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# WEEK 2

## MASTERING BASIC CSS

# TODAY

## Grand Ambitions

- Taking the CEID orientation exam (5 minutes)
- Trying again to join the Lore (5 minutes)
- Homework review (20 minutes)
- HTML Wrap Up (30 minutes with demos)
- Advanced basic CSS :) (25 minutes)
- Admin (5 minutes)
- Note: lots and lots of slides. Some will go fast. That's okay. Ask questions, review them later, attend office hours, and experiment and google.

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# CEID EXAM

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# JOINING THE LORE

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join.lore.com/VCXPCW

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# HOMEWORK REVIEW

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HACKYALE OSCARS
THE MOST OF THE MOST

# MOST RIDICULOUS

## (AND BEST USE OF THE MARQUEE TAG)

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# SHANAZ CHOWDHERY

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# BEST ACTRESS IN THE ROLE OF AN ANIMAL

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# TIE!

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# JESSIE GARLAND
# &
# ALYSSA DENNING

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# COOLEST HOVER EFFECT

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# DEANNA ZHANG

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# MOST THOUGHTFUL LINKS

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# TIE!

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# ALY MOORE
# &
# SENEM CILINGIROGLU

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# LESS IS MORE AWARD
# (MOST MINIMALIST)

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# CHIKA OTA

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# COOLEST GRAPHIC

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# SUSANNA SHATTUCK

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# BEST GIF NOT BY SHANAZ

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# NATHAN YOHANNES

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# COMMON SLIP UPS

AND SOLUTIONS

# SELF-CLOSING TAGS DON'T CLOSE THEMSELVES

```
<img src="./my_image.png" />
```

NOT

```
<img src="./my_image.png">
```

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# DOCTYPE, HEAD, BODY

EVERY HTML DOCUMENT NEEDS THEM

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# A COUPLE OTHER THINGS

INDENTATION, CAPITALIZING TAGS, SPACES BETWEEN TAGS AND CONTENT.

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# OVERALL, AMAZING WORK!

- After 2.5 hours of formal instruction, you guys are already doing awesome things.
  - You've launched live websites with links, multiple pages, user-responsive effects, organized layouts, and more.
- A great general grasp of the purpose of HTML and CSS.

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# HTML WRAP UP

## CLASSES AND IDS

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# CLASS

A way to refer to a specific element or group of elements

- Not class like the class your in right now
- Class like a weight class in boxing
- Or like the “best mid-size sedan in its class”
- logical label of a category or group

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# APPLIED AS AN ATTRIBUTE

What's an attribute again?

- example:
  - `<a href="./other_page.html" class="cool-link">Click Here!</a>`
- Order of attributes doesn't matter
  - `<a href="./other_page.html" class="cool-link">Click Here!</a>`
  - `<a class="cool-link" href="./other_page.html">Click Here!</a>`

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# MOST USEFUL FOR STYLING

We use classes to differentiate out a group of elements to receive a certain set of styles.

- example:
  - `<a href="./cool_page.html" class="cool-link">Click Here!</a>`
  - `<a href="./lame_page.html">Don't click here.</a>`
- and in your css:

```
.cool-link {
  color: red;
  font-size: 100px;
  font-family: "Helvetica Neue", serif;
}
```

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# PREFIX CLASSNAMES WITH A DOT IN CSS

CSS knows when it sees something that starts with a dot to look for all elements with the classname equal to what follows

the dot

```
.cool-link {
  color: red;
  font-size: 100px;
  font-family: "Helvetica Neue", serif;
}
```

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# LET'S PUT CLASSES ON OUR WEBSITE

## CODING EXERCISE

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# GREAT, BUT WHAT ARE IDS?

A way to refer to a specific element (never multiple!)

- When you apply an id to an element, you agree never to use that id on any other elements on that page.
- If you do, funky and unpredictable stuff will happen.

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# EXAMPLE

## the HTML

- `<a href="./other_page.html" id="only-cool-link">Click Here!</a>`
- reminder: order of attributes doesn't matter
- and in your CSS:

```
#only-cool-link {
  color: red;
  font-size: 100px;
  font-family: "Helvetica Neue", serif;
}
```

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# PREFIX IDS WITH A POUND SIGN IN CSS

CSS knows when it sees something that starts with a pound sign to look for all elements with the id equal to what follows

pound sign

```
#only-cool-link {
  color: red;
  font-size: 100px;
  font-family: "Helvetica Neue", serif;
}
```

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# IN MOST CASES YOU CAN USE EITHER

A class is usually safer, so save ids for very specific things that will not repeat.

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# POP QUIZ!

