UI Design & Evaluation

CO2104

Button To Switch CSS

Button To Switch CSS

- When you create a website you normally decide on a style (colour, font style, font size, layout, etc...).

- The user as no choice but to accept that design.

- But this is not always suitable for all users.

- Those that are colour blind or dyslexic can sometime struggle to read/see text with the choices you as a designer have made.

- So sometimes it is good to make 2 (or more) different CSS files that the user can then chose from.

- One of these options could be a high contrast version so it is easier to read (for example).
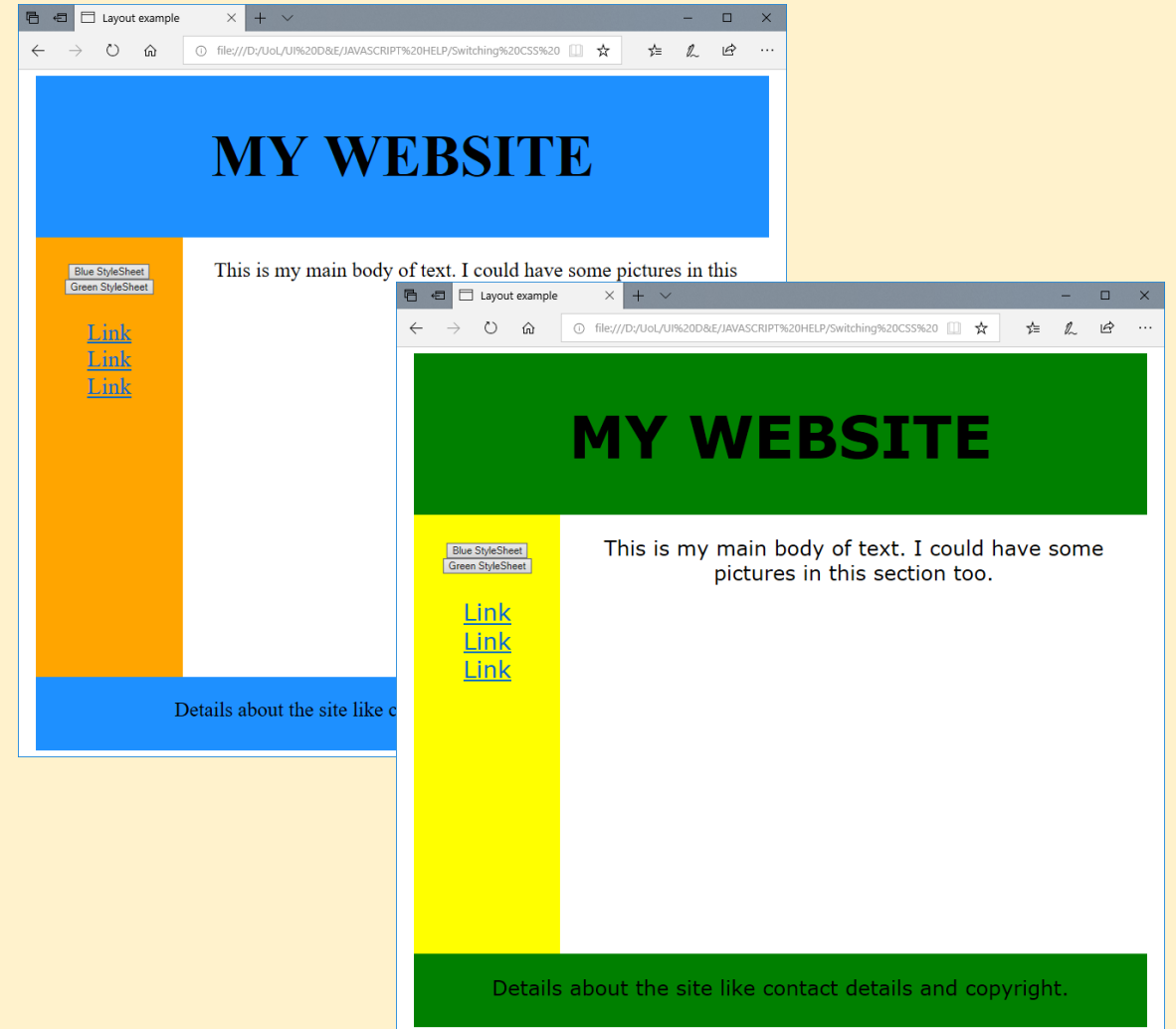
A starting point.

- For this example I will be using the template page I made in the first handout in week 7 (CSS Layout tutorial)

- This already has a CSS setup.

- But I will be making a different CSS which will change the colours and font styles.

- Then add 2 button to allow the user to switch between the styles.

A starting point.

- To start with I made a simple copy of my existing CSS file (called **MyCSS.css**) and called it **AlternativeCSS.css**.

