Software Testing Using Microsoft Test Manager 2015

Duration	3 days	Version	2015.1
Skill level	Intermediate		
Audience	Testers, QA Engineers, Developers		
Products and technologies	The following products and technologies will be covered in this course:		

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- Microsoft Test Manager 2015
- Visual Studio Team Services or Team Foundation Server 2015

Course Description

This three-day course is designed for testers who need to gain a solid practical knowledge of testing applications using Microsoft Test Manager 2015.

The course focuses primarily on the use of Microsoft Test Manager 2015, which is both a stand-alone product and part of Visual Studio 2015 Enterprise edition. The course teaches you how to design test plans that include test cases, test suites, and test configurations. Best practices are also discussed, including how you can make your tests as resilient as possible.

Attendees will learn how testers and developers can work more closely together to reduce the time it takes to find and fix software defects. Through the efficient use of new data collectors, developers should be able to pinpoint issues quicker than ever before.

Testers will also learn how to manage their test plans over multiple iterations and how cloning and copying between test plans can save time and effort.

The course finishes with a look at test automation and the role of testing in modern DevOps-focused organizations.

This course includes hands-on labs to reinforce practical skills and ensure you're ready to use the tools on your return to your workplace.

Course Objectives

At the completion of this course, attendees will be able to:

- Explain the testing capabilities of the Visual Studio ALM product suite
- Create and manage test plans and test suites
- Manage test configurations and assign non-default configurations to test cases
- Create high quality, maintainable test cases
- Execute tests using the Microsoft Test Runner
- Use Test Case Fast Forward to help speed up the testing process
- Create actionable, high quality bug reports
- Verify resolved bugs and manage the bug lifecycle
- Conduct exploratory testing using Microsoft Test Manager
- Use the web-based test management interface to create and execute tests
- Manage test plans over multiple iterations and releases
- Report on test results and testing progress
- Gain an overview of how to create automated coded UI tests
- Understand where testing fits into a modern DevOps-focused organization

Audience

This course is designed for team members who perform the role of tester within their team in either a full-time or part-time capacity. The course would also be beneficial for developers looking to increase their knowledge of testing.

Prerequisites

Attendees should be familiar with testing theory and practices.

Modules

Module 1: A Lap Around the Testing Tools in Visual Studio 2015

- A look at the Visual Studio product family
- Introducing Microsoft Test Manager 2015
- The role of Team Foundation Server 2015 or Visual Studio Team Services

Module 2: Planning Your Testing Effort

- Reviewing requirements on the backlog
- Defining our test plan strategy
- Test types in Visual Studio
- Starting Microsoft Test Manager

Module 3: Creating Your First Test Plan

- Creating new test plans
- Organizing tests using test suites
- Mapping requirements to tests
- Configuring test settings including data collectors
- Balancing storage considerations

Module 4: Authoring a Manual Test Case

- Creating a new manual test case
- Using Grid view to author and edit test cases
- Appropriate use of Expected Results
- Tagging test cases for better organization

Module 5: Data Binding Test Cases

- Adding parameters to our test steps
- Using shared parameters across multiple test cases
- Maintaining shared parameters

Module 6: Executing Test Cases

- Defining which tests to include in a test run
- Assigning a tester to run tests
- Executing tests using the web-based Test Runner
- Executing tests using the Microsoft Test Runner

- Test Case Fast Forward
- Recording reliable action recordings

Module 7: Raising and Verifying Bugs

- Raising a bug from the Microsoft Test Runner
- The bug lifecycle
- View bug states
- Verifying a bug fix

Module 8: Understanding and Analyzing Test Results

- Viewing current test plan results
- Viewing results for test runs
- Categorizing results

Module 9: The role of builds in testing

- Assigning a new build to our test plan
- Determining what's changing between builds
- Examining impacted tests

Module 10: Refactoring Test Cases

- The need for shared steps
- Creating shared steps
- Reusing shared steps
- Shared steps in the Test Runner
- Best practices for shared steps

Module 11: Exploratory Testing

- What is exploratory testing?
- Exploratory testing in Microsoft Test Manager
- Creating bugs and test cases from exploratory tests

- Web-based exploratory testing

Module 12: Test Release Management

- The need for test release management
- Moving from iteration to iteration
- Cloning test plans
- Copying test cases to the next iteration

Module 13: Reporting Test Progress and the Status of Tests

- A lap around the out-of-the-box reports
- Producing test progress reports
- Creating ad hoc reports using Excel

Module 14: An Overview of Test Automation

- What is a coded UI test?
- Creating coded UI tests from action recordings
- Using the Coded UI Test Builder

Module 15: The Role of Testing in a Modern DevOps Environment

- What is DevOps?
- The changing focus of testing
- Testing and DevOps in action