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# WHICH IS MORE APPROPRIATE? A CLASS OR AN ID?

For a button that you want to have a blue background?

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# CLASS

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# WHICH IS MORE APPROPRIATE? A CLASS OR AN ID?

For the unique “wrapper” div that you put all your content in?

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# PROBABLY ID, BUT A CLASS IS FINE TOO.

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# WHICH IS MORE APPROPRIATE? A CLASS OR AN ID?

For a link that links to a different website (e.g. NYTimes)?

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# CLASS

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# OTHER IMPORTANT HTML TOPICS TO GOOGLE ON YOUR OWN

We will probably cover them, but no guarantees, and not today in class.

- meta tags
- forms
- iframes
- explore and google them!

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# STYLESHEETS

## BROWSER DEFAULTS

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# DEFAULT STYLESHEETS

Each browser has its own default stylesheet

- This is why links are blue and underlined even when you don't style them
- Default stylesheets vary a bit from browser to browser
- Many developers use CSS resets to standardize their styles

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# CSS RESETS

Resets override the browser's default stylesheet, allowing for cross-browser consistency

- There are many resets on the market. ***Normalize.css*** is nice.
  - Normalize isn't quite a reset, because it keeps some useful styles, saving the developer time and effort of reimplementing
  - Supported in Chrome, Firefox 3+, Safari 4+, Opera 10+, Internet Explorer 6+
  - Used by Twitter Bootstrap, HTML 5 Boilerplate, and css-tricks.com
  - http://necolas.github.com/normalize.css/

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# DEMONSTRATION

NORMALIZE.CSS PARTY, I'M HOSTING!

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http://cloudchill.in/stylesheets/normalize.css

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# A QUICK NOTE ON THE NEXT ~20 SLIDES

WE ARE GOING TO MOVE FAST. THE THREE MAIN REASONS THESE SLIDES ARE IN TODAY'S LECTURE ARE (1) THEY'RE PRETTY, (2) THEY WILL INTRODUCE YOU TO SOME IMPORTANT CONCEPTS IN CSS, AND (3) THEY WILL BE VERY IMPORTANT FOR REFERENCE DURING THIS WEEK'S ASSIGNMENT. IT'S OKAY IF YOU DON'T UNDERSTAND AND MEMORIZE EVERYTHING RIGHT AWAY, AND PLEASE ASK QUESTIONS!

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# THE BOX MODEL

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# THE BOX MODEL


***Each element exists as a nested box.***

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# PROPERTIES THAT AFFECT THE BOX MODEL

- `width`
- `height`
- `padding`
- `border`
- `margin`
- All can have `-top`, `-right`, `-left`, and `-bottom`
  - e.g. `margin-top: 40px;`
- (Note: `Position` and `Float` also play a role)

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# THE DISPLAY PROPERTY

DISPLAY: INLINE;

# DISPLAY VALUES: BLOCK

`display: block;`

- Element takes up the full available width
- Begins on a new line, forces following content onto a new line

```
Some text I wrote here.
<div>My div is here!</div>
And more text continues here.
```

Some text I wrote here

My div is here!

And more text continues here.

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# DISPLAY VALUES: INLINE

`display: inline;`

- Element takes up only the width of its content
- Remains in the flow of the document (does not start a new line)

```
<p>I’ve got a paragraph of
text here. In the middle, I’d
like to put some <span>frilly
text</span> so that my
students think I’m cute.</p>
```

I’ve got a paragraph of text here. In the middle, I’d like to put some *frilly text* so that my students think I’m cute.

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# DISPLAY VALUES: NONE

`display: none;`

- Element is not rendered in the browser
- Removed from the flow of the document
  - i.e. it does not affect the positioning of other elements

```
<p>I’ve got a paragraph of
text here. In the middle, I’d
like to put some <span
style=”display:none;”>frilly
text</span> so that my
students think I’m cute.</p>
```

I’ve got a paragraph of text here. In the middle, I’d like to put some so that my students think I’m cute.