- I then altered some of the colours and font styles in order to make it look different.
  - My example is an extreme change just so you can see the difference.

- This is the same web page but using a different CSS.

Changes to the HTML File – adding buttons

- I then had to add 2 buttons the HTML page.

- I have placed these buttons within the **linksnav** DIV class so they appear at the top of the link menu.

- You will notice each one is linked to something called **"swapStyleSheet"**, which is the name of the function I will be using in JavaScript to change the style sheets.

- Then in the brackets are the names of my different stylesheet.

- The **<br / >** is a **single line break**. This helps me put each button on a separate line.

- The **< p />** gives me a **paragraph** space.

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

</head>
<body>

<center>
<div class="container">

<div class="header">
<h1>MY WEBSITE</h1>
</div>

<div class="linksnav">
<br />
<button onclick="swapStyleSheet('MyCSS.css')">Blue StyleSheet</button>
<br />
<button onclick="swapStyleSheet('AlternativeCSS.css')">Green StyleSheet</button>
<p />

  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
</div>
```

Changes to the HTML File – alter link to my CSS files.

- The last thing you are left to alter is the link code for your CSS.

- What you should have spotted is that I have added some additional text to the link to the CSS.

- You will have noticed I have now given it an **ID**. This is because I need to reference the link to my CSS from my JavaScript.

- My **ID** for referencing my stylesheet is "**pagestyle**"

```
<DOCTYPE html>
<html>
<head>
<title> Layout example</title>

<link id="pagestyle" rel="stylesheet" type="text/css" href="MyCSS.css">

</head>
<body>
```

Now for the JavaScript

- As this is going to be only 2 lines of code I have decided to add this to the top of my HTML.

- But if you have a number of functions for a single page (like code for your menus) this would be better running from its own JavaScript file.

- This is what my code looks like.

- This will be explained on the next slide.

```html
<DOCTYPE html>
<html>
<head>
<title> Layout example</title>

<link id="pagestyle" rel="stylesheet" type="text/css" href="MyCSS.css">

<script type="text/javascript">

function swapStyleSheet(sheet){
        document.getElementById('pagestyle').setAttribute('href', sheet);
}

</script>
```
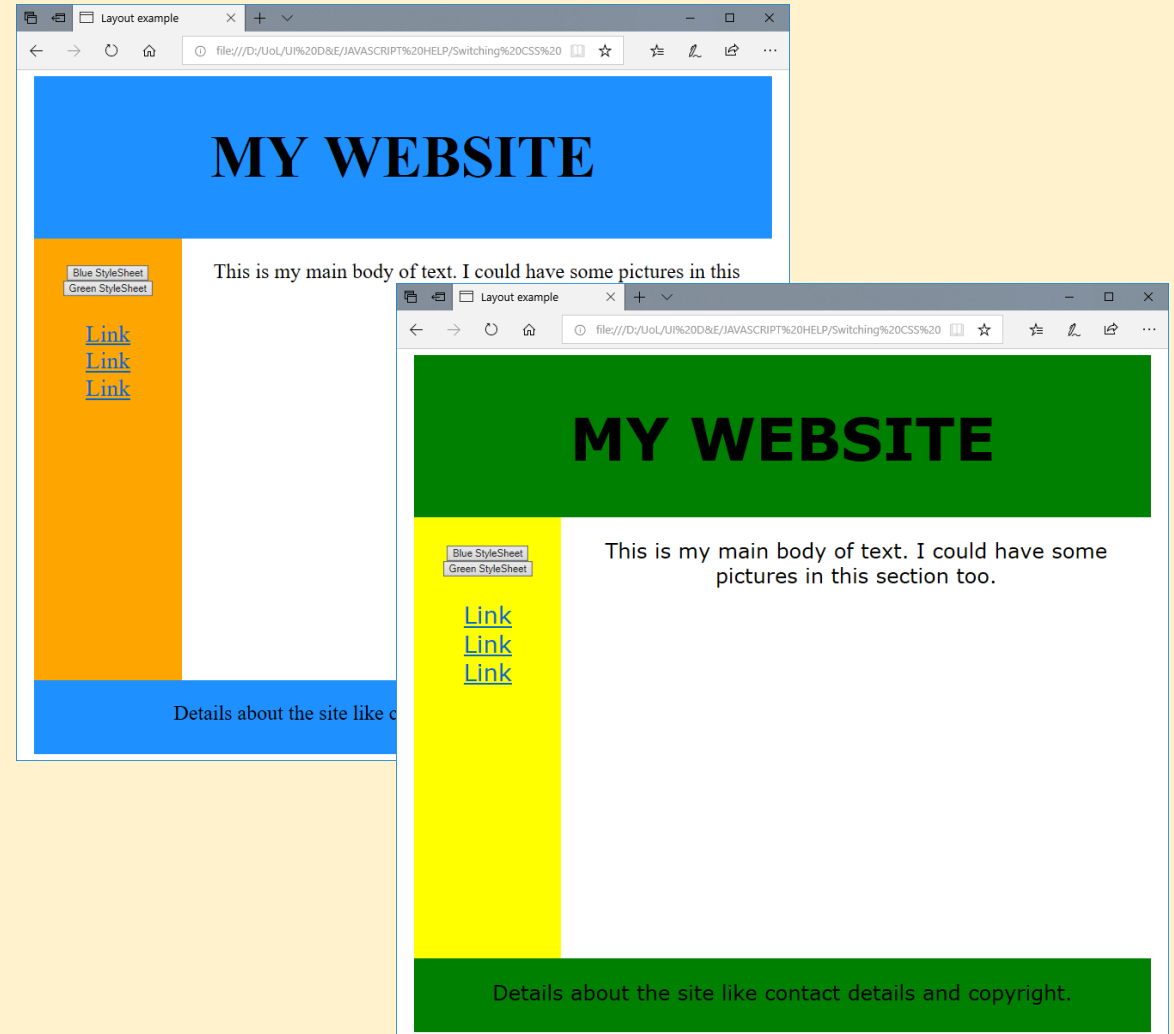
Now for the JavaScript

This is declaring the following code as **JavaScript,** and will be in a **text** format.

This is saying to select the item within the HTML with the **ID** found within the brackets (i.e. the link to the CSS)

This is setting the attributes for the this item. The attributes it is changing is the **'href'**,

The function is called **swapStyleSheet**, which we reference to in our button code in the HTML

