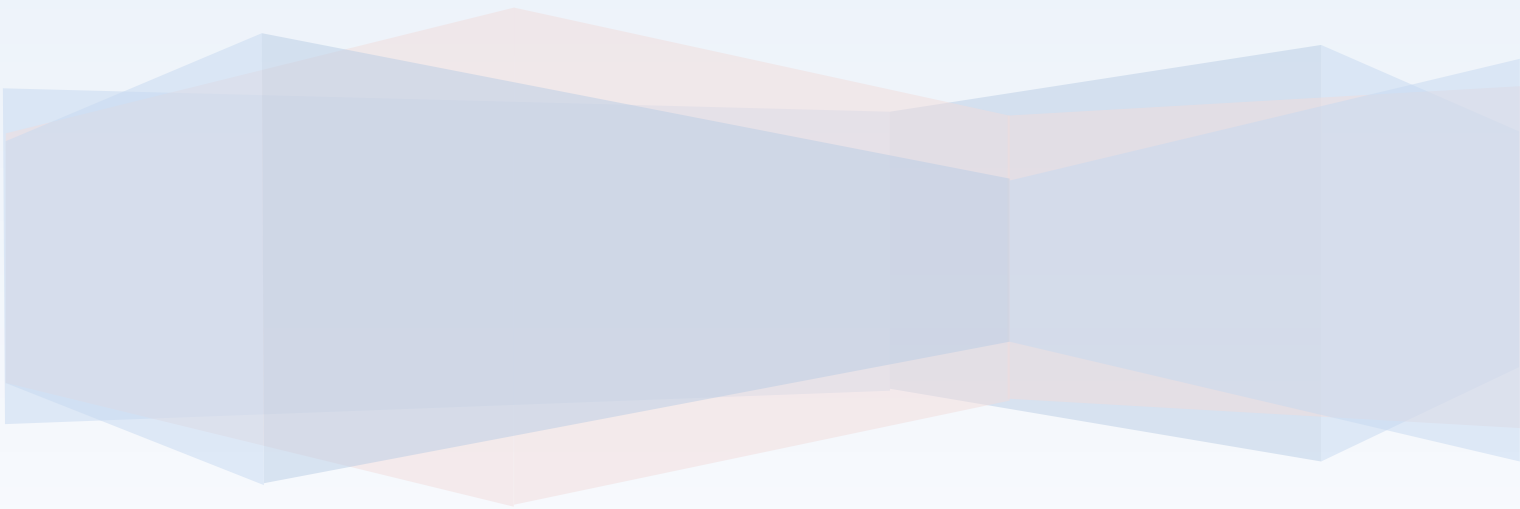# COS10009 – Introduction to Programming

Learning Summary Report

Hong Dat Cao - 104497198

Self-Assessment Details

The following checklists provide an overview of my self-assessment for this unit.

	Pass (D)	Credit (C)	Distinction (B)	High Distinction (A)
Self-Assessment (please tick)	**55**			

Self-assessment Statement

	Included (please tick)
Learning Summary Report	✓
Test 1 and Test 2 are Compete in Ed	✓
All Pass level tasks completed (including tutorial tasks)	✓

Minimum Pass Checklist

	Included (please tick)
All Credit Tasks are Complete in Ed	

Minimum Credit Checklist, in addition to Pass Checklist

	Included (please tick)
Distinction tasks (other than Custom Program) are Complete	
Custom program meets Distinction criteria & Interview booked	
Design report has structure chart and screenshots of program	

Minimum Distinction Checklist, in addition to Credit Checklist

	Included (please tick)
HD Project included	
Custom project meets HD requirements	

Minimum High Distinction Checklist, in addition to Distinction Checklist

Declaration

I declare that this portfolio is my individual work. I have not copied from any other student's work or from any other source except where due acknowledgment is made explicitly in the text, nor has any part of this submission been written for me by another person.

Signature: HONG DAT CAO

Portfolio Overview

This portfolio includes work that demonstrates that I have achieve all Unit Learning Outcomes for COS10009 Unit Title to a **Pass** level.