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# DISPLAY VALUES: INLINE-BLOCK

```
display: inline-block;
```

- Rendered like an inline element (only takes up needed width, doesn't disrupt document flow)
- Allows us to set block-display properties like width, height, and top and bottom padding / margin

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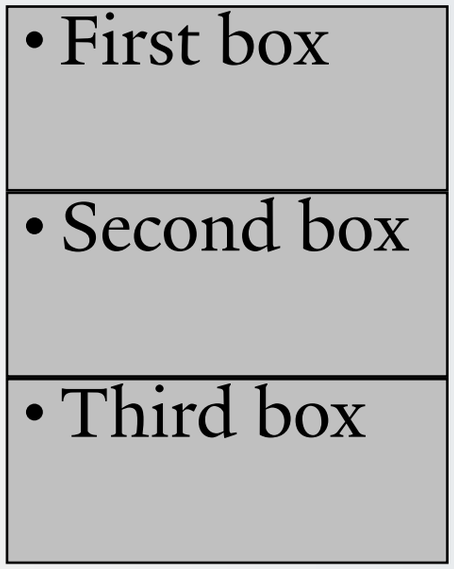
# DISPLAY VALUES: PRACTICE

```
<ul id=”my-boxes”>
    <li>First box</li>
    <li>Second box</li>
    <li>Third box</li>
</ul>
```




```
#my-boxes li {
    display: block; /* default */
    width: 175px;
    height: 75px;
    background: gray;
    border: 1px solid black;
}
```

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# DISPLAY VALUES: PRACTICE

```
<ul id=”my-boxes”>
    <li>First box</li>
    <li>Second box</li>
    <li>Third box</li>
</ul>
```


```
#my-boxes li {
    display: inline;
    width: 175px;
    height: 75px;
    background: gray;
    border: 1px solid black;
}
```

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# DISPLAY VALUES: PRACTICE

```
<ul id=”my-boxes”>
    <li>First box</li>
    <li>Second box</li>
    <li>Third box</li>
</ul>
```


```
#my-boxes li {
    display: inline-block;
    width: 175px;
    height: 75px;
    background: gray;
    border: 1px solid black;
}
```

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# EACH ELEMENT TYPE HAS A DEFAULT DISPLAY PROPERTY

Defaults

- usually '*inline*' or '*block*'
- inline
  - `span`, `a`, `em`, `img`, most text modifiers
- block
  - `div`, `p`, `ul`, `form`, etc.

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# CSS POSITIONING

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# THE POSITION PROPERTY

POSITION: FIXED;

# THE POSITION PROPERTY

THE POSITION PROPERTY SPECIFIES A WAY FOR AN ELEMENT TO POSITION ITSELF WITH REGARD TO THE BROWSER WINDOW, THE PARENT ELEMENT, OR RELATIVE TO SIBLING ELEMENTS.

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# POSITION: STATIC

Render the element relative to its neighbor with no offset

- The default setting (so you never need to declare this in CSS)

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# POSITION: FIXED

Sets the element to be rendered at a fixed location in the browser window, regardless of page scrolling

- top, left, bottom, and right properties tell the element where to position itself in the browser window

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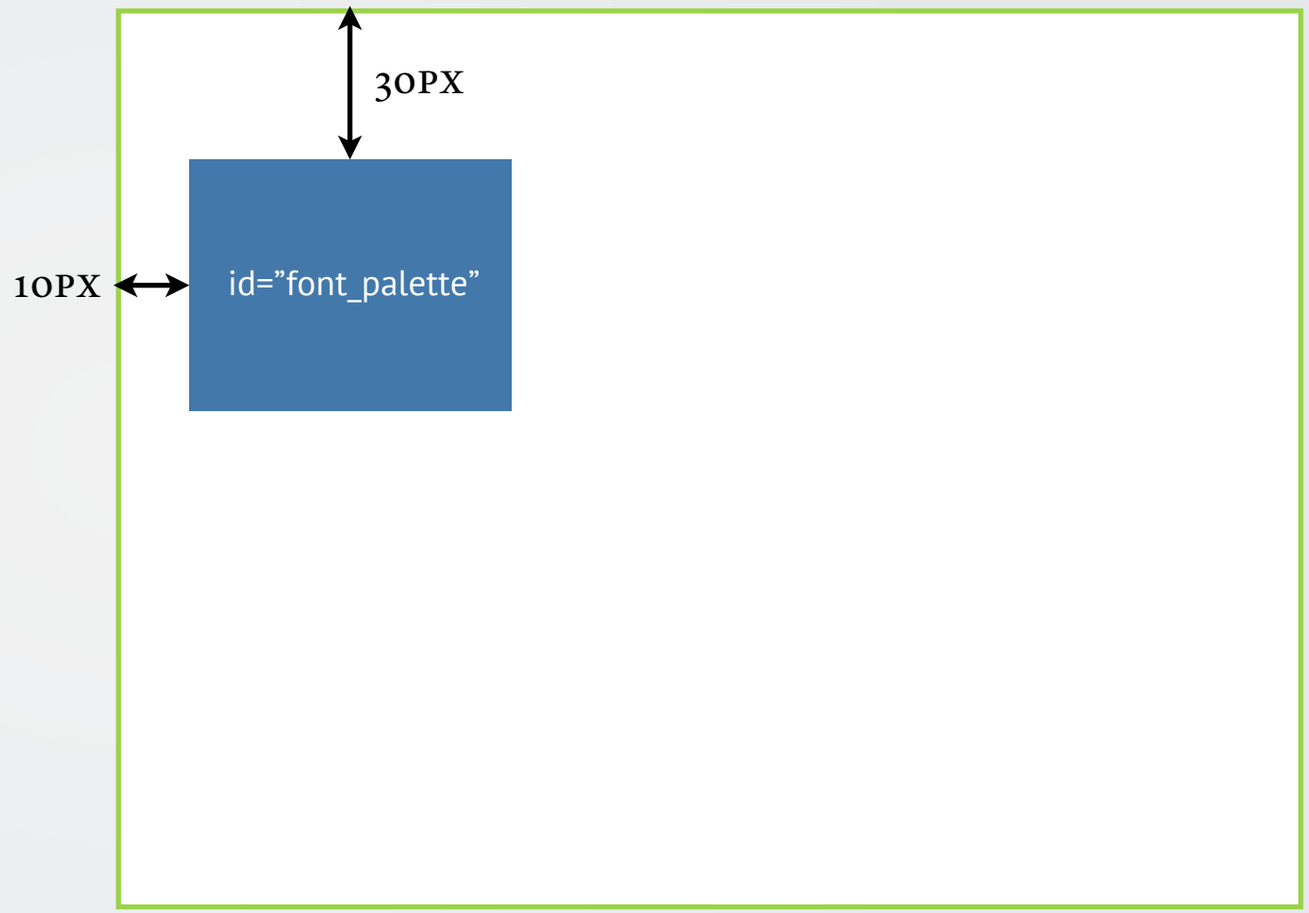
# POSITION: FIXED

```
2  #font_palette {
3      position: fixed;
4      top: 30px;
5      left: 10px;
6  }
```

