Delivering Products Using Azure DevOps and Scrum

DPADS | 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 Azure DevOps and Visual Studio.

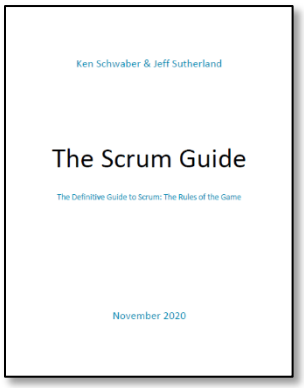
Course Objectives

At course completion, attendees will have had exposure to:

- ✓ Agile software development values and principles
- ✓ Why empiricism is best suited for complex work
- ✓ Scrum framework (accountabilities, events, artifacts)
- ✓ Product Backlog refinement
- ✓ Lean approaches to software requirements
- ✓ Requirements vs. specifications
- ✓ Importance of acceptance criteria
- ✓ Agile estimation techniques
- ✓ Understanding and using a definition of Ready
- ✓ Reducing waste during development
- ✓ How to use Azure Boards to support Scrum
- ✓ Creating a custom *Professional Scrum* process
- ✓ Creating and configuring an Azure DevOps project
- ✓ Mapping Scrum to a Azure DevOps
- ✓ 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 Taskboard to visualize/managing the plan
- ✓ Using boards and charts to assess progress
- ✓ Understanding and using a definition of Done
- ✓ Using the *Definition of Done* extension
- ✓ Collaborating as a team & improving productivity
- ✓ Pairing, swarming, and mobbing
- ✓ Maintaining a wiki in Azure DevOps
- ✓ 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)
- ✓ Practicing Continuous Delivery (CD)
- ✓ 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 analytics
- ✓ Using Power BI, OData, and the REST API for reporting

Who Should Attend

Product Owners, Scrum Masters, Developers, coders, programmers, testers, architects, business analysts, team leaders, managers, and anyone else who wants to improve their software and 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 helpful, but not required. Attendees should read and be familiar with the Scrum Guide prior to attending class.

Accentient™

Delivering Products Using Azure DevOps and Scrum

DPADS | 3 Days

Modules

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

Module 2: Scrum in Action
- ✓ Refining the Product Backlog
- ✓ Planning a Sprint
- ✓ Planning and executing 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: Azure DevOps
- ✓ Azure DevOps overview
- ✓ Creating a custom *Professional Scrum* process
- ✓ Planning and creating an Azure DevOps project
- ✓ Configuring security, areas, and Sprints
- ✓ Socializing the development effort
- ✓ Mapping Scrum to a Azure DevOps 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
- ✓ Mapping work items to portfolio backlogs
- ✓ Using Excel to manage the Product Backlog
- ✓ Understanding and leveraging stakeholder access
- ✓ Using *SpecMap* to create a story map

Module 6: Planning and Managing a Sprint
- ✓ Using the forecasting tool
- ✓ Planning the forecasted work in the Sprint
- ✓ Representing the Sprint plan with work items
- ✓ Assessing progress during the Sprint
- ✓ Using the Burndown, CFD, and other analytics
- ✓ Using the *Sprint Goal, Definition of Done*, and *Retrospective* extensions

Module 7: Collaborating as a Team
- ✓ Pairing, swarming, mobbing, and other practices
- ✓ Creating and maintaining a wiki
- ✓ Using pull requests to review code
- ✓ Requesting and collecting stakeholder feedback
- ✓ Using the *Test and Feedback* extension
- ✓ Collaborating using *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)
- ✓ Practicing Continuous Delivery (CD)

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

Course Designer

This course was designed by Richard Hundhausen, Microsoft's first Visual Studio ALM/DevOps MVP, Professional Scrum Trainer, co-creator of the Nexus Scaled Professional Scrum framework, and an experienced software developer and trainer. To see other developer courses, visit www.accentient.com.

Accentient™