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**Learning Style: On Demand**

**Provider: Microsoft**

**Difficulty: Intermediate**

**Course Duration: 16 Hours**

## Devops Testing



### About this course:

You will find out about various test types, usage scenarios and the benefits of the approach of Test-Driven development in this course. The best practices around the use of Unit, Performance, Functional, API (Integration), Automated (Coded) UI, Acceptance, and exploratory testing will be covered in this course.

You will figure out the way to make and inspect these tests utilizing different apparatuses, for example, Visual Studio, Application Insights, Visual Studio Team Services (VSTS), and outsider systems like Selenium

## Course Objective:

- Comprehend different types of testing and scenarios of usage
- Step by step instructions to make and apply Unit tests and the components of a decent test
- The development of Test Drives and its advantages
- The best method to create basic tests of API (or Integration tests)
- Exploratory testing with regards to Microsoft Test Manager and Visual Studio.
- Step by step instructions to analyze the results of the performance test using Application Insights.
- Define Performance testing and the way to make a test of performance utilizing Visual Studio team services (VSTS) and Visual Studio.
- Exploratory testing in the context of visual Studio and Microsoft Test Manager.
- Supplemental Learning.
- Elements of Unit Test
- Techniques for Advanced Unit Testing
- Create good unit tests using Visual Studio.
- Integration Testing Overview
- Integration Test in a standard development environment.
- Performance Testing
- Create Web Performance Test Scripts
- Run Load Tests
- Analyze Performance Test Results
- Introduction to Functional Testing
- Manual Acceptance Testing
- Automated UI testing
- Exploratory testing with Microsoft Test Manager

## Prerequisite:

- The fundamental information of DevOps or finishing of the Introduction to the Practices of DevOps.
- Working experience in an association delivering software.

## 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?

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