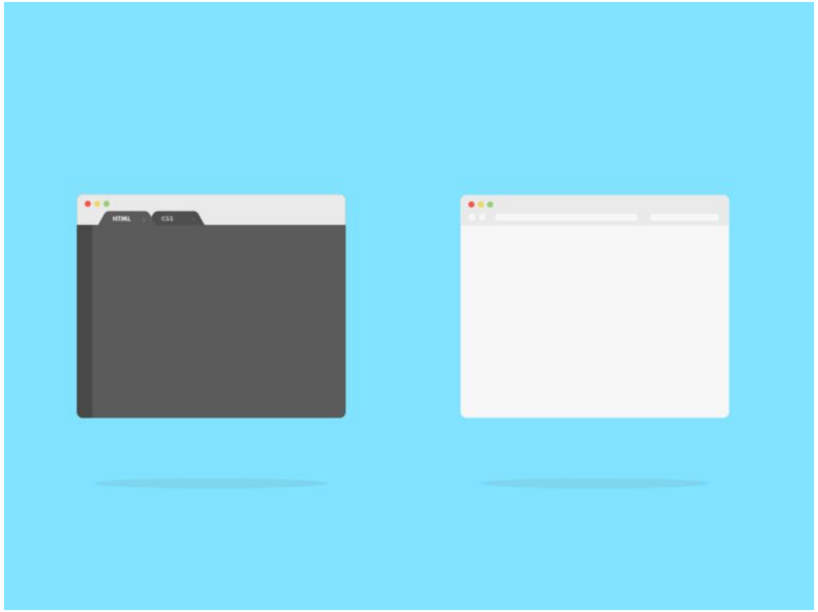
CSS

Making HTML beautiful again

Find this presentation at:
http://bit.do/meet_yl17_s02_p

Today

- Some more HTML
- Code\design separation
- CSS

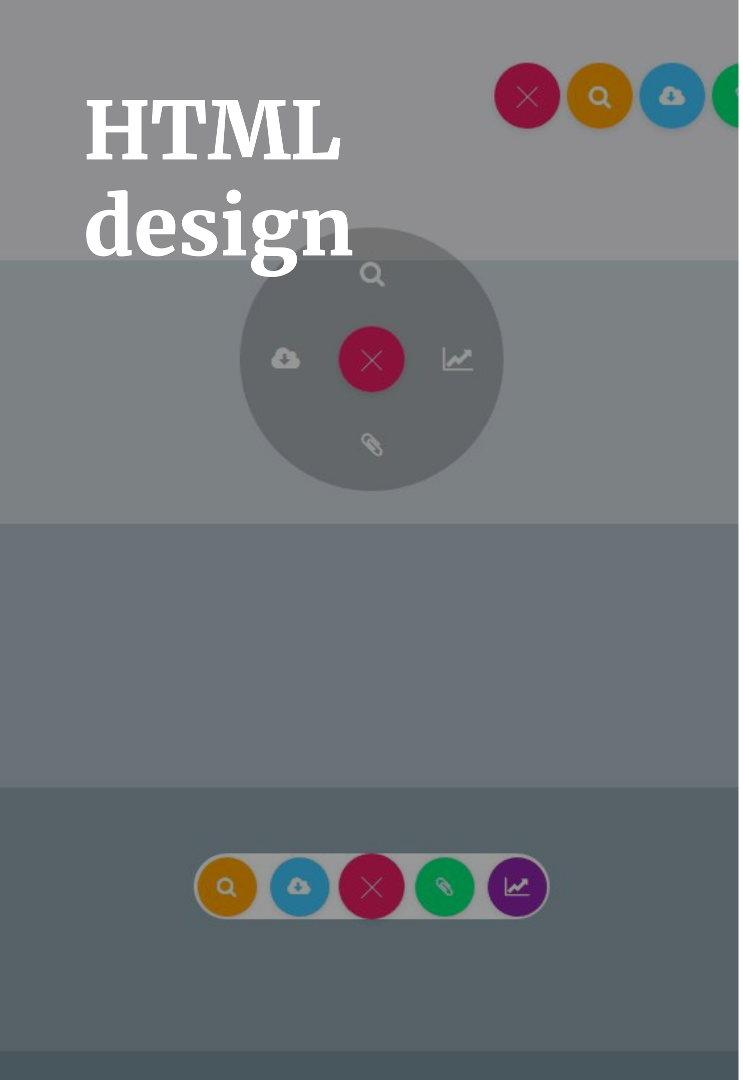


***reminder** : master GIT, start working on your website*

Reminder – HTML

- Using HTML we define the content of our pages - Titles, paragraphs, images, links, tables, lists etc.
- Using HTML we can define what will be shown. However we do not define how should it be shown (is the text centered? How big is the font? What is the background color? etc.)

