Unit 7 - Reflection:

This was the hardest week since the beginning of this module, Unit 7. From the lecture cast, Debugging/Error Handling and Data Structures, a great starter for the upcoming learnings, I have covered important research in driverless cars, robotics, autonomous vehicles, data structure, implementations and storage data. This unit has given me valuable knowledge and skills for developing high-quality code and efficiently organising and processing data.

In addition to the theoretical understanding gained, I have also engaged in practical ePortfolio activities and hands-on coding exercises. This activity was the real challenge and a crucial piece of the study which was to discuss how data structures support object-oriented development and give examples of three different data structures to contextualise my response. The second part of the activity was to create a nested dictionary of data on cars within a Car class; extend this program to work with the dictionary by calling the following methods: items(), keys(), and values(). In my research, I reached a challenging point where I had to read an article by Kampffmeyer & Zschaler (2007) and create a program that recommends design patterns based on user input. This involved using a constructor to initialise attributes and assign values to variables based on the user's requirements. It was an intense but rewarding experience. These activities have allowed me to reinforce my learning and provided opportunities to showcase my progress through e-portfolio submissions.

The knowledge and skills acquired in this unit are valuable for developing high-quality code and efficiently working with data. I must continue practising and applying these concepts to strengthen my abilities further.

Looking ahead, the content covered in this unit will benefit the summative assessment in Week 11, where I can demonstrate my understanding of system design.

Unit 7 has given me a solid foundation in debugging/error handling, data structures, and data search. These skills are valuable for this course and applicable to real-world programming scenarios. Continuing practising and explore these concepts further are important to enhance my coding and data processing proficiency.