Take the element with `id=”font_palette”` and render it 30px from the top of the window and 10px from the left of the window

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# POSITION: ABSOLUTE

Sets the element to be rendered at a specific location in the parent element

- top, left, bottom, and right properties tell the element where to position itself in the parent element

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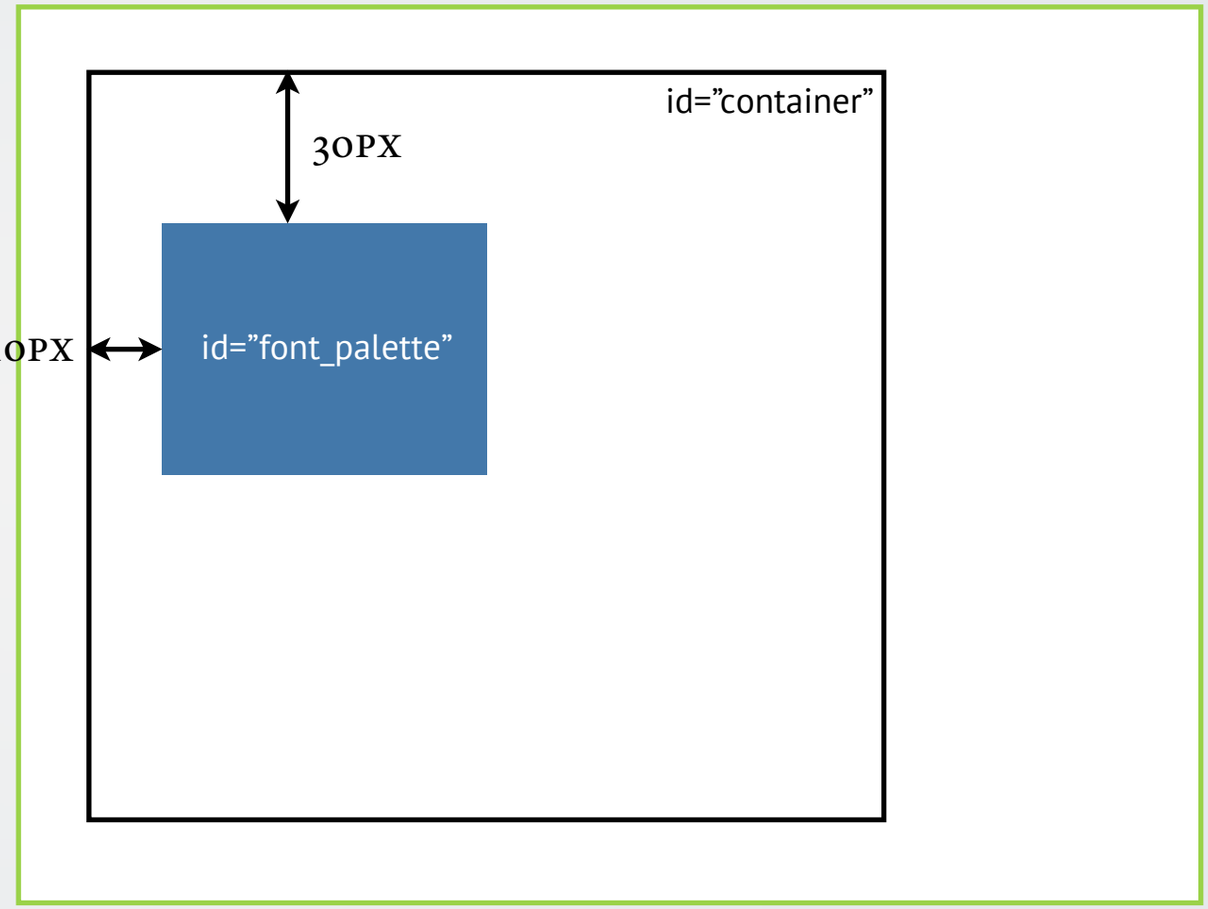
# POSITION: ABSOLUTE

```
2  #container #font_palette {
3      position: absolute;
4      top: 30px;
5      left: 10px;
6  }
```

