**Android Demo App Report**

I’ve decided to make a app as one of my interfaces as a lot of people now days choose to do everything over their phones and so developing an app can help broaden my skills in the software development field, something I am interested in. Furthermore, apps offer a lot more design freedom compared to other interfaces, for example you do not have to rely on buttons to do things you could just swipe to go back.

To create my app I’ve decided to go with making it on Microsoft Visual Studios as it has a developer platform named Xamarin. This meant I had to learn a few basics on the language C# which is what Visual Studios uses. Xamarin is a .NET developer platform which allows you to easily develop an app not just for android but also iOS and Windows at the same time. This means my app will be able to work on different platforms. In addition to this as a beginner using this software is made easy as there are a number of templates you can use to make your app and a number of resources online to help understand how to develop app. Visual Studios also has a great number of add-ons you could use for example VisualSVN which allowed me to easily connect to my SVN repository and make commits.

As I developed my demo app I made use of TDD when I added some functionality. I made use of NUnit tests which are like the standard JUnit tests to write my tests. An example of these tests where checking if the correct text would appear when a button was pressed or the correct maths was being done each time a button was pressed. These tests would originally fail and then I would write just enough code to pass them. I did encounter some issues when trying to make my NUnit tests work as their was not a code snippet that initialized the forms on each platform. To get past this I carried out some research and made use of a Xamarin package add on which enabled me to get my NUnit tests working.

The following resources were used as I developed the app:

* <https://bitbar.com/blog/setting-up-xamarin-uitest-framework-for-mobile-app-testing/>
* <https://www.visualsvn.com/visualsvn/getting-started/>
* <https://github.com/jonathanpeppers/Xamarin.Forms.Mocks>
* <https://www.tutorialspoint.com/csharp/index.htm>