Learning reflections and possible improvements:

In hindsight and with more time permitted there are a few areas I would have liked to improve on. First of all is the overall look and feel of the application. The main game view was done on a canvas which I liked, it’s more flexible than the standard UI tool kit and if I used this for the rest of the app it may have made the app appear more consistent. I would also have liked to implement some animation to increase the responsiveness of the app, when the computer has a turn it happens so quickly its abit hard to follow.

I didn’t do any of the calculation algorithms in separate threads as they were trivial enough not to have a big performance hit but if I had more time I would have liked to have done this. I could have implemented the canvas in a surface view but when the screen is only being re-drawn at a very low frequency (every turn or second if in timed) it did seem abit over kill. If the content was abit more dynamic, say a platform game I would have reconsidered.

Another improvement would have been to deal with screen rotation as opposed to just fixing it in portrait, there are a large amount of apps that are fixed in one orientation so I didn’t feel too bad about doing this but if I were to publish the app I would want it to stand out. Currently the app uses a single XML layout file for each activity, these do work for the vast majority of screen sizes but were really designed for high resolution phones. If I had more time I would have created an XML for each screen size classification to make the application feel like it was designed with the users device in mind. I would have also liked to implement fragments for the settings page. On smaller screens showing the name and photo of the contact may appear abit cluttered, using fragments would mean I could put the photos on a separate screen for the smaller devices and had them on one screen for larger devices such as tablets.

I feel now that I have a good appreciation of how to program an android device. The concept of isolation between activities using intents was new to me but I have managed to implement this throughout the application and I now have a good understanding of it. The thought of a custom adapter for the scoreboard was new to me too but once I got my head around it it was pretty simple. The hardest part of the coursework for me was the content provider, after modifying the table definition I didn’t know how to re-write the new definitions to the SQL database, I now realise I just had to increment the version number. Using a content resolver to access the provider was a tricky concept for me to grasp too but now I’ve done it a few times I’m happy I understand it.