- So, how do we define how the HTML should look?



HTML design

- We *could* use some tags to design the HTML:
  - em - emphasize
  - font - change font size, color family
  - i - italics
  - Many more
- However this is considered a bad style
- Ideally - we wish to separate content and appearance - why?

Separate content and appearance

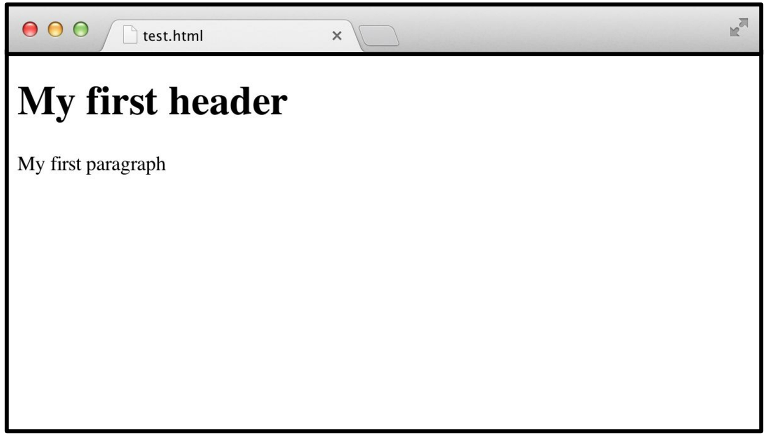
- **Division of labor** (and talent) - Let coders code and designers design.
- **Readability** - HTML tend to be messy and it may be hard to dig in them to understand where is the design specification
- **Modularity** - if you don’t like how your page looks, you need not change your html but only its design.
    - See example: the same page with multiple designs

CSS

- Cascading Style Sheets **(CSS)** - is the language of design.
- It allows you to **specify how elements in the HTML should look**
- CSS may be applied to HTML as:
    - a code which is linked to the HTML in its <head>
    - a separate file which is added to the HTML in its <head>
        - An HTML could include multiple CSS

HTML

```html
<!DOCTYPE html>
<html>
    <head>
    </head>
    <body>
        <h1>My first header</h1>
        <p>My first paragraph</p>
    </body>
</html>
```

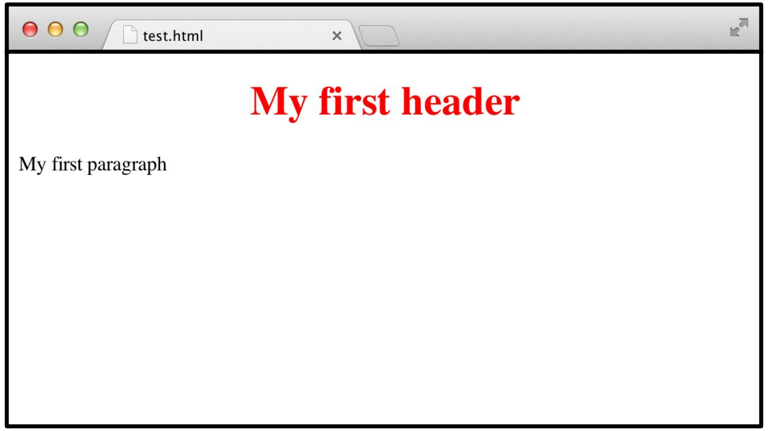


My first header

My first paragraph

HTML + CSS

```
<!DOCTYPE html>
<html>
    <head>
        <style>
        h1 {color:red; text-align:center;}
        </style>
    </head>
    <body>
        <h1>My first header</h1>
        <p>My first paragraph</p>
    </body>
</html>
```



My first header

My first paragraph

HTML + CSS

Css is put inside the head

```
<head>
    <style>
        h1 {color:red; text-align:center;}
    </style>
</head>
```

HTML + CSS

```
<head>
    <style>
        h1 {color:red; text-align:center;}
    </style>
</head>
```

selector { property : value; }

Who should be changed?

What should be changed?

How should it be changed?

