COS10009 – Introduction to Programming

Learning Summary Report

Ngo Cong Thanh (103433609)

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) |  | **✓** |  |  |

*Self-assessment Statement*

|  |  |
| --- | --- |
|  | Included (please tick) |
| Learning Summary Report | **✓** |
| Test 1 and Test 2 are Compete in Doubtfire | **✓** |
| Ruby programs that demonstrate coverage of core concepts | **✓** |
| A C program that demonstrates coverage of core concepts | **✓** |

*Minimum Pass Checklist*

|  |  |
| --- | --- |
|  | Included (please tick) |
| All Credit Tasks are Complete on Doubtfire | **✓** |

*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: 07/30/2021



# Portfolio Overview

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

I entered this unit with no prior programming knowledge and intended to get a credit. I accomplished all of the pass and credit grade activities. Have tried to finish some of D task but those are complicated for me.

I effectively showed all of the Unit Learning Criteria during the completion of my activities; while theoretically all of the tasks satisfy these outcomes, some do so better than others. The following items are mentioned below:

**Structured programming principle:**

- 8.1T – A ruby idea map of organized programming principles.

- 7.1P – Explaining where Sequence, Selection, Iteration, and Coupling may be found on my music player.

**Code reading and debugging techniques:**

- 7.2C, this was the most difficult part of the course for me since I spent hours looking over my code trying to figure out where I went wrong and how to correct it. Some of the problems were little, such as a missing end, but others were huge logic flaws inside the program.

- 10.1.1, I think this task is quite difficult for the students who don’t have any experience with the C programming language. I have to find out how to compile the code with gcc command and run the c program.

- I've never completed a program properly in any of my tasks; there have always been flaws in my code that I've had to troubleshoot.

**Create small programs:**

- 11.T – A very easy-structured program that writes out whether or not a name is stupid.

- 5.3C – In Ruby, develop a button that draws an outline of a box when the mouse is hovered over it.

**To break down issues functionally, use modular and functional decomposition:**

- 7.1P since there are five menu selections Each menu choice has its own linked functions, and in order to develop a working program, I had to break the problem down into its simplest form before creating the program.

- 9.1T Breaking down the software into its functions in order to discover where the program isn't operating properly, I was able to effectively fix the program by breaking the program down to its most basic form.

# Reflection

## The most important things I learnt:

The most important things I have learnt through this course is coding skill including programming language, debugging, etc… I have come into this course with just a little experience with programming design but through this course, I learnt some essential skills. I think that I have to advance more knowledge about this aspect.

## The things that helped me most were:

- My Peers, because we were all in the same boat, it was vital for me to speak with my peers and seek and occasionally provide advice.

- My tutor has been really helpful throughout this course, from basic inquiries to issues in my programs that I couldn't fix. In the early weeks, the way he taught the concepts was crucial to me knowing more about programming.

## I found the following topics particularly challenging:

- Gosu, Gem library, due to the scarcity of resources and the strange syntax

## I found the following topics particularly interesting:

- Type of Loops, how they essential to programming.

- Gosu and game design by gem library.

- Array and how can interact with storing data.

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

- Loops, owing to the lecture material but primarily to my tutor

- Arrays, based on the lecture notes, I had a rudimentary grasp of them, but my Tudor went into great detail about arrays and how to apply them effectively in my applications.

## I still need to work on the following areas:

- Gosu Ruby, I understand the fundamentals of Gosu and how to draw simple things, but when it comes to 7.2C, I'm having trouble exporting my tracks as a Gosu picture and tracking the album file.

## My progress in this unit was …:

Chart, line chart

Description automatically generated DoubtFire's methodology was fresh and puzzling to me from the start because I had never used it before. The development of duties in week 5 I expected that every job would be simple because the prior five weeks had not been tough. I was woefully unprepared for the week 7 assignments, and as a result, I soon fell behind.

## This unit will help me in the future:

This unit will undoubtedly benefit me in the future because I am pursuing a degree in Computer Science and will be taking Technical Software Development as a topic next semester, and I will only be expanding on the information I gained in Introduction to Programming.

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

I would have done all of the weekly activities on time, and I understand how vital it is to keep current with the course since you may easily fall behind.

## Synthetic the unit:

Synthetic spreadsheet for the unit:

A screenshot of a computer

Description automatically generated with low confidence

Link: <https://docs.google.com/spreadsheets/d/1T2N2Nc6N9cDSFx-i8cAbDW2h0UaBEaqJDmBS_mJNbdo/edit?usp=sharing>

## Other…: