

UI Design & Evaluation

CO2104

Changing Font Size Using Buttons

Changing Font Size Using Buttons

- When you create a website you (as the designer) normally decide on the size of the text.
- This is normally decided based on how much text you have within each section of the page.
 - Or on how good it looks.
- But sometimes this could be too small for the end-user.
- Especially if they are partially sighted or struggle with dyslexia.
- What would be useful is if there is an option within the site that allows the user to alter the size of the text to match their needs.

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 (which does not need to be altered).
- But I will be adding eventually 3 buttons to the link bar that will allow me to...
 - Shrink the text.
 - Reset the text size.
 - Enlarge the text.
- This will only change the size of the text found within the main body of the site.
- This code will all be done in the HTML file



Changes to the HTML File – adding the first button

- I then need to add a button to my HTML code.
- I have placed this button within the **linksnav** DIV class, so they appear at the top of the link menu.
- You this is linked to something called “**fontSizeSmaller**”, which is the name of the function I will be using in the JavaScript to change the size of the text.
- The **
** is a **single line break**. This helps me put each button (eventually) on a separate line.
- The **< p />** gives me a **paragraph** space.

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

<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 type = "button" onclick = "fontSizeSmaller()"> Shrink Text</button>
  <p />
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
</div>

<div class="mainsection">
  <p id = "maintext"> 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>
```

Changes to the HTML File – adding an ID to the Paragraph tag in “mainsection”

- You should also notice within the **div class “mainsection”** I have changed the `<p>` tag to include an ID.

- I have changed...

`<p>`

...to be...

`<p id = “maintext”>`

- This ID means I can reference this in my JavaScript.

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

<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="linksnave">
  <br />
  <button type = "button" onclick = "fontSizeSmaller()"> Shrink Text</button>
  <p />
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
</div>

<div class="mainsection">
  <p id = "maintext"> 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>
```

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.

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

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

<script>
    function fontSizeSmaller(){
        document.getElementById("maintext").style.fontSize = "smaller";
    }
</script>

|
</head>
<body>
```

Now for the JavaScript

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

This is saying to select the item within the HTML with the **ID** found within the brackets (i.e. text in the main body of the site.)

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

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

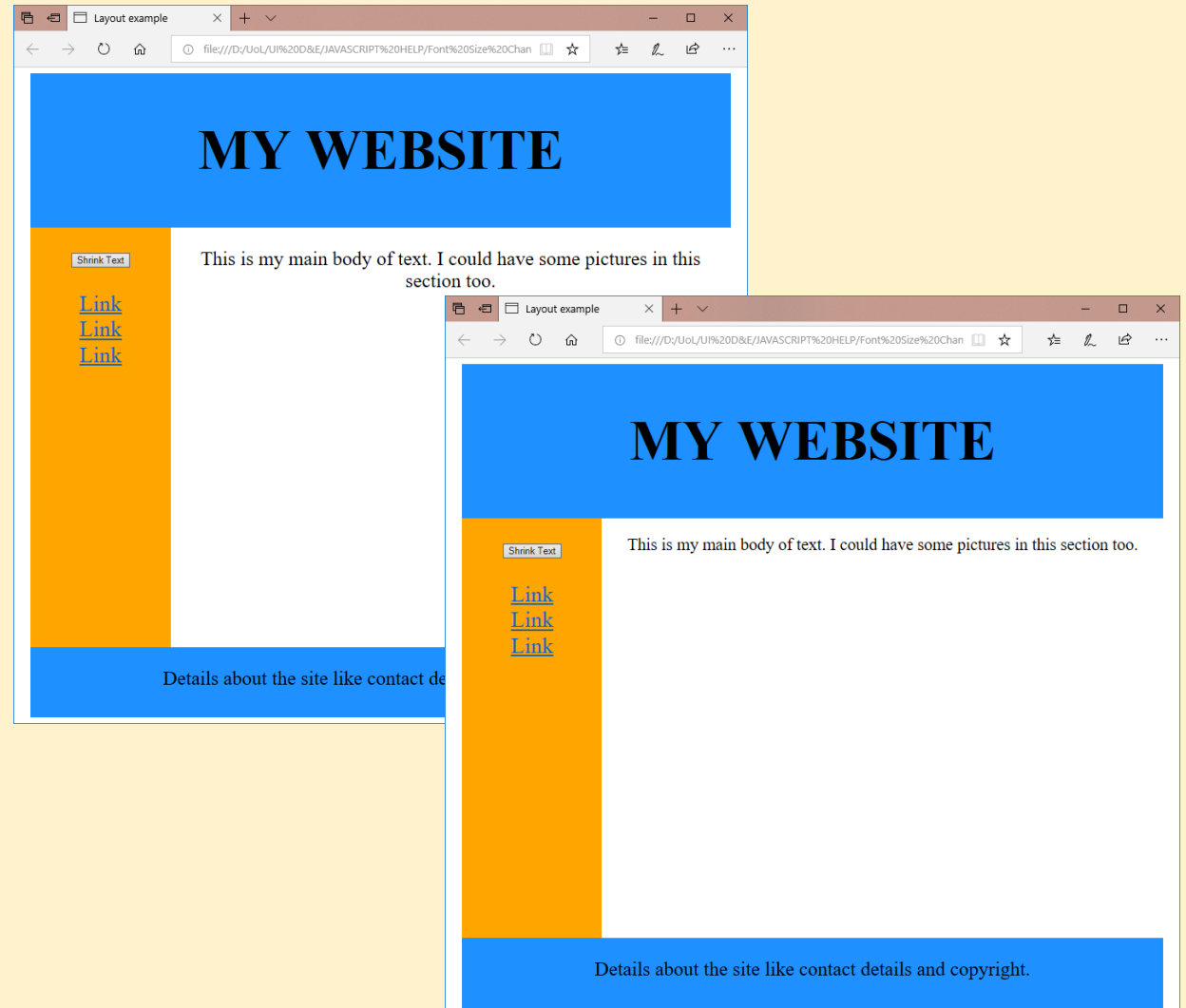
<script>
    function fontSizeSmaller(){
        document.getElementById("maintext").style.fontSize = "smaller";
    }
</script>

|
</head>
<body>
```

