

OOP_PCOM7E September 2022 Object Oriented Programming

Unit 12 Summative Assessment: e-Portfolio Submission

Evaluation of final project in weeks 7 and 11

Assignment Details

As a learning and development e-portfolio, specific requirements for what should be included in your e-portfolio are detailed in the “**Module E-Portfolio Learning Activities**” section. Elaborating on the requirements and the applicable grading criteria (please see the full outline on the Module Resources page), your e-portfolio should consist of:

- Your answers to and outputs from exercises carried out during the module, including all your coding scripts and system designs. Aim to showcase at least 1 artefact from each unit. (Application of Knowledge and Understanding weighted at 10%, Independent working weighted at 10%)
- Your analysis of the data/information gathered in the module, as well as information from applicable contributions to the collaborative discussion forums (Application of Knowledge and Understanding weighted at 10%)
- **Your evaluation of your final project in weeks 7 and 11** (Independent working weighted at 10%).
- Reflection on (Criticality weighted at 40%).
 - Object-Orientated Programming based on what you have learned in this module.
 - Your work in the module.
 - The impact on your professional/personal development.

Evaluation of assignments in weeks 7 and 11: System design and System Implementation

The assignments in weeks 7 and 11 require us to (1) design three operations of a driverless car and (2) implement such design as to coding using Python. The main objective of these two assignments is to employ the software development methodology of object oriented programming. This statement represents a self-evaluation of the assignments for future enhancement purpose.

The assignment is logically separated into two parts: the design phase and the implementation phase. Both phases are equally important as the first phase set out the user requirements, define the object, formulating methods/tasks to be designed and digging out their relationship and how they interact with each other. These relationships and flow of information are to be documented in standardized diagrams which will be used the second phase.

Honestly the diagrams that produced in the first assignment are not quite correct and a few elements in such diagram are missing. Following the comments from tutor, the diagrams have been fine-tuned and such diagrams are helpful in developing the final coding. The process makes me aware of the importance of scope definition and preciseness of requirements setting.

The implementation phase is related to code using class and object. Test data are input and the coding are tested and debugged.

One of the techniques that I have learnt is how to arrange the codes. In order to facilitate code reading, my codes are separated into three parts: (1) Classes definition (2) databases setting (test data) and (3) the main program with functions.

The code is catered for a real-life scenario which means that exceptions are expected. For example, when the system identify a passenger is a child and according to safety requirements, this passenger cannot sit on a front seat. Exception is allowed in this case, by the driver since in real-life, the seat may be occupied by an under-weight or it is a pet or an article (i.e. non-human) occupying the seat. The same exception is also allowed when checking if a seating belt is buckled or not.

Throughout the development of the software, I gain confidence in code writing and it is important for me to continue my journey to convert to industry of IT.