Throughout the learning process, I have managed to complete all the Pass Level tasks, while Credit Level tasks and beyond seemed advance to me. When doing each task, I was able to understand every one of them. I couldn't do that without the help of my tutor, as well as the content that the unit offers. Every journey always has obstacles, and so does mine. Moving from weeks to weeks, the language seems to get harder and harder, I tried my best to understand, and I succeeded. With the parallel of teaching and practicing by the tutor, all the Pass Level tasks were done flawlessly. Text Music Player is what I have done. Apart from tasks, there were exams. These exams are easy to me, though I had to resit in one of them because I did not review. Those exams are perfect since they checked what have I learned and what did I miss out. I was very happy that I managed to pass two of them, meaning I was in perfect pace with the unit. In conclusion, I am confident enough to confirm that I have got a grasp of every basic knowledge that the unit has to offer.

Reflection

The most important things I learnt:

Thanks to the lessons and tutorial tasks, I have managed to get a grasp on Ruby's basic understanding, as well as some of the C and Python language. One of the key learning points I found the most useful is "Structured Programming", which are Sequence, Repetition and Selection. Structured Programming appears in most programming languages. At first, it was complicated to understand, however, by referring it to everyday life routine, its values seemed more visible, helping me understood it from top to bottom. Other than that, throughout the unit, I understood the basic elements, how functions and procedures operate. Arrays and enumerations were complex to me, causing me a little trouble in understanding it thoroughly. I was surprised that we got to learn about C and Python near the end of the unit. I expected to learn more the two languages.

The things that helped me most were:

I found the use of the Ed discussion is very helpful. The interface is user-friendly, it is simple to access around and find what I look for. Convenors and tutors successfully in explaining the contents of the unit thoroughly and simply, as well as in constructing the notes and exercises. When explaining and teaching the contents, examples are also included. For me, learning and seeing the result simultaneously is extremely efficient, as in the process of learning, errors may occur. I usually have trouble learning my mistakes, but with the method of learning and seeing result simultaneously, it has become easier with the help of tutors and convenors in the lectures and workshops.

I found the following topics particularly challenging:

I would say the Major Pass Task Level is the most challenging throughout the entire semester, this was the part where I put all my knowledge to use. Though it was just putting the previous tasks in one big file, I encountered some issues such as having the incorrect variable, using the wrong function. However, in the end, I managed to finish the task flawlessly, and I would say it has given me some new knowledge of this programme language. Other than Major Pass Task, GOSU was another challenge that I had to face, but failed to do so. Though I am still in the journey to understand how it operates since I reckon this will be useful in future studies or knowledge.

I found the following topics particularly interesting:

The part I found the most interesting would be the while loops and the function class. The while loops made everything rather more effective and helped the script more readable. The class function surprised me how I can use contents from other files to pass in an object, acting as its attributes. This is also useful in a more readable code as well as prevent time-consuming as without class, we would have two- or three-times lines of code.

I feel I learnt these topics, concepts, and/or tools really well:

Finishing the unit, I feel like I am one step closer to the computer world, as in communicating with them through multiple languages. I have used many tools before, however, during the unit I got to learn more about them and been able to use them more effectively. Those tools are Windows Terminal, Windows PowerShell and Terminal, Structured and object-oriented Programming. Apart from Ruby, I got to learn a little but crucial bit of C and Python.

I still need to work on the following areas:

As completing the Major Pass Task Level flawlessly, I would say that I could not find anything that I should need to work on since I have already got a grasp of the basics and intermediate knowledge of the language, thanks to our well-trained tutors and effective learning and teaching due to the use of Ed and Canvas. Though I find my code is very long and unorganized. I need to improve I my solution of conducting a cleaner and tidier code as well as learning more outside the box.

This unit will help me in the future:

Learning the first language sure was a challenging for myself, but this challenge helped me understand how codes work. Most of them has the same structure, as well as similar functions, just different languages. I find learning Ruby as a first language is very ideal, a great start on the journey where I will meet more complicated languages such as Java, C, Python, etc.

If I did this unit again I would do the following things differently:

I would approach this unit again with a more in-depth study and analysis. Everything went well only for the Pass Level, though it would have been more effective if I had done deeper research to obtain higher levels: Credit, Distinctive and above. I would fix my time management skills, since it was one of the reasons why I did not do well enough in this unit, which was only stopping at Pass Level. GUIs and GOSU were difficult tasks to me, therefore they would also be one of my aims to understand them.

Other...:

Apart from the reflection above, everything went well for me throughout the semester.