COS30031 Games Programming

Learning Summary Report

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Self-Assessment Details

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Pass (P) | Credit (C) | Distinction (D) | High Distinction (Low HD) | (High HD) | |
| Self-Assessment (please tick) | x |  |  |  |  |

*Self-assessment Statement*

|  |  |
| --- | --- |
|  | Included? (tick) |
| Learning Summary Report | x |
| Time-boxed Demonstration Activity (Lab Test) in Doubtfire |  |
| Complete Pass (“core”) task work, approved in Doubtfire |  |

*Minimum Pass Checklist*

|  |  |
| --- | --- |
|  | Included? (tick) |
| Additional non-core task work (or equivalent) in a private repository and accessible to staff account. |  |
| Spike Extension Report (for spike extensions) in Doubtfire |  |
| Custom Project plan (for D and/or low HD), and/or High HD Research Plan document in Doubtfire (optional) |  |

*Credit Checklist, in addition to Pass Checklist*

|  |  |
| --- | --- |
|  | Included? (tick) |
| Custom Project Distinction Plan document, approved in Doubtfire |  |
| All associated work (code, data etc.) available to staff (private repository), for non-trivial custom program(s) of own design |  |
| Custom Project “D” level documents in Doubtfire, to document the program(s) (structure chart etc) including links to repository areas |  |

*Distinction Checklist, in addition to Credit Checklist*

|  |  |
| --- | --- |
|  | Included? (tick) |
| Custom Project “HD” level documents in Doubtfire, to document the program(s) (structure chart etc) including links to repository areas |  |

*Low High Distinction Checklist, in addition to Distinction Checklist*

|  |  |
| --- | --- |
|  | Included? (tick) |
| High Distinction Plan document, approved in Doubtfire |  |
| High Distinction Report document, in Doubtfire, which includes links to repository assets |  |
| All associated work (code, data etc.) available to staff (private repository) for your research work |  |

*High High Distinction (Research) Checklist, in addition to D/Low HD Checklist*

# Introduction

This report summarises what I learnt in COS30031 Games Programming. It includes a self-assessment against the criteria described in the unit outline, a justification of the pieces included, details of the coverage of the unit’s intended learning outcomes, and a reflection on my learning.

# Overview of Pieces Included

This section outlines the pieces that I have included in my portfolio…

*Describe the pieces you have included in your portfolio.*

*This should contain a* ***list*** *of all the pieces, along with a short statement of* ***why*** *each piece was included.*

* In this unit, I’ve learned about data structures and programming patterns and optimization skills - ways to optimize my program. All tasks included are to demonstrate this.
* I’ve also included 2 pieces from my side project, one is a discord bot (created in Js) to demonstrate my understanding of task 13 – Command pattern, the other is a health script for components (created in C#) to demonstrate my understanding of task 21 – Messaging system. Since I was not able to complete these tasks on time, these pieces should hopefully be enough to demonstrate my already understanding of the concepts.

# Coverage of the Intended Learning Outcomes

This section outlines how the pieces I have included demonstrate the depth of my understanding in relation to each of the unit’s intended learning outcomes.

## ILO 1: Design

*Discuss game engine components including architectures of components, selection of components for a particular game specification, the role and purpose of specific game engine components, and the relationship of components with underlying technologies.*

* *Please refer to Doubtfire’s rationale*

## ILO 2: Implementation

*Create games that utilise and demonstrate game engine component functionality, including the implementation of components that encapsulate specific low-level APIs.*

* *Please refer to Doubtfire’s rationale*

## ILO 3: Performance

*Explain and illustrate the role of data structures and patterns in game programming, and rationalise the selection of these for the development of a specified game scenario.*

* *Please refer to Doubtfire’s rationale*

## ILO 4: Maintenance

*Explain and illustrate the role of data structures and patterns in game programming, and rationalise the selection of these for the development of a specified game scenario.*

* *Please refer to Doubtfire’s rationale*

# Reflection

## The most important things I leant:

The name of the patterns and how I’ve already learned these, I just didn’t know what they were called and how beneficial they are

## The things that helped me most were:

Tutor, cpp reference, Stack Overflow

## I found the following topics particularly challenging:

Graphs, Engine vs Framework

## I found the following topics particularly interesting:

SDL related tasks

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

Collisions, Messaging, Graphs, Data structures

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

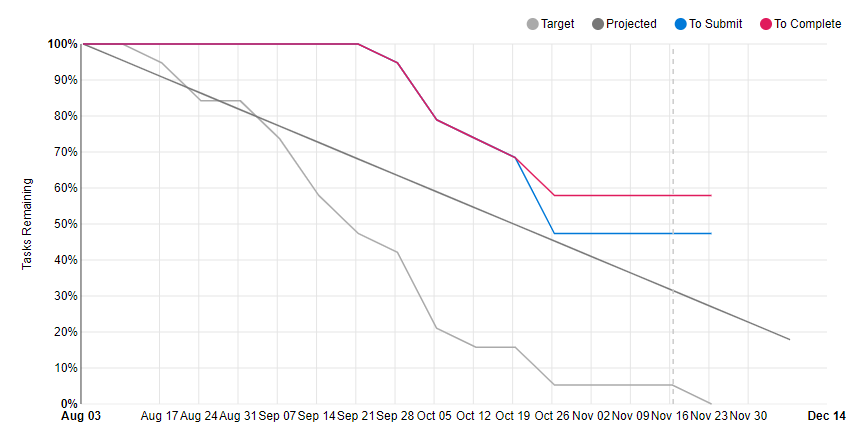
Task specific:

Messaging system: I still don’t have a good solution for dependency issues between the container class containing the references of the receivers while the receiver require the container class to subscribe themselves

General:

Commit messages: I’ve tried

## My progress in this unit was …:



## This unit will help me in the future:

My up coming capstone for programming degree.

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

I had a capstone unit for my games degree, so I pretty much left this unit no time for completion. If I were to do this unit again, I’d definitely not do it alongside a capstone unit, or if I did, include only these 2 in the same semester and no other units.

## Other…:

# Conclusion

In summary, I believe that I have clearly demonstrate that my portfolio is sufficient to be awarded a …. grade.

It’d be a fair conclusion to say what I’ve submitted here won’t be enough to even achieve a pass, but I hope to show with my other work that I’ve grasped the concepts of these topics, I just didn’t have time to complete them to this unit’s standards.