

# Day 2

## HTML and CSS

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# HTML and CSS

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**Today we will...**

- i. Develop a webpage**
- ii. Begin using CSS**

**HTML** (the Hypertext Markup Language)

and **CSS** (Cascading Style Sheets) are two of the core technologies for building Web pages.



# Exercise 1...

## • Setup

### Step 1: Open Notepad (PC)

#### **Windows 8 or later:**

Open the **Start Screen** (the window symbol at the bottom left on your screen). Type **Notepad**.

#### **Windows 7 or earlier:**

Open **Start > Programs > Accessories > Notepad**

### Step 1: Open TextEdit (Mac)

Open **Finder > Applications > TextEdit**

Also change some preferences to get the application to save files correctly. In **Preferences > Format >** choose "**Plain Text**"

Then under "Open and Save", check the box that says "Display HTML files as HTML code instead of formatted text".

**Then open a new document to place the code.**

## Exercise 1...

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- **Create a webpage with different features**
  - Title
  - Heading
  - Paragraph
  - Loading pictures
  - Load link
  - Table
  - Lists



## **HTML = Structure**

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- **The page should contain the following:**
  - ✓ a title
  - ✓ an introduction
  - ✓ course details
  - ✓ contact details
  - ✓ and a list of links
- **HTML allows us to build this structure and we can give it a style later**

## HTML tags to use

- You'll need to use the tags talked about in Monday's lecture e.g.:
  - Title: `<title>...</title>`
  - Header tags: `<h1>...</h4>`
  - Lists: `<ol>...</ol>`, `<ul>...</ul>`, `<li>...</li>`
  - Paragraphs: `<p>...</p>`
  - Hyperlinks: `<a>...</a>`.



# HTML tags to use

```
<!DOCTYPE html>
<html>
<head>
<title>Homepage</title>
</head>
<body>

<h1>Welcome to Maynooth University</h1>
<p>End User Computing.</p>

</body>
</html>|
```

# HTML tags to use

- Multiple Headings

```
<h1>This is heading 1</h1>  
<h2>This is heading 2</h2>  
<h3>This is heading 3</h3>
```



# HTML tags to use

- Paragraphs

```
<!DOCTYPE html>  
<html>  
<body>  
  
<p>This is a sample paragraph.</p>  
<p>This is another sample paragraph.</p>  
  
</body>  
</html>
```

# HTML tags to use

- Inserting Image

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Images</h2>
<p>HTML images are defined with the img tag:</p>



</body>
</html>
|
```



## HTML tags to use

- Changing Line using BR

```
<!DOCTYPE html>
<html>
<body>

<p>I am good <br> and I am happy.</p>

</body>
</html>
```

# HTML tags to use

- Texts with different font colours

```
<!DOCTYPE html>
<html>
<body>

<p>I am normal</p>
<p style="color:red;">I am red</p>
<p style="color:blue;">I am blue</p>
<p style="font-size:50px;">I am big</p>

</body>
</html>
```



# HTML tags to use

- Background Color

```
<!DOCTYPE html>
<html>
<body>

<h1 style="background-color:red;">Sample 1 </h1>
<p style="background-color:green;">Sample 2</p>

</body>
</html>
```

# HTML tags to use

## • Tables

```
<html>
<body>

<h2>Basic HTML Table</h2>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```



# HTML tags to use

## • List

```
<!DOCTYPE html>
<html>
<body>

<h2>An Unordered HTML List</h2>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

<h2>An Ordered HTML List</h2>

<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

## **Styling webpages**

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- **Use Cascading Stylesheets (CSS)**
- **Specify the style of any HTML element**
- **CSS is quite easy to read and understand**



# Styling webpages

- Add a CSS file and connect with HTML.

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="mystyle.css">
</head>
<body>

<h1>This is the Home Page</h1>
<p>Trying to Connect with CSS file</p>

</body>
</html>
|
```

