

Devops Testing

Modality: On Demand

Duration: 16 Hours

ABOUT THIS COURSE:

In this DevOps University's course, you will get to know about how to create and analyze tests using multiple tools such as Visual Studio Team Services (VSTS), Visual Studio, Application Insights and third-party frameworks such as Selenium.

you will be learning about different testing techniques and their usage scenarios. You will also learn about the benefits of a Test-Driven development approach. Then we will explore the best practices around the usage of Unit, API (Integration), Performance, Functional, Automated (Coded) UI and Exploratory testing.

Course Objective:

In this course you will learn about:

- Various testing types and their usage
- Test-Driven development and the advantage associated with it
- Creating and implementing unit testing and the elements involved in a good test
- Creating basic API tests (or Integration tests)
- Testing application performance and how to create a performance test unit by using Visual Studio and Visual Studio team services (VSTS)
- Analyzing the performance of test results using Application Insights
- Exploratory testing in the context of visual Studio and Microsoft Test Manager

Prerequisite:

- Experience working in an organization delivering software. Basic understanding of DevOps or completion of the Introduction to DevOps Practices.

Course Outline:

Testing Overview

- Module 1 Learning Objectives
- Module 1 Introduction
- Types of Tests
- Value of Automated Testing in DevOps
- Test-Driven Development and its Benefits
- Supplemental Learning
- Module 1 Review Questions

Unit Tests

- Module 2 Learning Objectives
- Module 2 Introduction
- What is Unit Testing?
- Elements of Unit Test
- Techniques for Advanced Unit Testing
- Create good unit tests using Visual Studio
- Labs
- Module 2 Supplemental Learning
- Module 2 Review Questions

Integration Testing

- Module 3 Learning Objectives
- Module 3 Introduction
- Integration Testing Overview
- Integration Test in a standard development environment
- Module 3 Review Questions

Web Performance Tests and Load Tests

- Module 4 Learning Objectives
- Module 4 Introduction
- Performance Testing
- Create Web Performance Test Scripts
- Run Load Tests
- Analyze Performance Test Results
- Labs
- Module 4 Supplemental Learning
- Module 4 Review Questions

Functional Testing ? Acceptance, UI, and Exploratory Tests

- Module 5 Learning Objectives
- Module 5 Introduction
- Introduction to Functional Testing
- Manual Acceptance Testing
- Automated UI testing
- Exploratory testing with Microsoft Test Manager
- Labs
- Module 5 Supplemental Learning
- Module 5 Review Questions

Final Exam

- Graded Final Exam?

