General Reflections on:

Units 1-6

I learnt about the differences between software architecture and software design. Introduced to regulations (OWASP, ISO, PEP8 etc.)

Delved deeper into the importance of software architecture and security; and learnt about the CIA concept (Confidentiality-Integrity-Availabilty) and the questions of authorisation, authentication and non-repudiability.

Looked into the importance of secure coding, security vulnerabilities, and security issues with Python (and especially with Flask)

To check this while doing a project in Flask

Got an introduction to Secure Scrum, agile technologies, UML Modeling and patch management. Discover the history of programming

For a non-technical person, it's interesting to note that computer science (CS) courses are not only about coding, software development. Before enrolling in this course, I never realised that CS is not purely ' technical'.

Found regular expressions/regex really interesting. Even went on the website 'Maths is fun' to play the Tower of Hanoi game. Introduced the game to my son - he loved it.

check how to use regex in a Digital Humanities project

Testing in Python is an important part of software development. I tried to do the activities, and I learnt a lot about the different testing libraries. I really enjoyed working on pylint, flake8, etc.

I was very interested to learn more about this, and I even went to find out about testing tools, discovered 'radon' to test cyclomatic complexities etc. Pytest was not in the course syllabus, but I'll try to use it.

Units 7-11

I went through the readings about operating systems, virtual machines, and distributed systems. We were asked to create an interactive shell with cmd in python, and I watched a few videos to be able to do the coding activities. I liked the chapter on cryptography, and did the activities (I used the codes that were on tutorialspoint.com.) I also learnt a lot about the EVOLUTION OF SYSTEMS ARCHITECTURES: from basic architecture (client-server), mobile agents, SOA to Microservices

Since the classnotes were well-structured, I was able to follow without any problems. However, I encountered a few issues: i) I had some difficulties applying the concept of ontology, so I spent too much time on this activity (unit 10), and I didn't even complete it. I started lagging behind, and I have not yet done unit 11 and unit 12!!! Juggling with one's personal, professional (change in our working schedules due to Covid in October 2021. A colleague also had Covid and I had to take her workload) and student life is not easy. The Christmas break saved me as I could catch up and work on the assignments. But, the cyclonic weather conditions during the months of January and February are not helping. Hopefully, there won't be any power cuts: I still have to catch up on Unit 11 and Unit 12 before the 21st February 2022.

To read more on ontology, faceted data, and to complete Units 11 and 12.

My Coding abilities

My main problem is coding by myself, and even if I watch tutorials online (which I did a lot), I always seem to get bugs. In fact, creating an app on one python file is fine, but linking different files.py are complex... My main objective will be to try to code by myself from now on. A classmate, Michael Botha, has advised me to join some courses offered by the Python Institute. I'll definitely do it.

Personally, I think that there should be more hands-on activities on coding. It's true that there are many free online courses on Python Programming, but maybe having a weekly practical class, even with the UoEO Student Support would be helpful (especially for those who are new to coding). Practical work on how to create sprints in Secure Scrum would be helpful for future work.

Team Work and Individual Work

Working in a team is not often easy, especially if you have to deal with a toxic Team Member. We are all from different time zones, and one of the Members of our team was often absent, saying that he has misunderstood the time. This was getting annoying as we had created a WhatsApp group, and all timings were clearly listed (with the name of the person next to the time in the country). He did not submit any work at first, always saying he was not good in the UML diagrams etc. He got angry when I complained to the tutor. It seems a bit childish to fight. We talked afterwards, and he helped in writing the security vulnerabilities table. We thought he was going to help in the coding section. However, about two weeks before the submission date, he took a sabbatical leave and he did not submit anything to the team folder. Fortunately we were a group of 3, and I was lucky to have Thien Liu as teammate. It was a pleasure working with Thien. He was always smiling when we chatted online. Helpful and supportive, he worked very hard for the team, sharing all documents he had. He was also very understanding: I'm not good in programming, and I just sent the codes I was working on. He checked, reworked them, and without him, the project would not have been completed on time.

There were many things to be done in this module, and working individually would have been difficult. We all know the advantages of team work. However, I wonder if we should not get a short training/ talk on how to work in a team too. Next time, I think it would be better to write down the role of each Member (but we did it - we distributed tasks etc.)

If I have to evaluate myself as a Team Member, I'll say I'm cooperative and resilient. Even if I don't know how to do something, I will try. For the first assignment (design document), Thien and I did most of the work. For the second assignment (development - creation of the website), I followed a step-by-step course on YouTube(by Corey Schafer). I worked on the testing, cryptography, preparation of the ReadMe document, the demonstration document, searching for notes, ideas etc. Of course, Thien checked whatever was written and gave very precious advice. He spent a few hours helping me create a virtual environment (but there were permission issues on my laptop. I don't know what Thien thought of me, but I was lucky to have him in the team.
Personally, I think I did not help a lot in the coding part. I'll have to get better at coding with Python.