Module Six

Learning Objectives

By the end of this module, you will meet these learning objectives:

- Construct proper UML diagrams using CASE tools
- Describe technical requirements based on a proposed system design

Module Overview

A systems analyst is similar to a translator. They collect requirements from the client to make sure that the system they design meets the client's needs. Then they need to communicate those needs to their colleagues—programmers, designers, database managers, and so on—who will actually build the system. One way for the systems analyst to communicate with these different audiences is to use a common language. This language is called the Unified Modeling Language, or UML. UML consists of different types of diagrams. These diagrams are based on the client's requirements and are passed on to the people who will build the system. Each type of UML diagram represents a different viewpoint of the same system. In this module, you will learn more about four different types of UML diagrams:

- UML class diagrams
- UML use case diagrams
- UML activity diagrams
- UML sequence diagrams

A UML class diagram explains the different objects or classes in the system, including their attributes and functions. A UML use case diagram explains the relationships between a system's users (actors) and the system's different activities (use cases). UML use case diagrams explain who does what. UML use case diagrams are used to build UML activity and UML sequence diagrams. UML activity diagrams explain the activities that happen within a case. These diagrams describe the process to achieve that activity. Finally, the UML sequence diagram is used to show the sequence of events that needs to happen to perform the activity.

Each of these diagrams has very specific notation: symbols, shapes, and text that all carry meaning. It is important to use CASE tools when creating UML diagrams so that you include all the proper notation. In this module, you will learn about the notation for these diagrams and gain practice creating and interpreting the different types of UML diagrams.

Finally, you will also gain practice this week capturing the technical requirements for your system design. Technical requirements include any technical aspect of the system, such as the hardware, software, code, location, or hosting company that will host the product (if it's web based). Depending on the system, you have to think about the technical aspects such as space, which operating system to use, which servers to use, backup plans, and so on.

Module at a Glance

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the module Resources section and on the module table of contents page.

1. Review the Project Two Guidelines and Rubric.
2. Review the Module Six resources.
3. Post your initial response to this week's discussion.
4. Complete the Module Six assignment.
5. Post peer responses to the discussion.