Intro to HTML & CSS

Intro to Web Development

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What are we going to cover ?

Intro to HTML

Intro to CSS

What's new in HTML5

What's New in CSS3

Designing a personal RB site

Uploading it to your webspace

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H T M L

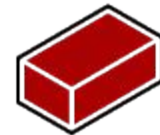Hyper　　Text　　Markup　　Language

C S S

Cascading　Style　Sheets

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Rules of HTML

- Html is comprised of tags
  - \<tag>
- Tags that are opened must be closed
  - \<tag> \</tag>
- Some tags self close
  - \
- Tags can contain attributes
  - \<tag attribute="MyAttribute">\</tag>
- Tags can Contain other tags
  - \<tag attribute="MyAttribute"> \<tag>\</tag> \</tag>
- Just because it doesn't throw an error doesn't mean it's right!

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Intro(Boilerplate) Tags

- <!DOCTYPE HTML> *Informs the Browser of the HTML version*
- *<html> the start of the HTML document*
- *<head> Stores Metadata about a page*
- *<body> Everything in this block is rendered to the browser's view port.*

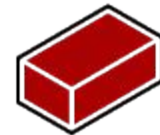Redbrick

<head>

<title> The title of the web page

<link> Used to Link external files into HTML (Usually CSS files)

<meta> Used to describe metadata on a HTML page

<script> used to add JavaScript functionality to the site

    <script> tags can be placed in the body tag.

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\<body>

- \<h1> --> \<h6> Heading tags h1 being the largest h6 being the smallest
- \<p> Paragraph tags normal sized text
- \<pre> Preformatted Paragraph
- \<div> Containers for tags (blocking)
- \<span> Container for tags (inline)
- \<a> Links to other webpage's
- \<hr> horizontal rule
- \<img> image

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Demo Usage

<div>

    <h1>Hello World</h1>

    <p> This is a pretty good site :)</p>

    Link to RB

    <hr>

</div>

- Some tags are self closing an example of this is the <hr> tag
- <img> & <a> tags contain attributes like src

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Exercise: Hello HTML!

Lets try to put together what we just learned

So we are going to create a basic html page that says

- "Hello HTML" in a h1 tag and "Time to build a website" in a p tag
- The page must have a title
- create multiple paragraphs of text using multiple p tags.

Bonus Round

- Create a link to http://www.redbrick.dcu.ie/
- Put a cool image on the page

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TIME TO CODE

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Intro to CSS

- So we've covered the basics structuring a HTML document.
  - Time to style it :D
- Let's create a folder called "css" to store our css files.
  - inside that lets create a file called master.css
- Let's add a stylesheet to our page
  - <link rel="stylesheet" href="/css/master.css">
- Don't make stuff look like this
  - http://www.twwwe.com/
- People make puns with css
  - http://saijogeorge.com/css-puns/

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Selectors

- First thing we need to know is what tag/s we are applying our css to.
- To do this we give css a target
- A good example is:

body {

    //Attributes go here;

}

This targets the body tag and allows us to style it. Sub-tags inherit styles

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Selectors (cont)

This will apply this style to all the body tags in your document.

- This works great but only when one of a specific type of tag
  - (so basically never.)
  - A good example of where this fails is with the div tag which as websites get more complicated will become more numerous
- Look at your previous exercise.
  - How would the browser know to style one p tag one way and another p tag another way?
- There are tonnes of useful selectors supported in CSS
  - http://code.tutsplus.com/tutorials/the-30-css-selectors-you-must-memorize--net-16048

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HTML selector Attributes

If you recall earlier in the presentation we talked about HTML tag attributes
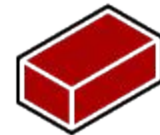
<div attributes="myAttribute">

We are going to talk about two target attributes and use them to target specific tags in our HTML document.

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#id vs .class

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#id

- Id's are the first targeting attribute

<div id="myID"></div>

- This creates a target called #myID that can be referenced in CSS

```
#myID{
    color : "red";
}
```

- Id's are meant to be used as once off targets.
  - **No two tags should share the same id.**
    - Remember just because it will work doesn't mean it's right!

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.class

Class is a touch more flexible than ID

<div class="myClass"></div>

- This creates a target called .myClass that can be referenced in CSS.
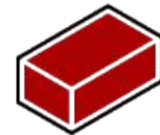   - This works exactly the same as id in this regard.

.myClass{

    color: "red";

}

- Classes are to be used when multiple tags need the same style
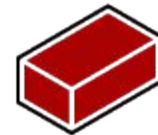
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When in doubt use a class

CSS Properties

So in our previous slides I showed you a sample CSS property.

- color :#000000 //Color text black
- width: 250px; // Sets element width to 250 pixels
- height: 100%; // sets height to 100% of available height
- margin: 20px; // adds 20px gap between element and others
- background: #FFFFFF; //sets background of element to white.

- For a Full list of properties you can use
  - http://www.w3schools.com/cssref/default.asp

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The New Wave

- HTML5
  - Discussion points on new features and why they are awesome
  - <canvas> https://nodegarden.js.org/
  - <video>
  - <audio>
  - <nav>
- CSS3
  - Media Selectors.
  - Masking
  - Animations
  - More awesome selectors

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Exercise: Personal Site

- Let's Build a personal site to show people how awesome your HTML and CSS skills are.
  - http://www.redbrick.dcu.ie/~voy/
- Style the page through an external css file.
- Add some text about yourself and a link to your favorite website/social media profile.
- Place an image of yourself on the page.

Bonus Round

- Find a new HTML5 Tag / CSS3 attribute and try them out
  - http://www.w3schools.com/css/css3_intro.asp
  - http://www.w3schools.com/html/html5_new_elements.asp

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Offload to Helpdesk for uploading to webspace ;)

- Linux & Mac Users:
  - rsync -val path/to/yourfiles yourname@redbrick.dcu.ie:~/public_html/
- Windows Users:
  - FTP Client/WinSCP:
    - Protocol: SFTP
    - Host: redbrick.dcu.ie
    - Port: 22
    - Drag your files to "public_html"
- Helpdesk are on standby if you have trouble!

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Working FOSS

Redbrick is currently in the process of open sourcing its front end/backend.

- If you want to sharpen your HTML CSS & JavaScript skills you can
- You'll also get an intro to tools like Git
  - Really useful for working in team projects.
  - You'll actually use in a code producing context
  - Turns out git is valuable to know
    - http://www.mnu.edu/business/software-skills-demand