This is saying we are changing the **fontSize** so that it equals "**smaller**". This command will make any piece of text smaller than its initial size.

Now to test your code.

- You should see that when you run your HTML code you will have one buttons placed on the links navigation bar.
- When you click on this the text in the main part of the website becomes smaller.



Changes to the HTML File – adding more buttons

- Now you have a button to shrink the text it would be good to have buttons to enlarge this text, and to reset it back to how it was.
- So copy the code for the initial button that you made, and paste that below it.
- Then change the text and function name as I have in my code.

```
</head>
<body>

<center>
<div class="container">

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

<div class="linksnav">
  <br />
  <button type = "button" onclick = "fontSizeSmaller()"> Shrink Text</button>
  <br />
  <button type = "button" onclick = "fontSizeNormal()"> Normal Text</button>
  <br />
  <button type = "button" onclick = "fontSizeLarger()"> Enlarge Text</button>
  <p />
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
  <a href="#">Link</a></br>
</div>
```

Now for the additional JavaScript

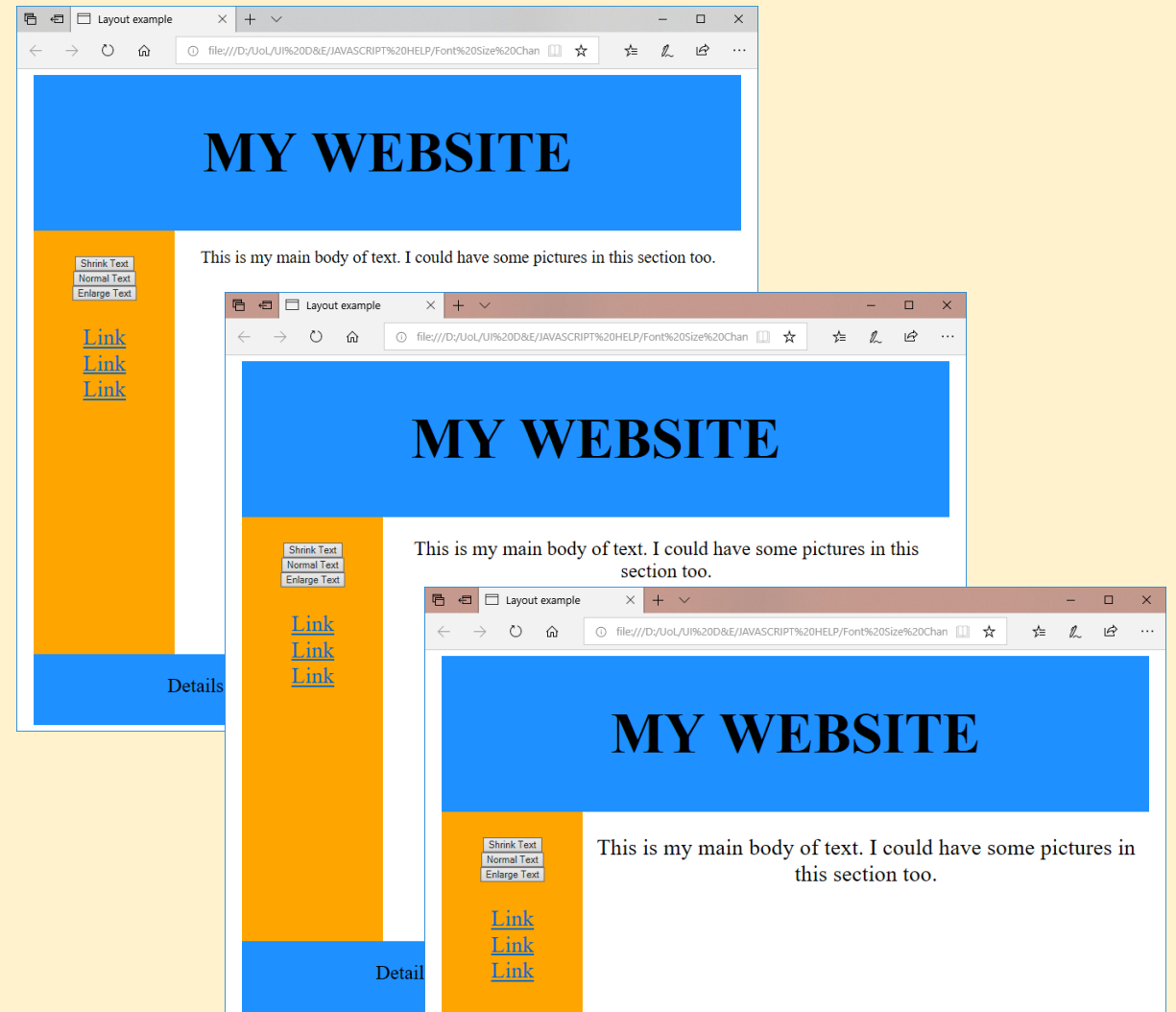
- Now in the JavaScript I have again copied and pasted the code for my first function, and changed the function names to match what I placed in the buttons.
- One function will make the text **“larger”**, which increases the size of what ever text you have.
- The middle button resets the text to the original size. This is why **fontSize = “inherit”**. This will look at the CSS and use that size for the **“mainSection”**

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

<script>
    function fontSizeSmaller(){
