

COS10009 – Introduction to Programming

Learning Summary Report

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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)				x

Self-assessment Statement

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

Minimum Pass Checklist

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

Minimum Credit Checklist, in addition to Pass Checklist

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

Minimum Distinction Checklist, in addition to Credit Checklist

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

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: _____ Thanh Minh

Portfolio Overview

This portfolio includes work that demonstrates that I have achieved all Unit Learning Outcomes for COS10009 Introduction to Programming to a **High Distinction** level.

This unit contains a lot of topics to build the fundamental principle for a developer. It also encourages me to learn by myself to achieve the higher grade through each week.

For the first week, I learn the simple syntax and command for Ruby and trying to get a head up with the new language, understanding about the structure programme. Coming into the second week, I know what procedure and calling procedure, fixing some simple bugs and understand the flow of structure chart. In week 3 and 4, one of the biggest topics in this course is how to use the repetition and looping in ruby to reduce the length of the code. I also learned about the basics of Gosu and feel it quite challenging, but then after reading a lot of material on Portfolio help me to understand Gosu deeper. In fifth week, sixth and seventh week, I learned about the difference between OOP and structure coding and how to manipulate the system files and interact with the Gosu, with arrays and other things... Week 8's content is lighter but also important when coding is how to ensure the programme is coupling and coherence so that it can flow normally and increase it efficiently. In week 9, I learned deeper into how to debug and test the programme. In week 10, I learnt about the algorithms and recursion which is quite challenging to me when I am quite bad at math to ensure best algorithms for my programme. In week 11, I have learnt other programming languages and with me C is quite hard to understand at first but then go through some websites on the internet make me understand about C language better, while Python is quite like Ruby, and I go through it quickly without any difficulty. By the time of week 11, I have done with my Music Player which is a tough exercise when I need to take 4 weeks to think about how to do it, I think my Music Player can be rated for HD score because I have created 4 albums and a Playlist for it so that user can be added when they want to hear any song in order. In the last week, week 12, there are topics about the debugging and testing so that it helps to understand about the Ruby programme and may help me in projects that I will make in the future and my career.

For the custom project, I have learnt by myself by reading through a lot of resources in order to gain enough knowledge about Ruby and its structure so that I can build up the project. Learning by myself is a useful skill which will help my software engineer career a lot. However while I'm researching about the resources which can be useful for my custom project, I found that there are little of resources and mainly when people use ruby, they use 2D library instead of Gosu.

I would appreciate the one who has created this course because this course helps many students to learn about new languages that can be useful for the career and it also helps to setup the mindset of the software engineer (which is one of the most powerful tools when coding) so that the learners can think about the code, write the code in the logical way.

What I have done throughout this course is I have done all the tasks from T to HD so that it helps me to meet the standards in the rubrics to get high marks. I have tried to do the custom project by researching relevant topics about sprites (1 of the most hardest feature from my perspective in Gosu), ... and try to get the custom project done despite there are still may have some bugs.

Reflection

The most important things I learnt:

Throughout the process of acquiring new knowledge and work through the Portfolio, I have built for myself the mindset of programming when I need to use functions, ... This is one of the most important things that the developer should have for understanding the logical of the code, furthermore the developer can create the math algorithms to solve the problems in that circumstance. I have tried to write code as clean as possible in order to train me become a organise person, furthermore this skill can be helpful when I am working in the business and when I pass the code to him, he can quickly understand the code and keep doing what I have left.

The things that helped me most were:

Loops are the things that helped me the most when it keeps my code cleaner and more effective, make my code become shorter with the better presentation.

I found the following topics particularly challenging:

The most challenging for this course is Gosu because if I want to get C or higher, I must understand Gosu. I must go through all the resources in Portfolio to get to know about Gosu deeper and deeper so that I can go through hard exercises on Portfolio

I found the following topics particularly interesting:

I think the topic that is the most interesting for me is Python because the structure and the way of coding is quite similar to Ruby so that it can be easy to understand because I have learnt the fundamentally base of Ruby.

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

I feed I learnt C and Python well because it can help me in different circumstances because these 2 languages are widely used so that I can consider using to write program.

I still need to work on the following areas:

I still need to work on Coupling and Cohesion, Looping and a little bit of math because these concepts can help me to write coder better and more efficient. Using math and loops to create algorithms to solve the problem.

This unit will help me in the future:

This unit will help me to have a strong base of programming. I also can discover new things and and set up my mind become a mind of an engineer so that I can suffer through the problem easier. With a lot of exercise in this course, it helps me to learning from doing a lot and testing and lastly enjoy the results.

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

If I have chance to do this unit again, I will try to improve my Gosu's knowledge and custom programme because it is not perfect yet. I can do much better in the next time and will make the programme become more interesting.

Other...:

This course teach me how to study by myself when putting a lot of effort in my work to research many documents for learning and developing my skills, knowledge. These things can help me a lot in future and help me in my career