**Worksheet 3 – Web Design & Development – Y2 Semester 1**

In the first two weeks – we have developed a very basic site. But the problem is – it is not at all responsive. When we look at it on our mobile device – we have to pinch & zoom – that’s very unsatisfactory…

We will focus on our clubs page (clubs.html) - where at the moment on our desktop we have clubs displayed in 3 columns going across the page. By making it responsive – the following will happen:

* As the viewport gets narrower – it will move to a 2 column display.
* Finally – as the viewport is at its smallest – it will be a 1 column display – all the columns will be stacked.
* Have a look at [Responsive Patterns website](https://bradfrost.github.io/this-is-responsive/patterns.html) (Brad Frost) – we are using the “3 Columns content reflow” pattern.

Make sure you save your work on OneDrive

- within your existing directory structure create a directory called Lab3 – copy over the existing work from Lab 2. We want to now try and make it responsive.

- so you should have something like OneDrive:/Year2/WDD/Lab3 or similar

**Task A – Add media queries**

**1.Add media queries to your code**

Add media queries for the following breakpoints to the end of your existing CSS code:

* 768px - green
* 576px - red
* 320px - blue

The colours mentioned above – for each of the media queries, change the background colour to the one mentioned for each breakpoint. The colours we use here – this will be an easy way for you to initially judge that your media queries are working!

Review

Before you move on – make sure that when you use developer tools/resize your browser – the background colour changes to the colours above.

**2.Change body font size to 100%**

By default the browser has a pixel version size for default font size. Change this to be 100%

**3.Remove all references to px in your stylesheet**

We now want to remove all references to px in our stylesheet (apart from the initial reference to 960px wide at the top of our style sheet – we will eventually override this within our media queries).

Use rem instead of px (1em = 16px)

* You might go with main heading on page (h1) to be twice the size of the text default.
* Put the article headings to be 1.5 times the size of the text default.
* What about spacing around images?
* What about paddings and margins?

Review

Play with the measurements you are adding – how does the changes look in the desktop?

**4.Add changes to your media queries**

We now want to make the relevant changes so that as we change the size of our browser – from desktop sized to tablet sized to mobile sized.

* For the 768px media query – make changes so that now only 2 columns of clubs are displayed across the page.
* For the 576px media query – make changes so that all clubs are displayed as stacked column.

Hint: you are looking at the width of the .club class to make these jumps from a 3 column to 2 column and finally to 1 column.

**5. Further refine your media queries**

Now add changes to your media queries – changes that will make your site look better on mobile devices. Here are some of the changes you should think about.

* <h1> elements – do these look good/correctly sized compared to main body text?
* Images – Are the images optimised for display on the mobile device? what is the spacing like around the images?

**6. Finally, add a responsive burger menu**

We’ve adjusted our content now so that it performs responsively. Instructions on how to implement a simple, fully CSS driven burger menu are contained here

* <https://code-boxx.com/simple-responsive-pure-css-hamburger-menu/>