

# COS10009 – Introduction to Programming

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## 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)				A

### *Self-assessment Statement*

	Included (please tick)
Learning Summary Report	✓
Test 1 and Test 2 are Complete 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*

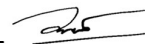
	Included (please tick)
HD Project included	✓
Custom project meets HD requirements	✓

### *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: Nguyen Thi 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.

I believe I should be awarded a High Distinction grade for COS10009 - Introduction to Programming based on my demonstrated mastery of the course material and my ability to extend well beyond what was required.

In completing the assignments for this introductory Ruby programming course, I not only met all the criteria for the Distinction grade by implementing additional functionality in the GUI Music Player, but I went above and beyond by completing the challenging Maze Search task. The Maze Search program showcased my ability to decompose a complex problem and design an efficient algorithmic solution using concepts like stacks and recursion.

On top of the course requirements, I challenged myself further by independently developing a custom Ruby program that incorporated file input/output, data structures, and object-oriented principles. This displayed my passion for programming and ability to self-direct my learning beyond what was taught.

My contributions to class discussions also exhibit a comprehensive understanding of core programming concepts like variables, loops, methods and classes. I assist other students when they have questions or problems and submit work of the highest caliber.

In summary, the depth of programming knowledge demonstrated, along with my willingness to continuously push myself beyond course requirements makes me a strong candidate for the High Distinction grade. I have thoroughly enjoyed growing my skills in Ruby programming through this introductory course and hope my passion and excellence are reflected in my grade.

## Reflection

### The most important things I learnt:

The most important things I learnt in this unit were the core concepts of programming like variables, data types, loops, methods, and classes. Understanding these building blocks will allow me to tackle more complex programming tasks in the future. I also learnt problem-solving skills - how to break down large problems into smaller logical steps.

### The things that helped me most were:

The practical coding exercises and assessments helped me the most to solidify my learning. I was able to apply the concepts covered in lectures by writing my own programs. The feedback from tutors also helped me identify areas needing improvement.

### I found the following topics particularly challenging:

I didn't find any particular topics too challenging, as the material was well-paced and the tutors were very helpful. However, object-oriented programming was more difficult to grasp compared to procedural programming. With more practice, I'm sure I'll become more proficient.

### I found the following topics particularly interesting:

The most interesting topics for me were GUI programming and algorithms like recursion. I enjoyed seeing my code come to life in graphical interfaces, and solving maze searches recursively was intellectually stimulating.

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

I feel I have a strong grasp of core programming fundamentals like variables, flow control, loops, methods, arrays, hashes, and classes. I can confidently write procedural Ruby programs of moderate complexity. My code submissions and exam results provide evidence of this.

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

Moving forward, I'd like to improve my skills with object-oriented programming and test-driven development. I will also work on enhancing the efficiency and organization of my code.

### This unit will help me in the future:

The programming skills I developed in this introductory course will be extremely valuable in later units and my career as a software developer. I now have a solid foundation to build upon.

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

If I did this unit again, I would try to complete the exercises much earlier. This would give me more time to attempt extension challenges for further practice. I would also participate more actively in the forums to assist other students.

### Other...:

Overall, this unit gave me a robust initiation into programming. I'm proud of the skills I've developed so far and feel well prepared to advance to the next stage of my studies. The knowledge and practical ability I gained will serve me well in the future.