



COS20007

Object Oriented Programming

Learning Summary Report

Tran Thanh Minh
103809048

Self-Assessment Details

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

Self-Assessment Statement

	Pass (D)	Credit (C)	Distinction (B)	High Distinction (A)
Self-Assessment			✓	

Minimum Pass Checklist

	Included
Learning Summary Report	✓
Test is Complete	✓
C# programs that demonstrate coverage of core concepts	✓
Explanation of OO principles	✓
All Pass Tasks are Complete	✓

Minimum Credit Checklist (in addition to Pass Checklist)

	Included
All Credit Tasks are Complete	✓

Minimum Distinction Checklist (in addition to Credit Checklist)

	Included
Custom program meets Distinction criteria & Interview booked	✓
Design report has UML diagrams and screenshots of program	✓

Minimum Low-Band (80 – 89) High Distinction Checklist (in addition to Distinction Checklist)

	Included
Custom project meets HD requirements	

Minimum High-Band (90 – 100) High Distinction Checklist (in addition to Low-Band High Distinction Checklist)

	Included
Research project meets requirements	

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 COS20007 Object Oriented Programming to a **Distinction** level.

Throughout the course, I have achieved this by completing all required tasks to achieve this score and with high level of proficiency and using the knowledge and skills to apply to the current context to create innovative and effective custom program.

In the custom program and other tasks, I have demonstrated my skills to implement to the program to make it effective and maintainable. I have tried to design a complex program but easy to be maintained and operated and also apply the OOP principles. I also have learned to design patterns and unit testing for the program to apply into my portfolio. I have shown a strong work ethic and commitment to the learning throughout the course and engaged in the outside course materials to gain more knowledge. I have gone above the requirements for the C to achieve the D score and demonstrate my ability to apply the Unit Learning outcomes to the programming challenges.

In conclusion, I believe that I have consistently demonstrated a high level of proficiency in apply my knowledge to achieve the Distinction level of competency. I am confident that the work presented in this portfolio have shown my ability to design, implement and testing the program, system against the OOP principles.

Task Summary

To demonstrate my learning in this unit, I would like the following tasks to be considered part of my portfolio:

- Draw UML diagram – I have shown in the custom program and the hurdle test.
- Draw sequence diagram – I have shown in the custom program.
- Explain terms of the programming languages – I have shown in 7.1P
- Complete the all the requirements for the portfolio (Swin adventure, P and C tasks)
- Build another program – which is the custom program.
- Using Splash kit to create program has UI – which is the C tasks used Splash kit
- Write the document to explain the custom program – I have done in the Distinction tasks.

Reflection

The most important things I learnt:

- The four basic principles of object-oriented programming (abstraction, encapsulation, inheritance, and polymorphism).
- How to create classes and objects in C#.
- How to use inheritance and interfaces to create more complex class hierarchies.

The things that helped me most were:

- The offline tutorials and resources provided by the course.
- The feedback from my tutor on my test.
- The opportunity to practice coding through the assignments.
- Keep researching web that teach c# dotnet and learn from it

I found the following topics particularly challenging:

- Understanding how to use interfaces effectively so that I can easily expand the program.
- Creating complex class hierarchies for later creating UML diagram and sequence diagram
- Differentiate between interfaces and abstract because sometimes I still struggle with it.
- Design a full program with OOP concepts because with me design the full program still a challenge and may cause unexpected errors while designing it.

I found the following topics particularly interesting:

- I found classes and inheritance interesting because they allowed me to create complex data structures that were easy to use and maintain. In addition, I allow the program to easy to extent to be bigger.

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

- Object-Oriented Programming (OOP) concepts such as Abstraction, Encapsulation, Inheritance, and Polymorphism to apply to the required scenarios
- C# .NET programming language
- Visual Studio 2022 IDE

I still need to work on the following areas:

- Applying OOP concepts in real-world scenarios
- Debugging code more effectively

My progress in this unit was ...:

- I consistently submitted work and engaged with my tutor throughout the course. I think this helped me learn the material more effectively and get a better grade in the unit. However, I struggled with debugging code at times which affected my overall learning and final grade in the unit.

This unit will help me in the future:

- The things I learned in this unit will be valuable for me in future programming courses and projects. For example, understanding OOP concepts will help me build more complex systems and applications.

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

- I would spend more time practicing applying OOP concepts in real-world scenarios and debugging code more effectively.
- I also will try to extent my challenges a little further by doing the HD tasks.

Other...:

- Overall, I enjoyed learning about OOP concepts and C# .NET programming language. I found Visual Studio IDE to be a helpful tool for developing applications. I'm excited to continue learning about programming and building more complex systems!