CMP306 Dynamic Web Development 2 – Tutorial 1

|  |
| --- |
| **A note on Abertay Servers.**  The servers at Abertay were upgraded during summer 2018.   * mayar.abertay.ac.uk is the Apache server running PHP version 5.6 * A security certificate has been implemented on the server, so it supports HTTPS connection. * lochnagar.abertay.ac.uk is the database server and supports the latest MariaDB database (which is identical to MySQL). * Access to the database is through phpmyadmin.abertay.ac.uk * To see your site externally to Abertay, at home or via 4G for instance, you need to login to the firewall at <https://fw1.abertay.ac.uk:4100>   You may use your own external web space if you wish but this is your responsibility. In particular if your site is down during the marking process then you will be awarded a grade NS0. For moderation purposes the site must be live until the end of February 2020. |

Tell me about yourself. I wish to find out what level of Web Development you are comfortable with. Please answer these few questions and I will come around the class and discuss your answers.

|  |
| --- |
| 1. I am happy writing HTML5 Web Sites.   Yes |

|  |
| --- |
| 1. I have used an HTML Framework (such as Bootstrap).   Yes |

|  |
| --- |
| 1. I am confident using PHP on a sever (not just Localhost)   Yes |

|  |
| --- |
| 1. I am confident in using PHP to get data from a database / inserting data into a database   Yes |

|  |
| --- |
| 1. I am confident in building a MySQL database using phpmyadmin on the server   Yes |

|  |
| --- |
| 1. I am confident with data normalization.   Yes |

|  |
| --- |
| 1. Can you show the lecturer your “best” web page written to date?   Yes |

-------------------------------------------------------------------------------------------------------------------------

**Tutorial 1 - HTML Frameworks.**

Today you will focus on client-side style for the one and only time in this module.

Let’s start with a couple of rules :

1. HTML is for structure – it will deliver the content of the site with no style. Without any style, by default, pages will be black on a white background with the blue / purple links.
2. CSS – is for style – it makes your site look good.

One well established development method is to develop a site without style (so no CSS)

until you have the HTML / PHP / MySQL working to deliver the content you want. Then add the styling. Many organisations will provide you with a standard CSS file which is their standard template. Otherwise you could write the CSS yourself – never a good idea. One significant criticism of CSS is that the layout of pages is not handled well. CSS positioning is not well designed and using tables to position data is just bad. You also want to see the site on a tablet and phone as well as a PC, so you have to get these media queries right.

So rather than writing everything from scratch, there are frameworks that are responsive, will render an appropriate site on the PC as well as the mobile and will ensure a sensible layout. Today you will explore an HTML Framework, Bootstrap.

**Tutorial task.**

In this tutorial you will explore the use of a Framework (Bootstrap). Bootstrap is available at:

https://getbootstrap.com

Each week you need to add a commentary or summary of the work in your web site / portfolio. This week you are asked to summarise various features of Bootstrap.

1. At the heart of any HTML5 frameworks is a grid system. Summarise the grid system you will use in Bootstrap.

The grid system in Bootstrap uses classes to define the size and number of columns you’d like a certain object to span, the grid is also responsive and allows for priority of certain sized devices.

1. Menu systems are often a bind to get right especially if you want a multi-dropdown menu. In an ideal world you should write the HTML for a menu as a set of hierarchical un-numbered lists. Summarise how you will implement menus in your site using Bootstrap.

First, all the menus will be coded using HTML and then filled with links. Using Bootstrap, I can make sure all menus are responsive and will change state when the window is resized, or the site is being viewed on a different device. Navigation menus will be changed to burger menus when the window becomes too small. Dropdown menus will also be resized.

1. Pick out 5 further features, other than grid and menu, in Bootstrap that you think will be useful. Comment on their use.

Navs and navbars are useful throughout a website as they help to keep the design consistent, while also helping with user navigation.

Jumbotrons can be used to clearly show the subject matter of a page or specific pattern, as they highlight titles and headings.

Typography classes are helpful when defining paragraphs and sections of a website, making the page easier to read for the user.

Buttons are another feature that can be used to improve navigation around a page or the site. They can also be formatted using other Bootstrap classes.

Alerts can be used to confirm to the user that a form has submitted successfully, and indicate that the user is about to be redirected.

Dr Geoff Lund

Lecturer in Computing.

g.lund@abertay.ac.uk