Take the element with `id=”font_palette”` and render it 30px from the top and 10px from the left of its parent (id=”container”)




YOUR BROWSER WINDOW

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# POSITION: RELATIVE

Tells the element how to position itself relative to neighboring sibling elements (i.e. elements with the same parent)

- top, left, bottom, and right properties tell the element where to position itself relative to where it would normally be

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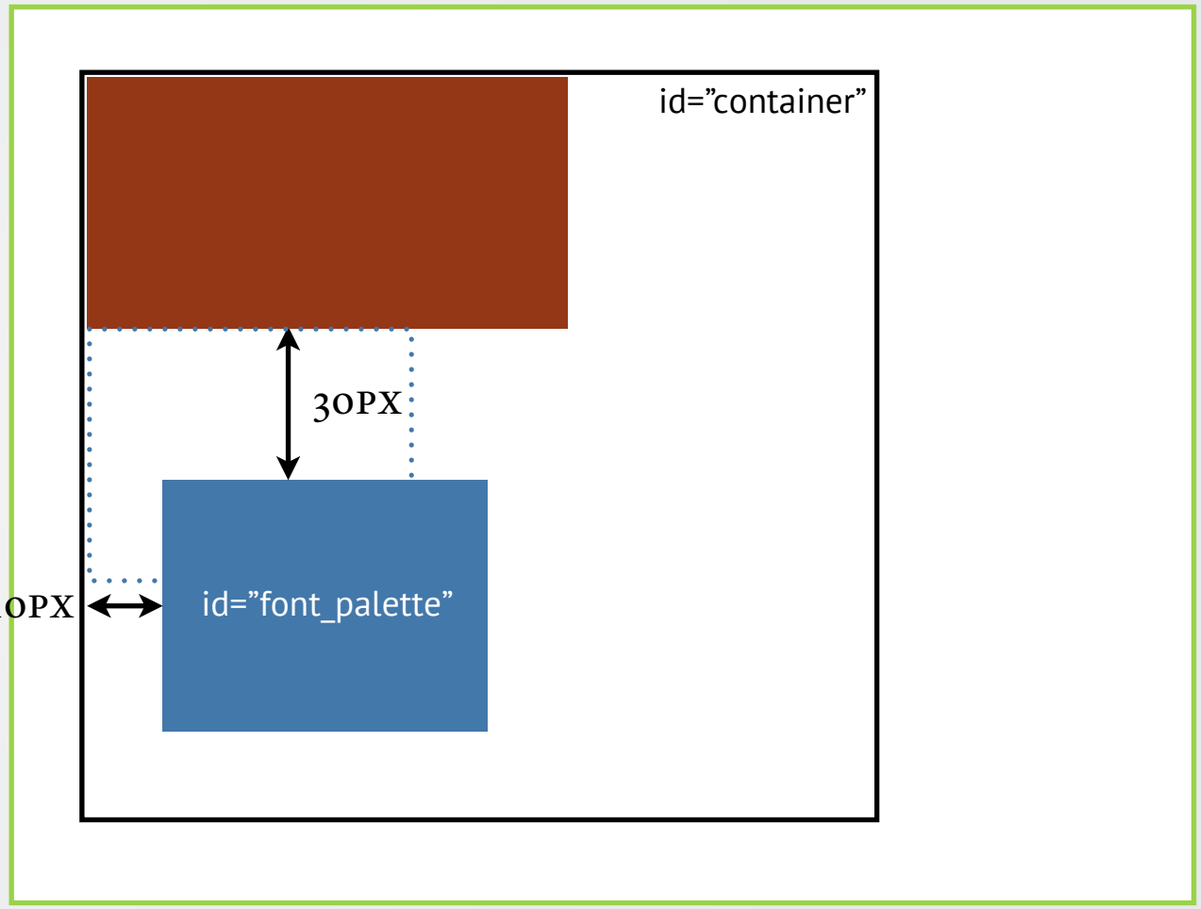
# POSITION: ABSOLUTE

```
2  #font_palette {
3      position: relative;
4      top: 30px;
5      left: 10px;
6  }
```

