Mobile Application Development Report

# Responsive Design

Prior to starting this project, I did some extensive research into how bootstrap does responsive design as that is a very widely used responsive design template system. When designing the CSS for my site, I based it around the bootstrap classes which uses a row and column system. This system is bound around media tags in order to reposition elements on the page based on the width of the device it is currently being displayed on. For example, on the main page, the weather at the bottom of the page will display side by side on most displays, however on a small display they will display one above the other so that the information is still displayed correctly. Another element of responsive design that was used is for the table on the main page, this does something different to the rest of the page, as it actually reorganises the table into a list format instead of a table format when the smallest display size is activated. This means that the user doesn’t need to scroll horizontally at any point on this site, as doing this on a mobile device can be very irritating.

# Functionalities Achieved

All of the functionality that was documented on the specification was achieved apart from the ability to leave a hand drawn graffiti purely due to lack of time at the end of the project. The gesture functionality that was implemented is to flip the phone towards you when entering a message on the guestbook, this will post the message for you, which saves you clicking the post button. Testing this feature took a while in order to get the correct value for the motion, as to little and it would post whilst you were typing, to large and it would be impossible to get the device to recognise your motion event. I also added a timeout to the flick to post feature in order to stop multiple posts when flicking. The weather functionality will display both the users weather at their location, and the weather in Loughborough, but the user’s location can take a little while to retrieve properly on a mobile device and so it sometimes won’t display instantly. This feature works very well on a PC however, due to the location being instantly available to the browser.

# Testing of the Website

Throughout the development process, I used chromes inbuilt device emulator to test the different viewport sizes, as this allowed me to test quickly and easily. Towards the end of development, I started testing on my personal phone and tablet in order to get a more real life representation of how the website worked. This brought up some issues that only existed on the mobile chrome browser such as the location issue mentioned in the previous section.

# Challenges

I have never done web development in my experience previously, so getting to grips with this in a short space of time was very difficult for me personally. During the development process, the CSS styling displayed inconsistencies on many browsers and was just generally a pain to work with.

# Limitations

The main limitations for the project was my personal knowledge of web development. This is probably the most complex frontend web development project I have done as it has never been something I enjoyed or aspired to do in later life. Due to the various projects we have going on right now, I had a serious limitation in respect to time, this meant that various things had to be shifted around in order to make sure this project was completed by the deadline, and it meant I couldn’t spend enough time looking into how to do the more complex things and make the design of the site look nicer.