



COS20007

OBJECT ORIENTED PROGRAMMING

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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	x			

Self-Assessment Statement

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

Minimum Pass Checklist

	Included
All Credit Tasks are Complete on Doubtfire	

Minimum Credit Checklist (in addition to Pass Checklist)

Learning Summary Report

	Included
Distinction tasks (other than Custom Program) are Complete	
Custom program meets Distinction criteria & Interview booked	
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: **Denver Lacey**

Portfolio Overview

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

The tasks that I have completed for this portfolio documents how I have demonstrated the principles of object oriented programming.

My custom project demonstrates abstraction. The Tokenizer abstracts away the source code as a raw string of characters so that the Parser can operate on slightly pre-processed globs of data that are easier to process.

I've demonstrated an understanding of inheritance and polymorphism in the Semester test task 8.1, and in the drawing program task 4.1. These programs demonstrate classes inheriting from other classes and using instances of those classes in a polymorphic way to achieve a more flexible and extensible program.

Task 3.2 demonstrates the use of unit tests to test and debug programs and protect against regressions.

In task 6.2 I demonstrated my understanding and ability to create textual descriptions of object-oriented solutions to complex programs.

The work that I have completed during this unit I believe shows that I have learnt how to write well designed and complex programs using the principles of object oriented programming and my ability to test and debug my solutions to the problems that I encounter when implementing these solutions.

Reflection

The most important things I learnt:

I didn't learn exactly what I thought I would during this unit. I learnt more about abstractions and how to write programs so that they are cohesive and lowly coupled. In addition, I've learnt a lot about my abilities as a student and the things that I need to work on to improve to achieve the results that I want.

The things that helped me most were:

My prior knowledge of programming and my completing the "Introduction to Programming" unit really helped me pass this unit despite my low productivity. Without this knowledge I'm not sure I would have been able to catch up to the deadlines of the unit in order to pass.

I found the following topics particularly challenging:

I found it particularly challenging to model my programs into classes well for bigger programs. It can be quite difficult to know what will produce the best solution and design at the beginning when you are just starting a project. Figuring out what classes you need isn't so hard but how they relate and interact to create a more sophisticated program was more difficult to think through.

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

I think I've learnt how to use inheritance and polymorphism quite well. The drawing program, the semester test and my custom project shows my ability to utilise them to create working software.

I feel that I became fairly good at drawing up UML diagrams to describe programs. Task 6.2 would be a good demonstration of this fact.

I feel that I have become proficient in using Visual Studio to write, debug, test and run my programs. I can comfortably use the IDE and put it all under version control using GitHub.

I still need to work on the following areas:

I think I still need to somewhat work on de-coupling programs when the task is complicated. In my custom program the way that the Tokens gets parsed by using a lookup table meant that the Parser and Tokenizer had to kept in sync with each other meaning that when adding new tokens I had to change the lookup table.

My progress in this unit was ...:



This graph clearly shows that although my progress was pretty good the first few weeks, my productivity in the middle of the unit was near completely stagnant. I struggled to stay motivated to apply myself in this unit which has resulted in my having to cram in the bare minimum amount of tasks to pass this unit which is not the position I'd hoped to be in with this unit.

This unit will help me in the future:

[How will the things you learnt relate to the rest of your studies, and career. What have you learnt that will be valuable for you in the future?]

The things I've learnt in this unit will let me better gauge my abilities as a student and what I should aim for to stay on top of my studies. The things I've learnt about Object Oriented programming will help me write better quality software that I can use to make better programs for future units and in any future career positions that I find myself in.

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

If I were to take this unit a second time I would emphasise a consistent productivity level throughout the unit. This time around I lacked the drive to complete tasks which left me with a month of time gone with near nothing to show for it as far as this unit is concerned which ruined any chance I might have had to really excel in this unit which I feel I could have done if I hadn't slouched.

Other...:

This unit has shown me how important it is to maintain motivation and good working habits. At the beginning of this unit I tried to work hard and get ahead but by doing so I burnt myself out and failed to maintain a consistent stream of task completions.