**WDP Report – Julian Pearce [13030507]**

When I started building the site I decided to take a different approach to dealing with the layout than my other projects. Previously I dealt with layouts by using floats and using clear-fixes to prevent any bugs in my layout – however this time I decided to use a relatively new feature *display: flex;* this CSS property made creating layouts much easier than before. This property allowed for me to align my content easily and made implementing my media queries much easier. Flex-box is an adaptive property which can calculate what to do with the remaining space of a page and allows for making fluid layouts in a natural way in comparison to floats. This learning curve has improved my web development skills immensely and I am more confident than ever in tackling any challenges with relation to laying out content.

In addition to layout challenges I also found new ways of implementing vector based graphics with low file size and quick load speeds in the form of SVGs, these forms of graphics are snippets of code which in turn calculate the paths and dimensions of shapes and lines and as a result don’t require any HTTP requests. This means I could include some good looking icons which were scalable without loss of quality. In terms of non-vector images I dealt with the challenge of scaling them without loss of quality by setting the *height: auto;* which means this will change as the browser gets smaller.

The two main show-stoppers of my website are the YouTube slider and the Google weather map, the slider was created from scratch with the use of overflow to only show one video at a time and jQuery and Velocity together to deal with transitions and sliding movement. The velocity in particular gave the slider a slick look when switching between videos. This slider made use of YouTube’s API in addition to AJAX to get the six most recent videos from a YouTube channel and display them; this means the slider will be future proof and requires no manual updating. The Google weather map used a relatively new technology called web components which Google are backing heavily at the moment and allowed for creating a map with markers which was much more semantically correct than the old Google Maps API since the tags are machine readable being *<google-map>* and *<google-map-marker>*. However instead of using static map markers which would be pretty boring I used a weather API which pulled live weather data for the selected locations which is displayed upon clicking on the related marker. This makes the content of the site dynamic and the weather and YouTube content will be different on a daily basis which is important for modern websites.

I believe the web should be accessible for everyone and therefore did some research with regard to making my site more accessible. I found by reading online that setting *role="button”* on elements which main purpose was to function as a button made it possible for screen readers to determine these were buttons and act appropriately. In addition to this I also added *tab-index* onto the buttons for my slider which made it possible for users without a mouse to control the slider.