### CSS3

Cascading Style Sheets are used to establish a distinct area for web design away from the web content. CSS 3 makes powerful functionality available to style the presentation of web pages without causing any modifications to the main HTML 5 document design and allows the use of several other interesting technologies like angular js, which we will explore later (angular js will not work with previous versions of CSS.) WC3 cultivate the standard thus ensuring its global acceptance and subsequent increasingly browser agnostic status.

Furthermore, the significant advances in CSS3 has delivered a greater ability to develop in a cleaner less verbose and productive fashion. Utilities such as animation tools, the use of rounded corners, an expanded choice of colours including opacity, text effects like shadowing, media queries, transformational effects to the appearance of 2 and 3D dimensional objects, transitions and customized backgrounds have all contributed to this. Previously rounded corners would have required 4 rounded images at the 4 boundaries of the div, opacity would have required the inclusion of a .png/.gif, and text effects would have required Photoshop.

Reference - What's New in CSS3? Essential Information for Developers, [Estelle Weyl](http://www.oreilly.com/pub/au/4943), 2012 Publisher: O'Reilly

### Javascript

Along with HTML5 and CSS3, JavaScript is an important part of the technology platform for web development and it is used on practically every website. Whilst HTML5 provides the content of the web page and CSS3 provides its presentation styling, JavaScript is used to create interactive web sites and to provide dynamic behaviour to static web pages. It is a scripting language and all current browsers on laptops, smart devices, and gaming consoles support JavaScript making it a pervasive language.

At a high level, it is comprised of window, document and element objects. The window represents the browser and current url and lets a script load different urls, the document object represents the web page and the element object represents the components of that web page.

JavaScript also provides event handlers, which modify the behaviour of objects by allowing scripts containing functions to be called asynchronously once the event triggers. This makes the page act like an application. Examples of event handlers are the onload and onclick events. For example the onload event could dynamically load graphical content once the web page is requested. We will see an example of this in our application. The HTML <script> element is the placeholder and calling point for JavaScript.

Reference - *Flanagan D. (2011), JavaScript: The Definitive Guide, Sixth Edition*