

Team Foundation Server 2017 Developer Foundations (TFVC)

Course Summary

Description

Microsoft's Team Foundation Server (TFS) is ideal for teams of any size. Having an experienced TFS administrator is not enough, however. Every developer on the team needs to know the basics. This two-day course will introduce you to TFS' foundational capabilities so that you can plan, track, and manage work while ensuring high-quality code in your next project.

Objectives

After taking this course, students will be able to understand:

- Visual Studio editions and features
- Comparing TFS and Visual Studio Team Services
- Planning and creating team projects
- Selecting an appropriate process template
- Managing team projects using Team Explorer
- Configuring a team project for their team's needs
- Creating, querying, and managing work items
- Using the browser-based web portal
- Using the Agile planning tools
- Configuring alerts and notifications
- Using Microsoft Office as TFS client
- Creating work item charts and reports
- Installing an extension from the Marketplace
- Using Team Foundation Version Control
- Configuring a workspace
- Basic and advanced version control scenarios
- Associating a work item during check-in
- When, why, and how to branch code
- Using the MSSCCI provider from other, legacy IDEs
- Creating and running C# unit tests
- Calculating and using code coverage
- Using Visual Studio to perform a code review
- Using Code Metrics, Code Analysis, & Code Clone Analysis to identify and manage technical debt
- Automating the building process
- Automating the testing process

Topics

- Team Projects
- Work Items and Queries
- Planning and Tracking Work
- Version Control
- Ensuring Code Quality
- Automating the Build Process

Audience

This course is intended for members of a development team that uses Visual Studio.

Prerequisites

Before taking this course, attendees should be comfortable using a current version of Windows and be able to read and understand C# code.

Duration

Two days

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Course Outline

- I. Team Projects**
 - A. Visual Studio editions and ALM features
 - B. Team projects and team project collections
 - C. Configure security, team, areas, and iterations
 - D. Plan, rename, and delete team projects
 - E. Manage using Team Explorer and the web portal
- II. Work Items and Queries**
 - A. Create, link, query, and manage work items
 - B. Chart, tag, and report work items
 - C. Configure alerts and notifications
 - D. Use web portal, MS Excel, and MS Project
- III. Planning and Tracking Work**
 - A. Create and manage a product backlog
 - B. Plan and track work during a sprint
 - C. Use Agile backlog and Kanban board
 - D. Execute and track work using the task board
- IV. Version Control**
 - A. Setup and use TFS version control system
 - B. Basic and advanced workflows
 - C. Associate a work item during check-in
 - D. Create labels and shelvesets
 - E. Branch and merge code effectively
- V. Ensuring Code Quality**
 - A. Create, run, and refactor C# unit tests
 - B. Calculate Code Coverage
 - C. Use Code Metrics and Code/Code Clone Analysis
 - D. Conduct a Code Review
- VI. Automating the Build Process**
 - A. Overview of the build system
 - B. Create and queue a build
 - C. Monitor and manage the build process
 - D. Automate testing and other code quality checks