COS30041 – Creating Secure and Scalable Software

Learning Summary Report

Le Bao Duy Nguyen (102449993)

Final Portfolio Submission Due

Pass / Credit: Week 13, Mon, 9:00am

Distinction / High Distinction: Week 13, Tue, 9:00am

Portfolio Interview Dates

Distinction / High Distinction: Week 13-14, TBA

[Optional, but Strongly Recommended] Tutor's Feedback on LSR

Timing of the Feedback process and submissions

Grade / Description	Pass / Credit	Distinction / High Distinction
LSR only [9.9]	Week 12, Tue (2 June), 09:00	Week 12, Wed (3 June), 09:00
Tutor's final feedback	Week 12, Thu (4 June), 17:00	Week 12, Fri (5 June), 17:00
Final Portfolio	Week 13, Mon (8 June), 09:00	Week 13, Tue (9 Jun), 09:00

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 (please tick)		x		

Self-assessment Statement

	Included (please tick)
Learning Summary Report	x
All Pass Tasks are Compete in Doubtfire	x

Minimum Pass Checklist

	Included (please tick)
All Credit Tasks are Complete on Doubtfire	x

Minimum Credit Checklist, in addition to Pass Checklist

	Included (please tick)
Interview booked	
Software proposal is “Complete”	
Your custom-built Enterprise application of your own design meets Distinction criteria and standards	
Software Design doc and Software Test report of your custom-built Enterprise application meet Distinction criteria & standards	
Other pieces (please specify)	

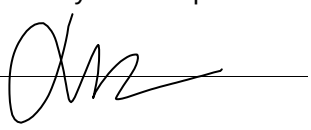
Minimum Distinction Checklist, in addition to Credit Checklist

	Included (please tick)
HD Research Proposal is “Complete” on Doubtfire	
A Research report and associated pieces (e.g. source code, if any) that meet HD criteria and standards	
Other pieces (please specify)	

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: 

Portfolio Overview

This portfolio includes work that demonstrates that I have achieve all Unit Learning Outcomes for COS30041 Creating Secure and Scalable Software to a **Credit** level.

For the Credit level, I have completed all the P and C tasks required had them marked “Completed”.

I have completed the tasks strictly followed the UML diagram given, together with my knowledge of the primary principles.

Testing is a crucial and important task of this unit. A program can only be verified completed if its testing is successful, to ensure there’s no problem that may occur. By working each task thoroughly with debugging sessions, problems were recognised and solved accordingly.

There are many tasks completed in this unit, but the most important to me are the 5.1-2 and 7.1-2 tasks where actual web applications with its own GUI designed. Furthermore, encryption and different APIs were taught during these tasks, making myself become more familiar with how to design a secure and scalable application.

Reflection

The most important things I learnt:

The most important thing I learnt from the unit is the method, tool and language to create a secure yet scalable program. I learnt how to develop web GUI, how to encrypt input and output data and how data is stored and processed in the system through different tiers.

The things that helped me most were:

In this unit, aside from the help of my tutor and school resources, I have also found helps from other students and online resources. There were tasks that I struggled a lot, but with time and effort I managed to push it through.

I found the following topics particularly challenging:

The task where it asks to work around SHA-256 encryption was quite challenging. Initially my device could not operate around that encryption and encountered error when trying to log in with user's credentials.

I found the following topics particularly interesting:

Although SHA-256 was quiet challenging, it was also interesting at the same time. Because cyber security is such an importance nowadays, making a secure software is becoming such a demanding requirement. 7.1-2 also helped myself learn a lot about other encryptions, as well as how credentials are stored and hashed using APIs.

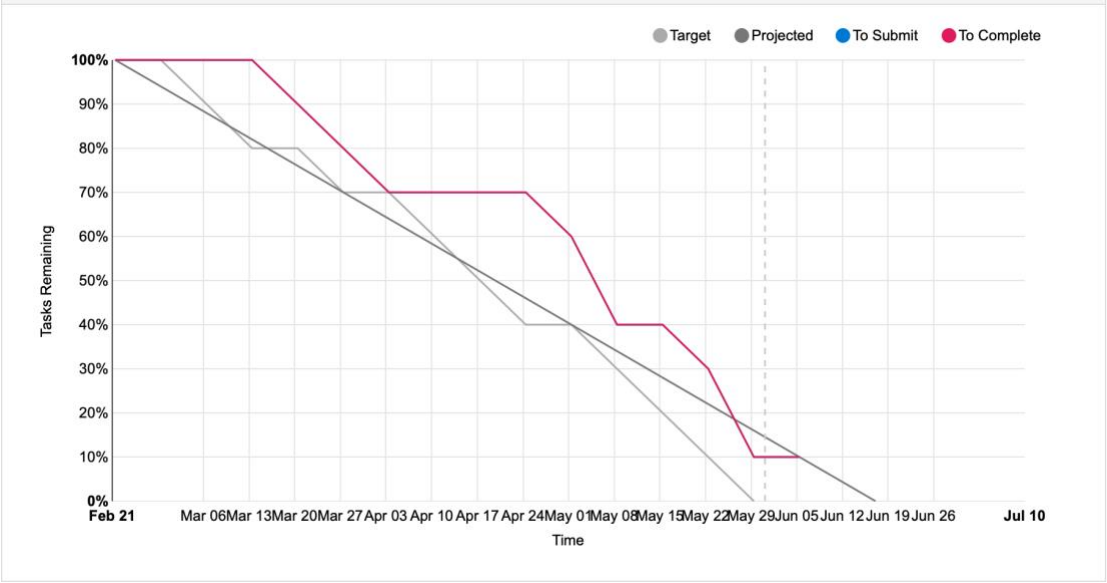
I feel I learnt these topics, concepts, and/or tools really well:

I feel I learnt how to cooperate between java and xml in NetBeans well. Before did not have any prior knowledge of java or how to create a web using this language. But creating a web application using these methods is very interesting and worth learning.

I still need to work on the following areas:

I still need to work on how to encrypt data using different methods. Aside from that, creating web pages with more interesting-looking GUI will also be a plus.

My progress in this unit was …:



I followed the due dates for each unit pretty well, most tasks were done before the deadline. Doing so helped me get enough time to redo the task if given requirement and sufficient feedback.

This unit will help me in the future:

This unit will help me set up my knowledge of the basics of creating a software, either personal or business. It also gains me some knowledge if I ever work in a similar topic.

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

If I did this unit again, I would definitely try to push my limits and go for D/HD. During this pandemic time, I found myself not having enough support since online classes were hard to follow at times. But also, I would need to focus on myself more and tackle more advanced tasks.