1. **Introduction**

This report has been produced in order to provide an overview of the week one project undertaken by the Java 8 week developer course at the London FDM academy. After providing an overview of what a web application (a web app) is, the report will cite an example project, produced by Stephen Collins, dubbed “FDM Gazette”. Should any additional queries follow from reading this report, please forward these to [stephencollins@fdmgroup.com](mailto:stephencollins@fdmgroup.com).

1. **Project Work**
   1. **What a Web App is**

In order to properly follow the contents of section 2.2 (which discusses the example project), it is important firstly to clarify what a web application is. A web application is an application/program that is stored on a remote server and its users interact with it via a web browser (e.g. Google Chrome, Safari, Internet Explorer etc.). The functionality available through a web application can mirror that of the applications you run on your computer as they are still capable of processing and manipulating data.

Web applications can be written in a variety of different programming languages but for the purpose of this project, HTML and CSS were used, along with some (but not much) JavaScript. What this means is that the application produced is capable of displaying data, images, text etc. in a stylized way but without any functionality beneath this. Functionality could be added to the application, but not before the trainees have progressed to week eight of their course.

To understand how this application works, it is important to understand the function of HTML and CSS. The easiest way to understand this is to imagine painting by numbers. HTML (Hyper Text Markup Language) forms the lines on the canvas (these sections are referred to as divs, spans or containers depending on their function) and the numbers for what colour to paint the areas in (these are id’s and classes; importantly only one id but multiple classes can affect a container). The CSS (Cascading Style Sheets) then looks at the “canvas” and provides the styling (paint) to the different containers based on the rules that it associates with each class name (number).

* 1. **Rules influencing the design of the web application**

The principles that determined the layout and design for the project were:

* Tesler’s law that the design should take away complexity; this is met through the autofill and login options.
* Miller’s law that the optimal number of objects a brain can process/remember is 5-9; this is met by using a pattern of visualisation known as an F pattern, in which objects are placed in horizontal groups that allow for easy scanning.
* Hick’s law, which states that too much choice increases amount of time a user takes to make a decision; therefore, a menu is used to filter and breakdown the amount of content available at any one time.
  1. **The Web App Created For this Project (FDM News)**
* At the very top of the page, there is a block above the header containing the current date and time in the top left corner, there is also a prompt for users to login or register as a form of data capture.
* The main header contains the FDM Gazette logo and an accompanying menu of subcategories which the user can select from.
* As the web application is responsive (this means that the layout moves and scales depending on the device screen size, or the window size on a desktop) this header collapses down to remove the menu and replace it with a hamburger menu (traditional expandable menus for mobiles and tablets).
* There is an accompanying search bar that is a set percentage width on larger displays; this changes to utilise the full width of the screen on tablets and mobile.
* The above sections are locked to the top of the window, meaning that as the user scrolls the page, the important navigation content remains at the top and accessible.
* There is a large featured news article which takes up ninety percent of the screen width, with a significant section of text overlaying the image (using a translucent box to allow the text to remain visible).
* In keeping with the F pattern, there are five news articles with small images and small amounts of text running horizontal under the featured news.
* Beneath this the news articles flow vertically taking sixty percent of the width of the screen. They contain the article title and approximately three lines of text on the right of the articles image. The remaining forty percent is dedicated to a vertical advert.
* This is changed when on smaller devices or windows, the advert moves above the articles with new adverts appearing every five articles. The advert is horizontal and utilises the full width available. The same is true of the articles.
* At the bottom of the web application is a footer with key information that users may require e.g. accessibility, privacy, terms, sitemap etc.

1. **Conclusion**

The application is at a good initial stage, the designs have been decided and are able to have feedback collected on them. The application isn’t at a stage where it can be called an application yet as without a Java backend (the muscle and bones underneath the HTML and CSS) it is little more than a responsive image.

The recommendation for the next stages following this report is to allow the trainees to progress to the later stages of their course in order to add backend functionality and in the meantime collect feedback on the designs.