        document.getElementById("maintext").style.fontSize = "smaller";
    }
    function fontSizeNormal(){
        document.getElementById("maintext").style.fontSize = "inherit";
    }
    function fontSizeLarger(){
        document.getElementById("maintext").style.fontSize = "larger";
    }
</script>
```

Now to test your code.

- You should see that when you run your HTML code you will now have three buttons placed on the links navigation bar.
- When you click on each of these it will change the size of the text.
- Instead of using “smaller” or “larger”, you can also use 12px (or other pixel sizes) instead.



The final code...

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

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

<script>
    function fontSizeSmaller(){
        document.getElementById("maintext").style.fontSize = "smaller";
    }
    function fontSizeNormal(){
        document.getElementById("maintext").style.fontSize = "inherit";
    }
    function fontSizeLarger(){
        document.getElementById("maintext").style.fontSize = "larger";
    }
</script>

</head>
<body>

<center>
<div class="container">

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

<div class="linksnav">
    <br />
    <button type = "button" onclick = "fontSizeSmaller()"> Shrink Text</button>
    <br />
    <button type = "button" onclick = "fontSizeNormal()"> Normal Text</button>
    <br />
    <button type = "button" onclick = "fontSizeLarger()"> Enlarge Text</button>
    <p />
    <a href="#">Link</a></br>
    <a href="#">Link</a></br>
    <a href="#">Link</a></br>
</div>

<div class="mainsection">
    <p id = "maintext"> 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>
```

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>