**SOFT251 – Reflective Report**

The design process started off through scanning through the specifications for the work and highlight the important data needed to be used in the web app. Planning the web app on paper and the use of pseudocode to help plan out how the program is put together and creating the classes, the attributes in them and the behaviours each class had to do. A majority of the decisions behind the classes made were through the use of the appendices used in the specification Through doing research on the best way of storing the data for the web app I saw that it could be saved in XML or through a database such as SQL, but I decided to save it in XML due to finding tutorial videos on how to do so on the DLE, similar I decided to use GlassFish due to this reason. The rest of the development of the web app was straight forward as the next step was to create all the classes and the stuff that went along with it. When coming to creating the GUI for the website using JSP I used a very simple and straightforward design, so the user knows clearly what everything is to avoid confusion and make it user friendly. Some designs have deviated from the specifications though, such as the user identification system as it uses a more streamlined and basic version that requires a user’s decided username instead of a randomly assigned number, this was decided as I found it easier to implement and does not have much effect on the web app overall.

The design does mostly meet a good design criterion, variables are name appropriately and I have adhered to the SOLID principle and uses software design patterns in its development and encapsulation. One of the design patterns I used in the development of the web app is façade, this was done using the GUI which hides the complexities of the app from the user. Another design pattern used builder. These can be seen in the UML class diagram.

Some of the shortcoming in my work is not well enough use of using GIT version control as I did not use it, due to force of habit it just saved my work on my PC and therefore my version control is lacking. To improve this in the future I should use GIT version control and not save the files on my local PC. Another one of the problems with my final product are that some data cannot be deleted, this was an oversight that I did not realise until I finished the program and was too late to fix, in the future I should plan to create my projects more carefully and take in all possibilities.

