The Submitted prototype’s scope is to convey how the front end ui will be delivered to the Client and how they would interact with it, therefore we’ve left out any real functionality in relation to entering data in the backend and accessing the API.

I’ve used google's developer tool built into chrome because it allows for quick iterations upon my codebase and a relatively accurate mobile emulation, on top of it being free and the same browser most of our users would be accessing the App on.

When the chrome browser opens a HTML file it read all the raw data within that file, it then needs to convert it to a Document object model(DOM) by converting the raw data into characters which is derived from the character encoding of the HTML file. Once converted the browser created the DOM structure for laying out the webpage.

While the browser is initially loading the HTML file, once it sees a Link tag it will start to fetch that. Similar to the HTML conversion once the CSS has been fetch the browser converts it into readable characters then it structures the CSS into a CSS Object Model(CSSOM) creating a hierarchy for styling within the webpage.

With the addition of Javascript the DOM Tree can become broken if not implemented properly, if the browser encounters a script tag with javascript linked, it will by default pause the DOM construction and run that script, this is bad because Javascript can alter both the HTML and CSS DOM, and if the DOM isn't fully constructed when the script runs, it can try and access DOM elements that haven’t been constructed yet. Most web pages get around this by adding a ‘defer’ tag to the script to tell the browser to run the javascript after the entire dom has been constructed.

I hope to integrate this prototype with a functional backend API in the UX2 project to create application that has fully built features including working forms and user settings.

Google chrome is a free application and the development tools come packaged in by default making it useful tool for quick prototyping.