LAB – 1

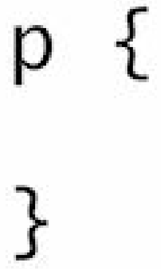
Do the **first section** of the lab:

http://bit.do/meet_yl17_s02_e

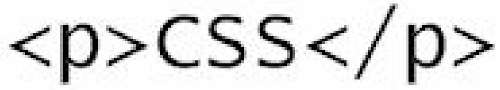
CSS Cheatsheet

CSS on its own file

- So we can use CSS inside the head to set how things look.
- However, it is preferable to put CSS in external file:
    - More organized
    - Could be used by multiple HTMLs



```
p {

}
```



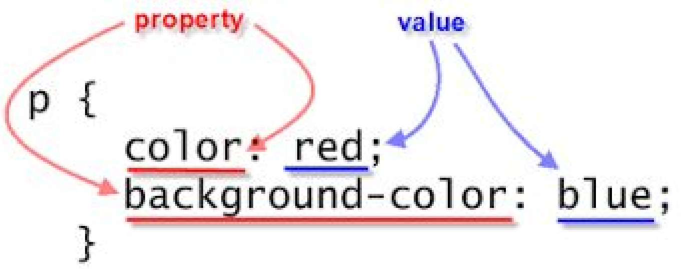
```
<p>CSS</p>
```

HTML & CSS

This tells the HTML that when it loads, it should refer to the file “my_style.css” to define its appearance.

```
<html>

<head>

   <title>Page title</title>

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

</head>

<body>

   HTML body

</body>

</html>
```

CSS file structure



```
p {
   color: red;
   background-color: blue;
 }
```

- Exactly like the code in the HTML’s `<style>`, specify selectors, properties and values in a file with CSS suffix.
- It’s polite to specify **one property per line**.

LAB - 2

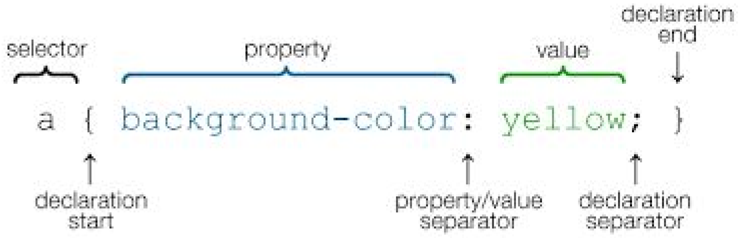
Do the **second section** of the lab:

http://bit.do/meet_yl17_s02_e

CSS Cheatsheet

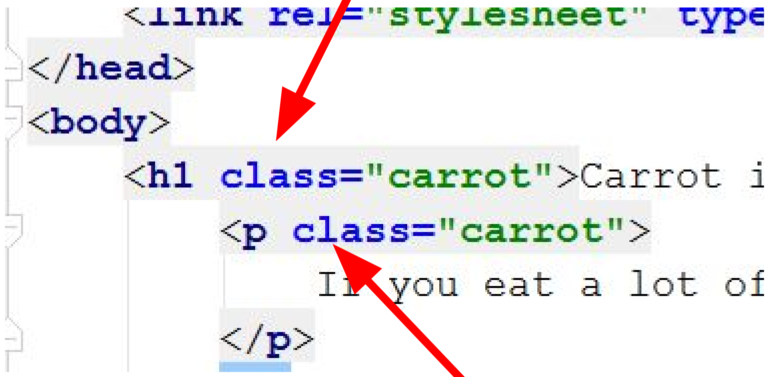
CSS selectors

- We use a **selector** to specify which elements should be stylized.
- However, with our current tools we must always select *all* the tags of the same type.
  - But what if we want, for example, to apply different style to the different paragraphs?

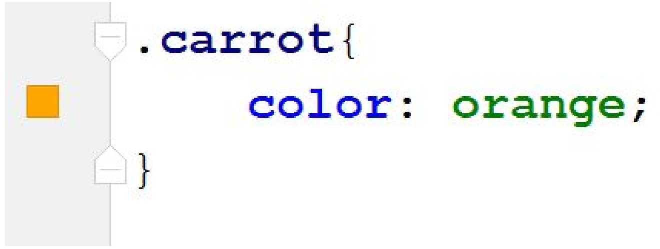


Advanced CSS selectors – class

- The `class` attribute can be added to any html element.
  - Multiple elements may have the same class (to group elements that has the same style).
- To select a specific class with css we use a dot and then the name of the class:
  - `.class_name`