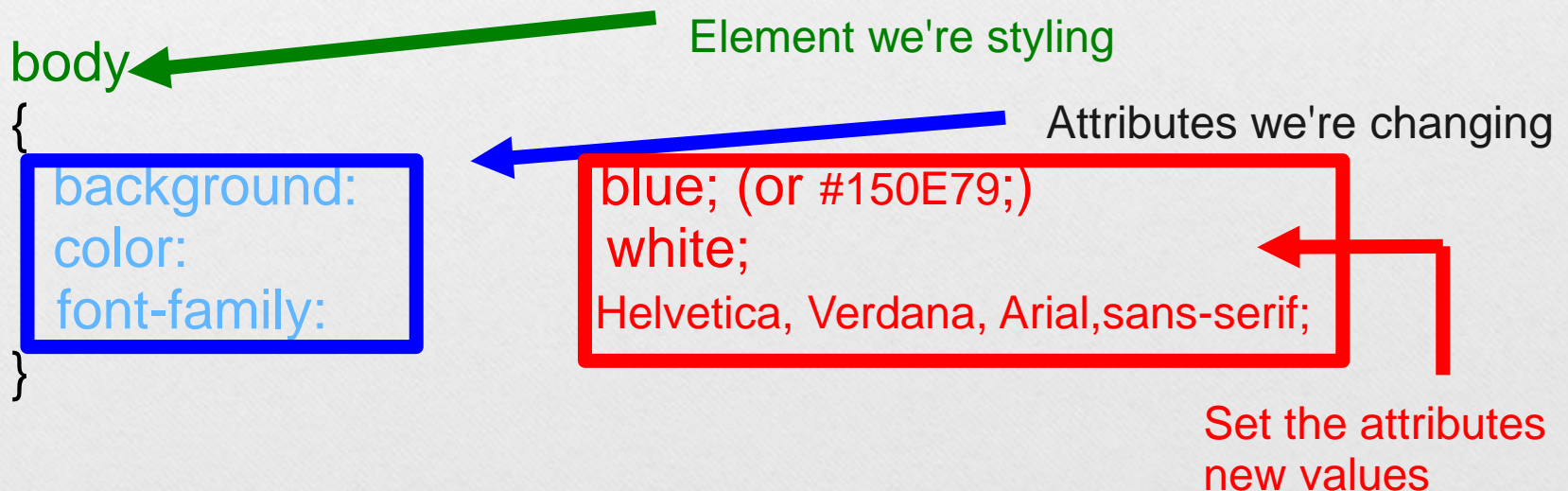
"mystyle.css"

```
body {
    background-color: lightblue;
}

h1 {
    color: navy;
    margin-left: 20px;
}
```

## Example 1: Background and font colour

- The body tags contain the information displayed in the browser window
- Lets say you want to change the background to blue and the font colour to white...
- In a CSS file we can choose the element we want to style, body, and give it's attributes, background and color a new value:





## Linking to a CSS file

- All the CSS code should go into a file, which is usually called style.css.
- You need to add a tag to your HTML with an attribute that will tell the HTML you are using a style file

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

- This should be put inside the head tags in the HTML

```
<head>
```

```
...
```

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

```
...
```

```
</head>
```

## Header tag

- Lets try changing the header 1 tag to have a
  - background that is black
  - text colour that is dark blue
  - font that is 16px Helvetica

h1

{

background:

color:

font:

}

black;

#007;

16px Helvetica;



**Hexadecimal  
Colour Range**



# Colours

- Hexadecimal numbers have a range of 16. They run from 0-9,A-F.
- Colours in CSS can be defined using
  - a colour name (red),
  - an rgb value (rgb(255,0,0)) or
  - a hex number (#ff0000)
- With a hex number or rgb value the first two digits relate to red, the third and fourth relate to green and the last two relate to blue, i.e:
  - dark red = #ff0000
  - dark green = #00ff00
  - dark blue = #0000ff
  - white = #ffffff
  - black = #000000
- [Rapidtables Color Selector](#)

## Header 2 tag

- Lets try changing the
  - text to be centred
  - give it a border

```
h2
{
  text-align:          center;
  border:              5px  solid black;
}
```



# Hyperlinks

- Hyperlinks have many properties, such as if you have visited the link, if you are hovering over the link with a mouse.
- Lets change the links to
  - a yellow colour
  - remove the underline
  - to a blue colour if you hover over it

```
a
{
    color:          #FFFB1F;
    text-decoration: none;
}
a:hover
{
    color:          #1424FF;
}
```

On hover what  
would you add to  
get back the  
underline ?????

## Guidelines

- It is always a good idea to indent your HTML and CSS, this means lining up all the start and end tags.
- If you use HTML you found elsewhere it will be obvious, you will need this lab to be able to do the assignment.
- Two handy pages you'll need are:  
[http://www.w3schools.com/css/css\\_examples.asp](http://www.w3schools.com/css/css_examples.asp)  
[http://w3schools.com/css/css\\_reference.asp](http://w3schools.com/css/css_reference.asp)