Take the element with `id=”font_palette”` and render it 30px from the top and 10px from the left of where it would normally be

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# THE FLOAT PROPERTY

FLOAT: LEFT;

# THE FLOAT PROPERTY

Causes element to ‘float’ toward one side of its parent

- Four values: left, right, none, and inherit
- IMPORTANT: the width of the element collapses to only the needed width of the content (think *inline*!)
- Multiple floated siblings will line up side by side

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# THE FLOAT PROPERTY

- `float: left;`
  - Causes an element to move as far to the left as it can within the parent element, allowing other elements to wrap around it

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# THE FLOAT PROPERTY

- `float: left;`
  - Causes an element to move as far to the left as it can within the parent element, allowing other elements to wrap around it
- ~~POP QUIZ~~

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# THE FLOAT PROPERTY

- `float: left;`
  - Causes an element to move as far to the left as it can within the parent element, allowing other elements to wrap around it
- ~~POP QUIZ~~
  - 1. What does `float: none;` do?

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# THE FLOAT PROPERTY

- `float: left;`
  - Causes an element to move as far to the left as it can within the parent element, allowing other elements to wrap around it
- ~~POP QUIZ~~
  - 1. What does `float: none;` do?
  - 2. What does `float: right;` do?

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# THE FLOAT PROPERTY

- `float: left;`
  - Causes an element to move as far to the left as it can within the parent element, allowing other elements to wrap around it
- ~~POP QUIZ~~
  - 1. What does `float: none;` do?
  - 2. What does `float: right;` do?
  - 3. (EXTRA CREDIT) What does `float: inherit;` do?

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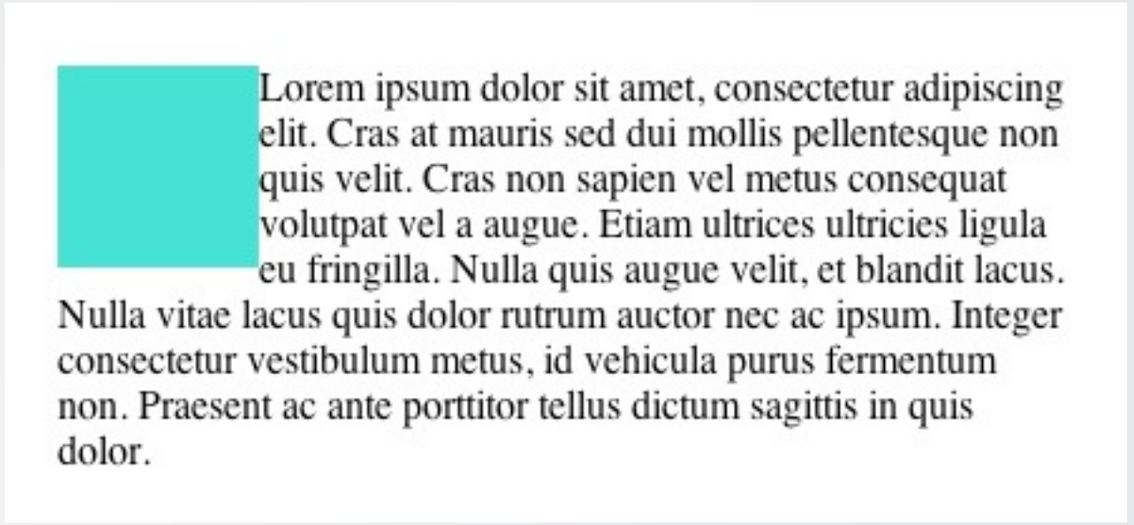
# FLOAT: LEFT;

```
.floatleft {
   display: block;
   float: left;
   width: 75px;
   height: 75px;
   background: turquoise;
}


<p>
   <span class="floatleft"></span>
   Lorem ipsum dolor sit amet,
   consectetur adipiscing elit ...
</p>
```