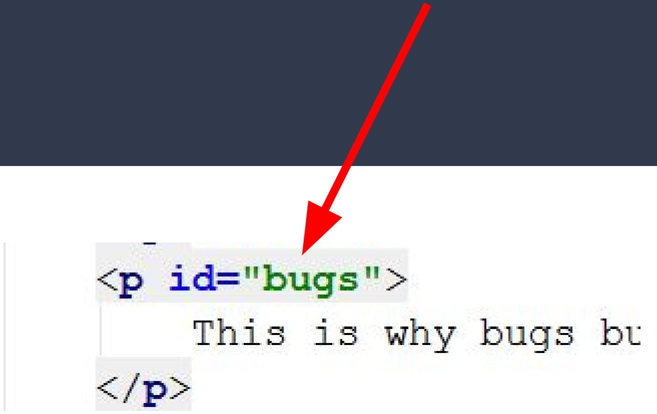
```
    <link rel="stylesheet" type
</head>
<body>
    <h1 class="carrot">Carrot i
        <p class="carrot">
            If you eat a lot of
        </p>
```



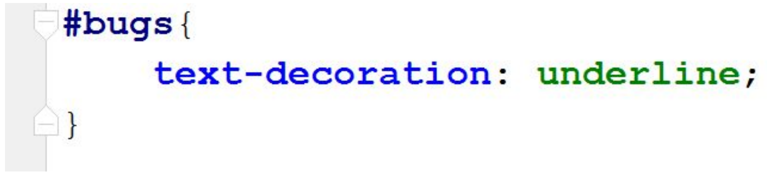
```
.carrot{
    color: orange;
}
```

Advanced CSS selectors – id

- The `id` attribute can be added to any html element.
  - An id is unique - only one element may have a specific id.
- To select a specific class with css we use a hashtag and then the name of the class:
  - `#id`



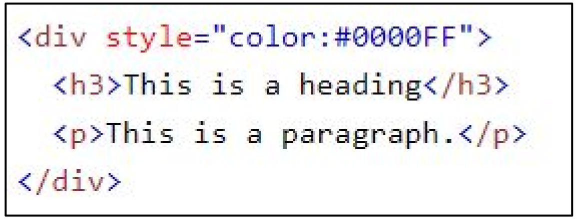
```
<p id="bugs">
    This is why bugs bu
</p>
```



```
#bugs{
    text-decoration: underline;
}
```

Arranging your HTML with DIVs

- Sometimes, we want to group together multiple HTML units
  - To make the HTML more organized
  - To give them a specific design
- We can achieve that by defining divisions (sections) using the `<div>` tag.
- When we style a div, the style will be applied to all its content.



```
<div style="color:#0000FF">
  <h3>This is a heading</h3>
  <p>This is a paragraph.</p>
</div>
```

LAB – 3

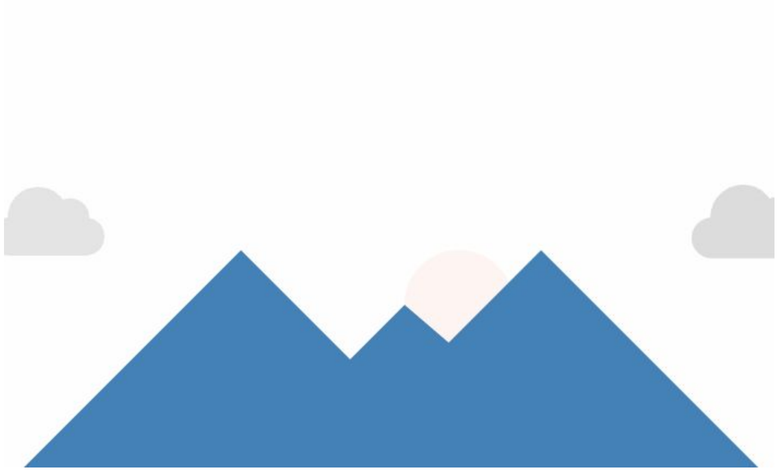
Do the **third section** of the lab:

http://bit.do/meet_yl17_s02_e

CSS Cheatsheet

CSS animation

- CSS let's us define custom animations.
- Inside a `@keyframes` block, define the state before and after and then apply it using the `animation-name` property.



```
/* The animation code */
@keyframes example {
     from {background-color: red;}
     to {background-color: yellow;}
}

/* The element to apply the animation to
*/
div {
     width: 100px;
     height: 100px;
     background-color: red;
     animation-name: example;
     animation-duration: 4s;
}
```

Conditional CSS

- We can set CSS features **when something happens** on the page. For example - when the mouse ***hovers*** over a specific element we may change its appearance.
- This is implemented using the special sellector `other_selector :hover`
- For example:

```
a:hover {
    background-color: yellow;
}
```

Now implement all this to your website and make it **beautiful**

Advanced reading:

- CSS Cheatsheet
- Use animations to move things on the screen
- Move them with different effects
- Change simple features on hover
- Create dropdown lists
- Hide and show text
- Pretty animations example
- Awesome hover effects