**ISYS2001 Introduction to Business Programming**

**Extended Learning Portfolio – Reflective Report**

Throughout the course of studying this unit, I revisited many programming concepts that I am familiar with, though was admittedly a little out of practice on – the coursework for this class has been a good opportunity for me to brush up on these skills. In particular, I felt that the simulacra programming assignment was the most impactful activity for me (I chose to do the resource fluctuation option), as it tested a few key areas of my programming knowledge – such as input validation, loop implementation and referencing external documentation to effectively use imported modules. Implementing the assignment and thinking up the different tests I created to demonstrate the impact of changing variables on the simulation results was also a good exercise, as it necessitated more methodical, logical thinking (such as the requirement to seed each batch of tests with the same value and include a control to best display how changing only a single variable affected the trend line).

Overall, I have enjoyed this unit and the opportunities it has presented me to experience an unfamiliar programming language as a (semi) beginner, and I have found the ways in which Python differs from other languages such as C and Java to be relatively insightful in my fundamental understanding of programming concepts.

**Appendix – Weekly Journal Entries**

**Week 1 Journal**

In this week's class, I was introduced to the unit. Though I already have a solid base of knowledge and experience with coding from previous study, and already knew well the concepts Dr. Borck covered in the lecture and tested by the lab exercises, I did find it refreshing how they were explained and easy to understand for beginners.

I feel that this unit will present a good opportunity to make sure I still remember my programming skills, and further that it may help me gain a new perspective on something I take for granted. I am interested in the topics covered by this unit and feel confident in my ability to understand the concepts well.

**Week 2 Journal**

In this week, I got to recall some of my experience with programming in the Taste of Python activity. Though I've never had to program in Python before, I found it was very intuitive to use coming from my existing experience in Java and C (and some limited experience in C++). Though the syntax in these languages is very different from what Python uses, my grasp of coding concepts such as data structures, code optimisation by eliminating unnecessary variables and a more general understanding of the ways in which coding syntax generally operates was very helpful.

I am excited to continue completing the coding exercises in this unit and to have a formal introduction to Python programming.

**Week 3 Journal**

This week, I enjoyed the opportunity to revisit creating functions and applying them for practical programming purposes, and I also appreciated the way the questions were laid out in the tasks. I feel the instructions were mostly easy to follow in order to arrive the solutions for the various financial problems in the lab activities. I do appreciate how the iterative step in the business buzzword generator activity (by completing the first step, then iterating the second step onto the work from the first step, and so on) helps to expose the process that the program comes together, and believe this is a helpful teaching tool for less experienced students.

As with last week, I was unfortunately unable to attend this week's lab in person, and while I did not struggle with these activities, I felt that occasionally the wording of the tasks was somewhat ambiguous (or left out information that could help clarify what exactly is expected). I can imagine that for the future labs in this unit I will need to make sure I am able to attend in person in case I am confused by the wording in a future activity.

**Week 4 Journal**

This week, I was interested to get back into practicing input validation and exception handling, specifically in a language I'm not fully familiar with. I was at first afraid that it would be difficult to wrap my head around doing this in Python, but fortunately I found that the wealth of information online (and the simplicity of Python syntax) made it quite easy for me to follow and get my code working without many errors.

Additionally, using DMOJ as a test harness to verify my solution to the problem was quite helpful in keeping me mindful about how I write my code: initially, all my tests failed due to my program prompting the user for input and providing a descriptive output message, where DMOJ's test harness expected the only program output to be a single variable signifying the code worked as intended. Once I realised this, I simply had to go back in and modify my code so that it would only produce exactly what was expected.

**I did not complete my journal entries for Weeks 5 and 6, and they have been intentionally excluded from this appendix**