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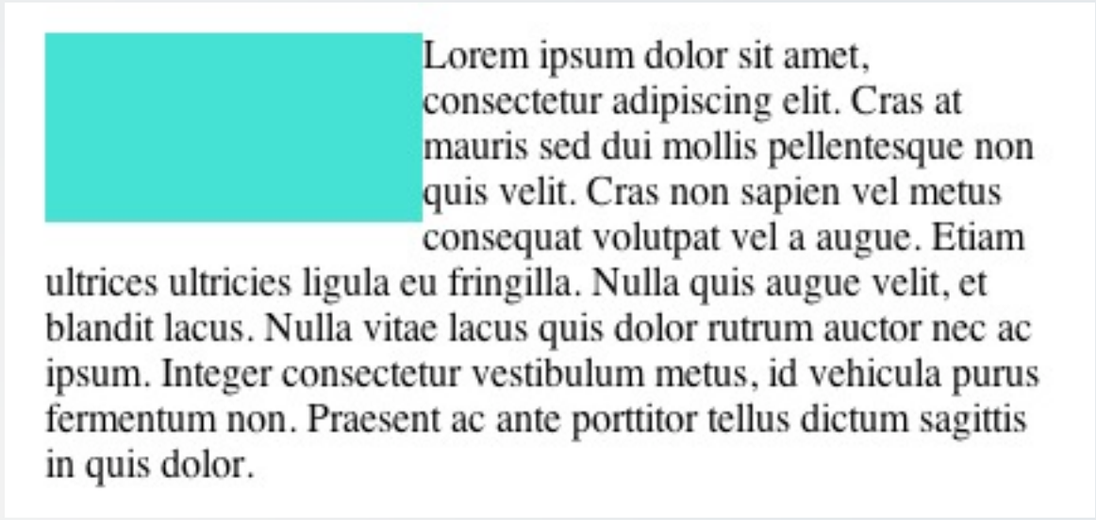
# FLOAT: LEFT;

```
.floatleft {
   display: block;
   float: left;
   width: 75px;
   height: 75px;
   background: turquoise;
}


<p>
   <span class="floatleft"></span>
   <span class="floatleft"></span>
   Lorem ipsum dolor sit amet,
   consectetur adipiscing elit ...
</p>
```




Note how the two boxes “float” next to each other, with no spacing between them.

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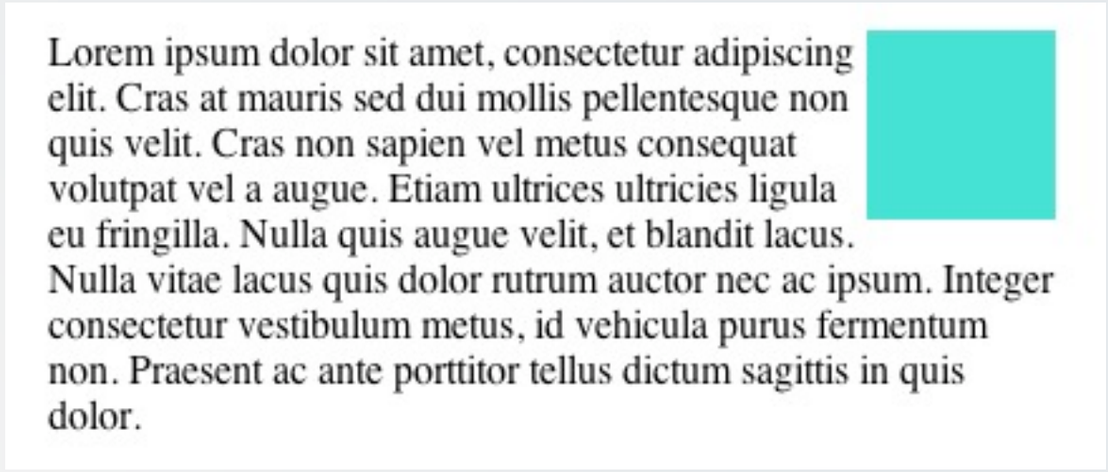
# FLOAT: RIGHT;

```
.floatright {
   display: block;
   float: right;
   width: 75px;
   height: 75px;
   background: turquoise;
}

<p>
   <span class="floatright"></span>
   Lorem ipsum dolor sit amet,
   consectetur adipiscing elit ...
</p>
```

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# THE CLEAR PROPERTY

- Causes an element to drop below any floated objects that match its value
  - 5 values: left, right, both, none, inherit
  - e.g. `clear: left;` will drop below elements with `float: left;` (but not those with `float: right;`), while `clear: both;` will drop below all floated elements

