



# COS20007

## Object Oriented Programming

Learning Summary Report

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## 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	✓ (94%)

### 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: **Nur E Siam**

## Portfolio Overview

This portfolio includes work that demonstrates that I have achieved all Unit Learning Outcomes for COS20007 Unit Title to a **Pass** level.

I have learned Object Oriented Programming in this unit based on the language C#. To achieve a pass level, I have completed all the pass tasks using the object oriented programming concepts (abstraction, encapsulation, polymorphism, inheritance). I have learned to code drawing program which make shapes like circle line square also learned how to change the background color by giving commands from single keypress from keyboard and mouse clicks.

The major aspect of this unit was completing SwinAdventure tasks where I get to know to do debugging, testing and finally, compiling them into a console application.

Another interesting part that I came across while doing this unit was how to understand UML diagram and do coding according to that, the prime example for this would be our semester test.

Overall, I learned a lot in this unit and I feel confident about deserving a pass in this unit.

## Task Summary

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

- T1-1 – Semester Test Fix and Resubmit: Complete
- 1.1P – Preparing for Object Oriented Programming: Complete
- 1.2P – Object Oriented Hello World: Complete
- 2.1P – In Person check-in 1 – Tools: Complete
- 2.2P – Counter Class: Complete
- 2.3P – Drawing Program – A Basic Shape: Complete
- 2.4P – Case Study – Iteration 1 – Identifiable Object: Complete
- 3.1P – Clock Class: Complete
- 3.2P – The Stack and Heap: complete
- 3.3P – Drawing Program – A Drawing Class: Complete
- 4.1P – Drawing Program – Multiple Shape Kinds: Complete
- 4.2P – Case Study – Iteration 2 – Player Items and Inventory: complete
- 5.1P – In Person check-in 2 – Drawing program: Incomplete
- 5.2P – Case Study – Iteration 3 – Bags: Complete
- 5.3C- Drawing Program - Saving and Loading-complete
- 6.1P – Case Study – Iteration 4 – Look Command: Complete
- 6.2P-Key Object Oriented Concepts- Complete
- 7.1P – Case Study – Iteration 5 – Tying it Together: Complete
- 9.1p-In Person Check-in 3 - Case Study- complete
- 11.1P – Clock in Another Language: Complete

## Reflection

### The most important things I learnt:

This course, in my opinion, was a fantastic place to start learning about how objects function in programs. As the semester went on, I was able to understand more and more about the concepts of OOP. To me the most important thing would be learning how to break UML diagram and how to turn your codes into a UML diagram. Learning debugging and using splashkit.

### The things that helped me most were:

In my opinion, the thing that helped me the most was to have a clear communication with my tutor. He was there to explain everything to me in details giving me ideas about coding telling me what to do and what not to do, helping me if I got stuck fixing my technical issues as well as giving me feedback on every work before submitting so that I can be as flawless as possible.

### I found the following topics particularly challenging:

The topic that challenged me the most was installing all the software due to some reason I was running into problems apart from that Nunit testing was a total new concept to me which took me quite a few try before mastering that.

### I found the following topics particularly interesting:

By far in this unit I found debugging as the most interesting thing in this unit. It was quite fun how to fix my code in a way instead of looking at my codes for hours and found out that I am missing a colon or a coma.

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

Using splashkit to make drawing program that can draw multiple shapes the way I want was pretty interesting to me I did my best to be a pro at it and somehow I was able to finish a Credit task on that. 2.3 3.3 and 4.1 helped me to get a good grasp on how to use splashkit.

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

I need to work on more project like Swinadventure which really helps me to get better at coding giving me broad understanding of OOP. Also I would love to work more with UML diagrams.

### My progress in this unit was ...:

I have learned a bit about OOP when I went to visit my country this winter vacation, which helped me to cruise through all the pass task task with in the 1<sup>st</sup> week of September and I was confident enough to aim for D instead of P. Then tragedy strike one after another at 1<sup>st</sup> in the middle of September my my Grand father died which threw my mentality to a total chaos, he was like a role model in my life after that one of my friend stole my work 5.1p for which I could not able to complete all pass task, following to that at the day of my semester exam my aunt died and I was totally broken by that time and my mental insanity was at it's peak just because I finished doing the code before receiving that news. So, some how I managed to pushed myself to complete the task 2 and submit my test. At this point of this I totally given up on my dream of going for a D and I settled down for a P as I also needed to finish other units assignment as well and it started to pile up on me due to getting some extension for completing some of the assignments because of my mental health condition. I am still glad that I was able to complete rest of the pass task and fix some of that in time and got it marked off.

So far for not only for this unit but also for this whole semester it was roller coster ride for me. Since I was able to complete all the other pass task including a Credit task and passing the semester test even though I got a fix resubmit I believe that I still deserve a pass after dealing with all those problems that I have faced so far.

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

As a computer science student majoring in software development this unit will always help me in the near future. OOP is a core concept in software development. Because of this unit in the future I will be able to learn other concepts easily.

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

If I were to do this unit again I will focus learning doing projects more often and have more fun with this unit without dealing with my mental anxiety.