- Logos may also need modifying.

Media queries

- Responsive design is the strategy of making a site that "responds" to the browser and device that it is being shown on so it is awesome no matter what.
- CSS3 media queries are the most powerful tool for doing this. They currently
 enjoy decent support across many modern browsers. They basically allow you
 to gather data about the site visitor and use it to conditionally apply CSS styles.
 For our purposes, we're primarily interested in the min-width media feature,
 which allows us to apply specific CSS styles if the browser window drops below
 a particular width that we can specify.
- The set of pixel widths you can target are as follows:
- 320px, 480px, 600px, 768px, 900px, 1200px

Media Queries

- Determines the capability of the mobile device, such as screen resolution
- Directs the browser to styles configured specifically for those capabilities

• Example:

k href="lighthousemobile.css" rel="stylesheet"
media="only screen and (max-device-width: 480px)">



media queries

```
<h1> 14. media queries </h1>
<div class="clearfix">
<nav>
   <u1>
     <a href="#">Home</a>
                                  <a href="#">Taco Menu</a> 
     <a href="#">Draft List</a> 
     <a href="#">Hours</a>
                                  <a href="#">Directions</a> 
     <a href="#">Contact</a>
   </nav>
 <section>
   >
     This example works just like the last one. Notice we put a clearfix on the
     container. It's not needed in this example, but it would be if the nav was
     longer than the non-floated content.
   </section>
 <section>
   >
     Lorem ipsum dolor sit amet. consectetur adipiscing elit. Phasellus
     imperdiet, nulla et dictur
     scelerisque enim ligula ve
                                 14. media queries
     congue eget, auctor vitae
     Mauris ante ligula, facili
     convallis urna a lacus int
     dictum nisi, sed ullamcor:
     venenatis imperdiet sed or
                                     • Home
     venenatis. Integer fringil
     pulvinar nibh tempor porta
```

- Taco Menu
- Draft List
- Hours

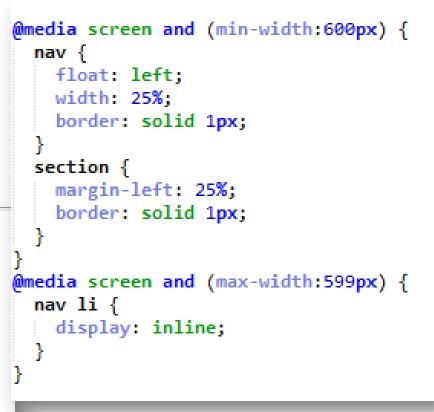
</div>

</section>

- Directions
- Contact

This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this example, but it would be if the nav was longer than the non-floated content.

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14. media queries

Home Taco Menu Draft List Hours Directions Contact

This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this example, but it would be if the nav was longer than the non-floated content.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc venenatis imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.

Viewport Meta Tag

- Default action for most mobile devices is to zoom out and scale the web page
- Viewport Meta Tag





Configures width and initial scale of browser viewport

<meta name="viewport" content= "width=device-width, initial-scale=1.0">

inline-block

Grid of boxes that fills the browser width and wraps nicely. You can set a width and height.

```
.box {
  display: inline-block;
  width: 200px;
  height: 100px;
  margin: 1em;
  border: solid 1px;
}
.after-box {
  border: solid 1px;
}
```

15. inline block

```
I'm floating!

I'm floating!
```

```
<div class="box">
    I'm floating!
   </div>
 <div class="box">
    I'm floating!
   </div>
   <div class="box">
    I'm floating!
   </div>
   <div class="box">
    I'm floating!
   </div>
   <div class="box">
    I'm floating!
   </div>
 <section class="after-box">
    I'm using clear so I don't float next to the above boxes.
   </section>
</body>
```

inline-block layout

 You can use inline-block for layouts. Remember to set the width and vertical-align to top.

- Home
- Taco Menu
- <u>Draft List</u>
- Hours
- Directions
- Contact

This example works just like the last one. Notice we put a clearfix on the container. It's not needed in this example, but it would be if the nav was longer than the non-floated content.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc venenatis imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.

```
<div class="dashed">
 <nav class="dashed">
   <u1>
     <a href="#">Home</a>
     <a href="#">Taco Menu</a> 
     <a href="#">Draft List</a> 
     <a href="#">Hours</a>
     <a href="#">Directions</a> 
     <a href="#">Contact</a>
   </nav>
 <div class="column dashed">
 <section>
     This example works just like the last one. Notice we put a clearfix on the
     container. It's not needed in this example, but it would be if the nav was
     longer than the non-floated content.
   </section>
 <section>
     Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus
     imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae
     scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec
     congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet.
     Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent
     convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis
     dictum nisi, sed ullamcdrper ipsum dignissim ac. In at libero sed nunc
     venenatis imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida
     venenatis. Integer fringilla congue eros non fermentum. Sed dapibus
     pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.
   </section>
 </div>
</div>
```

```
nav{
    display: inline-block;
    vertical-align: top;
    width: 25%;
}
.column{
    display: inline-block;
    vertical-align: top;
    width: 74%;
}
```

column

 css columns are very new, so you need to use the prefixes and it won't work in IE9 or Opera Mini