```
<DOCTYPE html>
<html>
<head>
<title> Layout example</title>

<link id="pagestyle" rel="stylesheet" type="text/css" href="MyCSS.css">

<script type="text/javascript">

function swapStyleSheet(sheet){
        document.getElementById('pagestyle').setAttribute('href', sheet);
}

</script>
```

The sheet part is an attribute that holds the option selected from whichever button is pressed.

Now to test your code.

- You should see that when you run your HTML code you will have two buttons placed on the links navigation bar.

- When you click on each the appearance of the page changes in accordance to the CSS you have chosen.

The final code…

```html
<html>
<head>
<title> Layout example</title>

<link id="pagestyle" rel="stylesheet" type="text/css" href="MyCSS.css">

<script type="text/javascript">

function swapStyleSheet(sheet){
        document.getElementById('pagestyle').setAttribute('href', sheet);
}

</script>

</head>
<body>

<center>
<div class="container">

<div class="header">
<h1>MY WEBSITE</h1>
</div>

<div class="linksnav">
<br />
<button onclick="swapStyleSheet('MyCSS.css')">Blue StyleSheet</button>
<br />
<button onclick="swapStyleSheet('AlternativeCSS.css')">Green StyleSheet</button>
<p />

  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
</div>

<div class="mainsection">
  <p> This is my  main body of text. I could have some pictures in this section
too.</p>
</div>

<div class="footerbar">
  <p> Details about the site like contact details and copyright.</p>
</div>
</div>

</body>
</html>
```

MyCSS.css

```css
.container {
        width:1000px;
}

.header {
        width:100%;
        height:200px;
        padding: 10px 0;
        background-color:dodgerblue;
        font-weight: bold;
        font-size: 40px;
        text-align: center;
}

.linksnav {
        width:20%;
        height:600px;
        background-color:orange;
        font-size: 32px;
        text-align: center;
        float:left;
}

.mainsection {
        width:80%;
        height:600px;
        background-color:white;
        font-size: 28px;
        text-align: center;
        float:right;
}

.footerbar {
        width:100%;
        height:100px;
        background-color:dodgerblue;
        font-size:28px;
        text-align:center;
        float:left;
}
```

AlternativeCSS.css

```css
.container {
        width:1000px;
}

.header {
        width:100%;
        height:200px;
        padding: 10px 0;
        background-color:green;
        font-family:verdana;
        font-weight: bold;
        font-size: 40px;
        text-align: center;
}

.linksnav {
        width:20%;
        height:600px;
        background-color:yellow;
        font-size: 32px;
        font-family:verdana;
        text-align: center;
        float:left;
}

.mainsection {
        width:80%;
        height:600px;
        background-color:white;
        font-size: 28px;
        font-family:verdana;
        text-align: center;
        float:right;
}

.footerbar {
        width:100%;
        height:100px;
        background-color:green;
        font-size:28px;
        font-family:verdana;
        text-align:center;
        float:left;
}
```

Useful links…

- For CSS and general HTML support
  - https://www.w3schools.com/css/default.asp

- For support with HTML layout
  - https://www.tutorialspoint.com/html/html_layouts.htm

- For the options for colours you can use in HTML.
  - https://www.rapidtables.com/web/css/css-color.html#cyan