

Module Two

Learning Objectives

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

- Explain best practices and tools for testing improvement and continuous integration
- Describe software techniques, tools, and applications

Module Overview

Did the customer get what they paid for?

How can you ensure that your software meets your customers' needs? There are several different types of software testing techniques, and, depending on your software development environment as a developer, you will play a key role in ensuring that the software you develop is verified and validated. During the software development life cycle, there are critical points at which you can ensure that the software you are developing will meet your customers' needs. Examples of verification testing for developers are unit testing, integration testing, and static analysis testing, and examples of validation testing are usability testing, specification inspection, and customer acceptance. Testing techniques such as system testing and regression testing overlap into each area and help to determine both verification and validation.

In this module, you will learn about the different testing techniques and philosophies that support software testing. You will understand the importance of each different area of testing and how each applies to the software development life cycle. In addition, you will check your understanding of these ideas by taking a quiz. You will also explore continuous integration tools through discussion with your peers and identify the differences between static and dynamic testing through a journal reflection.

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 Module Two resources.

- 2** Post your initial response to this week's discussion (initial post due Thursday).
- 3** Complete the Module Two quiz.
- 4** Complete the Module Two journal.
- 5** Post peer responses to the discussion.