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet.
Mauris ante ligula, facilisis sed
ornare eu, lobortis in odio. Praesent
convallis urna a lacus interdum ut
hendrerit risus congue. Nunc
sagittis dictum nisi, sed
ullamcorper ipsum dignissim ac. In
at libero sed nunc venenatis

imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.

```
<body>
<section>
   Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus
     imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae
     scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec
     congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet.
     Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent
     convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis
     dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc
     venenatis imperdiet sed ornare turpis. Donec vitae dui eget tellus gravida
     venenatis. Integer fringilla congue eros non fermentum. Sed dapibus
     pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.
   </section>
</body>
```

```
.three-column {
  padding: 1em;
  -moz-column-count: 3;
  -moz-column-gap: 1em;
  -webkit-column-count: 3;
  -webkit-column-gap: 1em;
  column-count: 3;
  column-gap: 1em;
}
```

- The new flexbox layout mode is poised to redefine how we do layouts in CSS. Unfortunately the specification has changed a lot recently, so it is implemented differently in different browsers.
- The following examples only work with some browsers that use the latest version of the standard.

https://css-tricks.com/snippets/css/a-guide-to-flexbox/

simple layout.

```
<div class="container dashed">
<nav>
   <l
     <a href="#">Home</a>
                                   <a href="#">Taco Menu</a> 
     <a href="#">Draft List</a> 
     <a href="#">Hours</a>
                                   <a href="#">Directions</a> 
     <a href="#">Contact</a>
   </nav>
 <div class="flex-column dashed">
 <section>
   Flexbox is so easy!
 </section>
 <section>
   >
     Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi
     lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue
     eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare
     eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis
     dictum nisi, sed ullamcorper ipsum dignissim ac. In at libero sed nunc venenatis imperdiet sed ornare turpis.
     Donec vitae dui eget tellus gravida venenatis. Integer fringilla congue eros non fermentum. Sed dapibus
     pulvinar nibh tempor porta. Cras ac leo purus. Mauris quis diam velit.
   </section>
</div>
</div>
```

- Home
- Taco Menu
- Draft List
- Hours
- <u>Directions</u>
- Contact

Flexbox is so easy!

inergy or operation procurrency medicare principles and the principles are the principles and the principles are the principles

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```
.container {
    display: -webkit-flex;
    display: flex;
}

nav {
    width: 200px;
}

.flex-column {
    -webkit-flex: 1;
    flex: 1;
}
```

```
.container {
   display: -webkit-flex;
   display: flex;
.initial {
       width: 200px;
   min-width: 100px;
.none {
 -webkit-flex: none:
         flex: none:
 width: 200px;
.flex1 {
  -webkit-flex: 1;
      flex: 1;
.flex2 {
  -webkit-flex: 2;
      flex: 2;
```

```
<body>
<div class="container dashed">
 <div class="initial dashed">
   I will be 200px when there is room, and I will shrink down to 100px if there is not room, but no smaller.
  </div>
  <div class="none dashed">
   I will always be 200px, no matter what.
 </div>
  <div class="flex1 dashed">
   I will fill up 1/3 of the remaining width.
  </div>
 <div class="flex2 dashed">
   I will fill up 2/3 of the remaining width.
 </div>
</div>
</body>
```

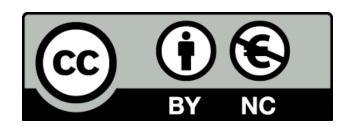
 more complex layout, one flex container with several div's each with its own properties set for sizing.

I will be 200px when there is	I will always be 200px, no	I will fill up 1/3 of the	I will fill up 2/3 of the remaining width.	
room, and I will shrink down	matter what.	remaining width.		
to 100px if there is not room,				
but no smaller.	•	<u> </u>		

Finally it's easy to vertically center something in CSS!

```
.vertical-container {
    height: 300px;
    display: -webkit-flex;
    display: flex;
    -webkit-align-items: center;
    align-items: center;
    -webkit-justify-content: center;
    justify-content: center;
}
```

Centering using
 Flexbox makes the
 process a lot easier
 and exact than
 alternative methods.



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