A chalkboard with text on it

Description automatically generated





This will be the cover of your portfolio…make it nicer than this! Include unit name, your name, student id…then delete this text!

Son Nguyen  
1032324103

# 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 |  |  |  |  |

Self-assessment statement

|  |  |
| --- | --- |
|  | Included |
| Learning summary report |  |
| Test is complete in Canvas |  |
| C# programs that demonstrate coverage of core concepts |  |
| Explanation of OO principles |  |
| All Pass Tasks are complete on Canvas |  |

Minimum Pass checklist

|  |  |
| --- | --- |
|  | Included |
| All Credit Tasks are complete on Canvas |  |

Minimum Credit checklist (in addition to Pass checklist)

|  |  |
| --- | --- |
|  | Included |
| Distinction Tasks (other than Custom Program) are complete |  |
| Custom program meets Distinction criteria & video submitted |  |
| Design report has UML diagrams and screenshots of program |  |

Minimum Distinction checklist (in addition to Credit checklist)

|  |  |
| --- | --- |
|  | Included |
| 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: **Son Nguyen**

# Portfolio overview

This portfolio includes work that demonstrates that I have achieved all Unit Learning Outcomes for **COS20007 Object Oriented Program** to a **Distinction** level.

Object Oriented Programming is one of the subjects I have the pleasure to take on my way towards achieving my degree in Bachelor of Computer Science. During my time throughout the course, I have learned a lot as well as reinforce the knowledge imparted to me through other courses of similar pedigree. However, there was without challenge; therefore, I am here today not only to reflect but to self-assess myself on my outcomes.

For the Pass grade, we would have to demonstrate a good understanding of the topic through the various lab tasks we are to partake in, from Hello World to our drawing shape / our early SwinAdventure to now. I believe I have demonstrated that I have understand the foundation of Object-Oriented Programming albeit maybe slower than some but my work to my believe was up to par and I would believe my instructor would think so as well.

Credit grade is where some of my fundamentally flaw show, there has been some repetition of error, and I would admit I am not perfect but my consistency and hard work at least from my knowledge has allow me to display a high level of competency throughout COS20007. Through the completion of the Credit Task which was a deeper dive into our SwinAdventure as well as DrawingShape program. I believe I have exhibited a depth of understand and application beyond the basic requirements, showcasing critical thinking and analytical skills in order to be granted the Credit Grade.

To achieve a Distinction, I have participated in the level custom design where we would be building a program using the 4 principles of Object-Oriented Programming which was **abstraction, encapsulation, inheritance, polymorphism** which has resulted me into building my own Chess Game , the procedure was hard – but I got the fundamental down and was manage to create something that I would deem to the degree of Distinction using my prior knowledge taught to me in this course and through my experience of creating and updating SwinAdventure.   
  
To reach the pinnacle which would be High Distinction, I would have to further the program as well as a Research Project in relation of Object-Oriented Programming. Both require a high degree of understanding as well as dedication/time commitment towards it as it has to demonstrate an understanding of the topic at a high level. I am sure I have displayed this in my work but not too sure due to the various experience of people of higher pedigree.

# Reflection

The most important things I learnt:

I believe the most important things I learnt were the concepts of **abstraction, encapsulation, inheritance and polymorphism**. Although this was covered or at least some of them were in my previous class (C++). I was able to practice and learn fundamentally why these things are important and how they contribute to making the code more modularity and increase its reusability.

The things that helped me most were:

**Time spent** – I believe the time spent revising as well as time spent researching was worthwhile due to the fact that it allows me to fully digest what I learnt  
**Material** – I used a lot of the material provided to give myself an outline of what was required to be done , although some of my approach are a bit different, it was helpful for me to break down the concept and understand it in my own terms  
**Instruction in the lab task –** Obviously most lab task would provide the same hand holding experience for coder to complete but I feel like for OOP , there was just enough hand holding where the instruction was given but it isn’t babied for us to find the answer in our code rather than giving us it outright

I found the following topics particularly challenging:

At first it was **inheritance,** but it was due to me overthinking it making it more challenging than it has to be – especially during my ChessGame program.

I found the following topics particularly interesting:

**Polymorphism** – enjoyed it because its make my work as a future programmer a lot easier. The whole OOP was interesting in itself and I would love to develop my skill through my own project down the line but I would have guess polymorphism would be what I choose to be the most interesting to me.

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

I can’t particularly pinpoint one exact points, so I like to say I have handle most of the topics/concept to a sufficient point that I have understand

I still need to work on the following areas:

Just coding more in general , like I have spent my fair share coding through all the lab tasks , although I understood how concept should flow ; they don’t efficient flow out when I type which could be why I take a long time for most of my lab task

This unit will help me in the future:

As my aspiration to partake in the Software Engineer stream, this topic would assist set a foundation for myself through principles of design/implementation and allow myself to create program which has increase scalability , robust through the concepts I learnt throughout the course

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

Interacting with my instructor more would be something I do differently, as well as not falling behind early due to outside forces. All of these would probably equip myself for a better grade and less stress.

Other…:

I really enjoy DrawingShape program and was able to morph into different settings later on through my own experimentation. A lot of skill assist me understand this better that I was later able to apply to the new DrawingShape program I work on my alone time