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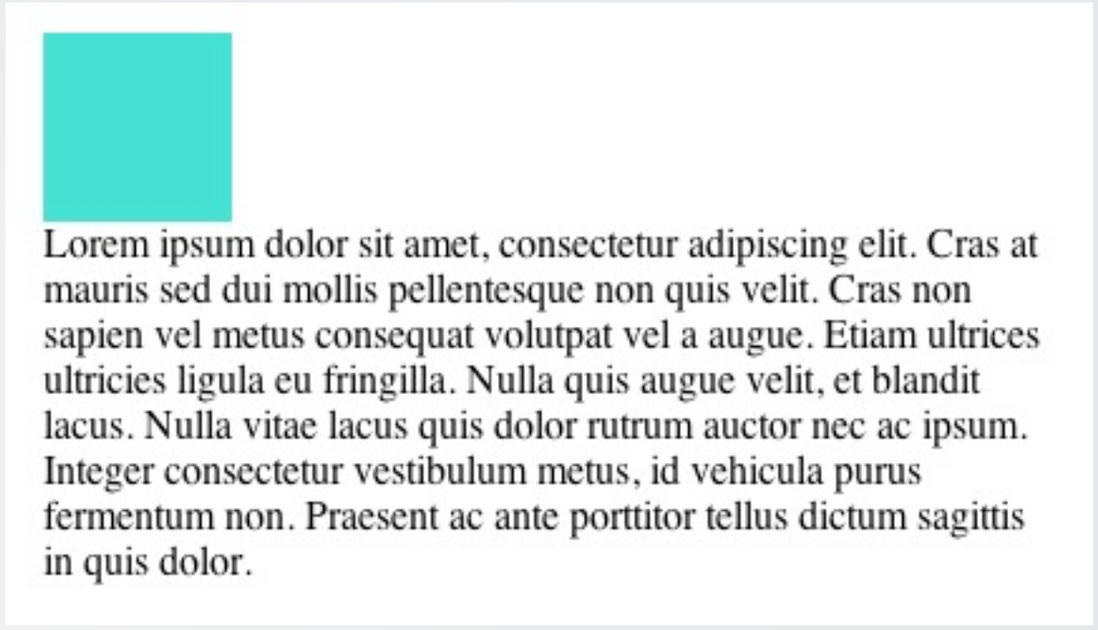
# CLEAR: BOTH;

```
.floatleft {
   display: block;
   float: left;
   width: 75px;
   height: 75px;
   background: turquoise;
}
p { clear: both; }
```




```
<div>
   <span class="floatleft"></span>
   <p>Lorem ipsum dolor sit amet,
   consectetur adipiscing
   elit ...</p>
</div>
```

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# PSEUDO-CLASSES

A:HOVER {COLOR:GREEN;}

# WHAT ARE PSEUDO-CLASSES?

*"Pseudo-classes are modifiers attached to selectors. They specify a state of or a relation to the element being selected. We use them as shown here:*

```
selector:pseudo-class {
    property: value;
}
```

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# LINKS

Probably the most common use for a pseudo-class

- `a:visited`
  - Styling applied to links that have been visited by the user
- `a:hover`
  - Styling applied while the mouse is hovered over the link
- `a:active`
  - Styling applied while the user's mouse button is pressed down on the link
- Order matters! Always apply your CSS styles in this order: a, a:visited, a:hover, a:active

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# OTHER USES FOR PSEUDO-CLASSES

- Styling forms
  - We'll learn about these soon!
- Very basic logical relations
  - :first-letter, :first-line, etc.
- CSS hacks
  - Some specific and often used techniques (e.g. a navigation bar whose height always equals the height of its list items) are easiest implemented with the help of pseudo-classes

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# ADMIN

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- Coding Homework
  - Big assignment this week (we'll go over it quickly now)
  - Upload it to CloudChill.in as hw2_your_name
  - Send me the url, so I know it's final
  - More details in the wrap up email
- There will be more Oscars

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- Office Hours
  - Paul Fletcher-Hill (TBA)
  - Brandon Jackson (TBA)
  - Rafi Khan (Thursday 8pm - 10pm)
  - Zack Reneau-Wedeen (Monday 3pm - 5pm)
  - Location TBA in the wrap-up email

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- Support Groups
  - Small groups you can direct questions to
  - More on that to come

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- Workshops
  - Join the mailing list
  - Stay tuned (should be some news this week)!

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# THANKS!

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QUESTIONS EVEN GOOGLE CANT ANSWER?

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