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Team Foundation Server

ALMDT18: TFS 2018 Developer Fundamentals – TFVC
$1,595.00

- 2 Days

Upcoming Dates

Course Description

Team Foundation Server 2018 and Visual Studio offer many features to help make developers more productive. This two-day course has been designed for developers wanting to work efficiently with Team Foundation Server 2018. All examples and hands-on lab exercises use Team Foundation Version Control (TFVC).

This course focuses on the Agile and Scrum processes which is a common theme through all modules. Course attendees will learn the basics of working from product and sprint backlogs and learn how they can easily track work to help ensure projects are delivered on-time while maintaining quality.

The central part of the course provides a deep dive into version control topics which is central to a developer's day to day work. This includes how to branch and merge following best practices before moving into unit testing and code quality features. You'll learn how to track the quality of your code and work to reduce the accumulation of technical debt during your projects.

The course examines the new build system and how to configure continuous integration (CI) to help find issues quickly so they can be fixed. The final topic in the course looks at the new Package Management features introduced in the previous version TFS. Package Management allows teams to easily re-use packages across multiple applications to increase productivity.

Course Outline

Module 1 - Introducing the Microsoft Visual Studio family

- What's new in Visual Studio
- Overview of the Visual Studio family
- Overview of product features
- A lap around Visual Studio Team Services
- Project workflow across the Visual Studio suite of products

Module 2 – Organizing work in Team Projects

- Understanding Team Projects & Team Project Collections
- Creating a new Team Project
- Working in Teams
- Developer documentation using the built-in Wiki

Module 3 - Work Items and working with backlogs

- Overview of Work Items
- Getting started with the Product Backlog
- Understanding User Stories

- Creating and working with the Sprint Backlog
- Configuring project notifications

Module 4 - TFS Version Control Concepts

- Version Control in Visual Studio
- Version Control terminology
- A closer look at Workspaces
- Changesets and shelvesets

Module 5 - Using Team Foundation Version Control

- The Source Control Explorer
- Getting code into TFVC
- Understanding the Pending Changes experience
- Linking changesets to work items
- Locking files in TFVC

Module 6 – Configuring an effective Version Control environment

- Working with Workspaces
- Setting team project wide source control settings
- Check-in policies
- Backward compatibility using the MSSCCI provider

Module 7 – Effective branching and merging

- Defining a branching strategy
- How to branch
- Branch visualisation and tracking changes
- Merging and resolving conflicts

Module 8 - Unit testing and code quality tools

- Unit Testing in Visual Studio
- Visual Studio Test Explorer
- Live Unit Testing
- Code Coverage
- Code Metrics
- Code Analysis
- Code Clone Analysis

Module 9 - Build and continuous integration

- Understanding Build infrastructure
- Creating new build definitions
- Running tests as part of your build
- Configuring Continuous Integration

Module 10 – Package Management

- Overview of Package Management in TFS
- Creating a feed
- Building and publishing your packages
- Consuming packages in Visual Studio

Audience

This course is designed for all Visual Studio developers who are starting work with Team Foundation Server 2018. The course focuses on features common to both the professional and enterprise editions of Visual Studio 2017.

Prerequisites

Attendees should have some familiarity with Visual Studio and either Visual Basic or C#.

What You Will Learn

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

- Create, configure and manage Team Projects
- Use the new wiki for team documentation
- Use the Team Explorer to navigate project content
- Work from the product backlog
- Decompose user stories into tasks in the sprint backlog
- Manage work using work items
- Link code changes to tasks and bugs to provide traceability
- Use both managed and adhoc queries to find and organize work
- Setup and manage their own notifications
- Understand core version concepts and how they apply to TFS
- Use the version control system effectively including branching
- Work with unit tests and the test explorer window
- Understand and use live unit testing
- Calculate and monitor code coverage
- Use code metrics and static code analysis
- Reduce technical debt using code clone analysis
- Use the new build system and configure Continuous Integration (CI)
- Improve code reuse using Package Management