Managing Projects Using Visual Studio 2019, Azure DevOps Services and Scrum

MPVS2019 | 3 Days

This three-day course will help take your team and product to the next level. Using a combination of lecture, demonstrations, and team-based exercises, students will experience how to deliver software using the Scrum framework and corresponding practices and tools found in Visual Studio and Azure DevOps Services.

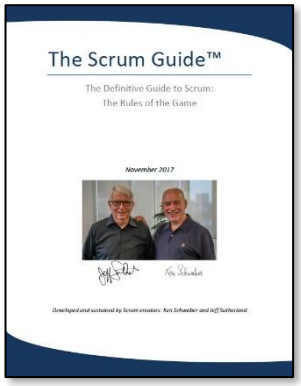
Course Objectives

At course completion, attendees will have had exposure to:

- ✓ Agile software development values and principles
- ✓ Why empiricism is best suited for complex work
- ✓ The Scrum framework (roles, events, and artifacts)
- ✓ Product Backlog refinement
- ✓ Lean approaches to software requirements
- ✓ Requirements vs. specifications
- ✓ Importance of acceptance criteria
- ✓ Agile estimation techniques
- ✓ Definition of "Ready" and definition of "Done"
- ✓ Reducing waste during development
- ✓ How to use Azure Boards to support Scrum
- ✓ Creating a custom *Professional Scrum* process
- ✓ Creating and configuring a team project
- ✓ Mapping product development to a team project
- ✓ Using Azure Boards to plan and track work
- ✓ Strategies for multiple teams and multiple products
- ✓ Managing a Product Backlog in Azure Boards
- ✓ Tagging, finding, and querying work items
- ✓ Tracking business value and size (effort)
- ✓ Customizing and using the Kanban board
- ✓ Using Epic and Feature level backlogs
- ✓ Using the *SpecMap* extension to create story maps
- ✓ Forecasting work for upcoming Sprints
- ✓ Planning work in the current Sprint
- ✓ Capturing the Sprint plan as task work items
- ✓ Capturing the Sprint plan as test case work items
- ✓ Using the task board to update Sprint progress
- ✓ Using boards and charts to assess progress
- ✓ Using the *Definition of "Done"* extension
- ✓ Collaborating as a team & improving productivity
- ✓ Pairing, swarming, and mobbing
- ✓ Maintaining a wiki in Azure DevOps Services
- ✓ Performing code reviews using pull requests
- ✓ Requesting and capturing stakeholder feedback
- ✓ Using the *Test and Feedback* browser extension
- ✓ Using *Live Share* to collaborate in real time
- ✓ Assuring quality using Azure Test Plans
- ✓ Development, acceptance, and exploratory tests
- ✓ Creating test plans, test suites, and test cases
- ✓ Importing and exporting test artifacts
- ✓ Testing web applications and desktop applications
- ✓ Performing exploratory testing
- ✓ Creating automated acceptance tests in Visual Studio
- ✓ Collaborating in code using Azure Repos
- ✓ Git overview and basic workflow
- ✓ Writing and running unit tests
- ✓ Practicing Test-Driven Development (TDD)
- ✓ Building and releasing code using Azure Pipelines
- ✓ Practicing Continuous Integration (CI)
- ✓ Agile metrics vs. traditional project metrics
- ✓ Reporting on a product's health and progress
- ✓ Configuring project alerts and notifications
- ✓ Using Excel for reporting and charting
- ✓ Using the Analytics Service and related widgets
- ✓ Velocity, Cumulative Flow, and other charts
- ✓ Using Power BI and the REST API for reporting

Who Should Attend

Product Owners, Scrum Masters, developers, testers, architects, business analysts, team leaders, and managers who want to improve the way their software is delivered should attend this class. Both technical and non-technical people will benefit from the many discussions and hands-on activities.



Prerequisites

Having some project management and software development experience, either as a team member or as a project manager, is preferred. Experience with Agile software development, Scrum and Visual Studio are also helpful, but not required. Attendees should read and be familiar with the Scrum Guide prior to attending class.

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Modules

Module 1: The Scrum Framework
- ✓ The Scrum framework
- ✓ Empiricism, inspection, adaptation, transparency
- ✓ Scrum roles, events, and artifacts
- ✓ Scrum values

Module 2: Scrum in Action
- ✓ Refining the Product Backlog
- ✓ Planning a Sprint
- ✓ Planning and executing daily work
- ✓ Conducting a Sprint Review
- ✓ Conducting a Sprint Retrospective

Module 3: Adopting Scrum
- ✓ Changing organizational culture
- ✓ Adoption blockers and common issues
- ✓ Dysfunction case studies

Module 4: The Team Project
- ✓ Azure DevOps Services overview
- ✓ Creating a custom *Professional Scrum* process
- ✓ Planning and creating a team project
- ✓ Configuring security, areas, and iterations
- ✓ Socializing the development effort
- ✓ Mapping Scrum to a team project

Module 5: The Product Backlog
- ✓ Introduction to Azure Boards
- ✓ Creating and managing the Product Backlog
- ✓ PBI and Bug work item types
- ✓ Tracking business value and size (effort)
- ✓ Tagging, querying, and charting work items
- ✓ Customizing and using the Kanban board
- ✓ Implementing a definition of "Ready"
- ✓ Using Epic and Feature level backlogs
- ✓ Using Excel to manage the Product Backlog
- ✓ Leveraging stakeholder access
- ✓ Using *SpecMap* to create a story map

Module 6: Planning a Sprint
- ✓ Using the forecasting tool
- ✓ Planning the forecasted work in the Sprint
- ✓ Representing the Sprint plan with task work items
- ✓ Tracking the daily progress of work
- ✓ Using the Burndown and Cumulative Flow charts
- ✓ Using the *Definition of "Done"* extension

Module 7: Collaborating as a Team
- ✓ Collaboration principles and practices
- ✓ Pairing, swarming, and mobbing
- ✓ Creating and maintaining a wiki
- ✓ Using pull requests to review code
- ✓ Requesting and collecting stakeholder feedback
- ✓ Using the *Test and Feedback* extension
- ✓ Collaborating with *Visual Studio Live Share*

Module 8: Agile Software Testing
- ✓ Agile testing principles and practices
- ✓ Introduction to Azure Test Plans
- ✓ Development, acceptance, and exploratory tests
- ✓ Creating a test plan, test suites, and test cases
- ✓ Testing web and desktop applications
- ✓ Performing exploratory testing

Module 9: Agile Software Development
- ✓ Introduction to Azure Repos and Azure Pipelines
- ✓ Git overview and workflow
- ✓ Unit testing & Test-Driven Development (TDD)
- ✓ Automated build and release using Azure Pipelines
- ✓ Practicing Continuous Integration (CI)

Module 10: Reporting
- ✓ Agile metrics that matter
- ✓ Configuring alerts and notifications
- ✓ Using the Microsoft *Analytics* extension
- ✓ Ad-hoc reporting using Excel and Power BI
- ✓ Querying data using the REST API

Course Designer

This course was designed by Richard Hundhausen, a Microsoft Developer Technologies MVP, Professional Scrum Trainer, co-creator of the Nexus Scaled Professional Scrum framework, and an experienced software developer and trainer.

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