Unit 3: Unified Modelling Language (UML)

Welcome to Week 3. This week, we will gain exposure to the Unified Modelling Language (UML). This is a standardised toolset to represent software systems on paper prior to their conversion into code.

In this unit we shall:

- Be exposed to the common syntax used by the UML.
- Explore the major UML models which are used throughout the object-oriented analysis, design and development process.
- Design UML models to represent aspects of specific software systems.

On completion of this unit you will be able to:

- Recognise the syntax used to design UML models.
- Distinguish between the UML models which are applicable at various stages of the Software Development Life Cycle (SDLC).
- Develop UML models using open-source tools.

The UML content this week is important in support of the design document that will be submitted in Week 6. The UML models will be used to design the software system on paper prior to its implementation in Python.

Lecturecast | 1 hr

In this lecturecast, you will:

- Describe the common syntax of the Unified Modelling Language.
- Recognise the major UML models used throughout the object-oriented analysis, design, and development process.
- Explain how to develop UML models using an open-source tool.
- Highlight the role to be played by UML in supporting object-oriented design.
- Recognise the problems with UML.

Unified Modelling Language

Reading | 4 hrs

The reading this week focuses on both the strengths and weaknesses of using UML to examine the design of software on paper, prior to its implementation using a programming language.

Unit 3 Reading

Formative Activities | 2+2 hrs

Continue the **discussion in unit 1**. You should now provide a summary post into to the discussion based on your initial post and the feedback from your peers.

Prepare for next week's seminar by reviewing the preparation material available in Unit 4.

e-Portfolio Activities | 4 hrs

Discuss which UML models are most applicable at different stages of the Software Development Life Cycle.

Making reference to 'The Unified Modeling Language Reference Manual Second Edition', use the State Machine Diagram in Figures 3-7 in Chapter 21 to design a similar model for a washing machine.

You can share your work with your tutor via email for formative feedback.