

Managing Agile Projects Using Azure DevOps (3 Day)

This 3-day course provides the essential skills required to effectively manage a software development project using Microsoft Azure DevOps.

Using a combination of lecture, demonstrations, hands-on activities, and exercises, attendees will experience how to deliver software using the Scrum framework while reducing waste and developing an agile mindset. This course will introduce Kanban and demonstrate how an Agile team can configure and use Azure Boards to effectively practice Kanban, achieve flow, and begin improving throughout the predictability.

Azure DevOps Services provide a set of cloud-hosted tools that software teams can use as an end-to-end solution to plan, develop, test, and deliver value in the form of working software. Azure Test Plans enable a team to plan, track, and assess quality throughout the entire development effort. This course will demonstrate how an agile team can configure and use Azure Test Plans to effectively assure quality in web and desktop applications.

Audience

This course is designed for Product Owners, Scrum Masters, developers, testers, architects, business analysts, team leaders, and managers who want to improve the way their software is delivered.

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, and Scrum in particular, is also helpful, but not required.

Course Outline

The Scrum Framework

Agile manifesto, Scrum, the Scrum Guide
Empiricism, inspection, transparency
Scrum roles, events, and artifacts
Complementary practices

Scrum in Action

Refining the Product Backlog
Planning a Sprint
Planning and executing daily work
Conducting a Sprint Review
Conducting a Sprint Retrospective

Adopting Scrum

- Changing organizational culture
- Adoption blockers and common issues
- Definition of “done” vs. undone work
- Dysfunctional behavior case studies
- Attributes of a Professional Scrum Developer

Introduction to Kanban

- Kanban overview
- Kanban core practices
- Kanban support in Azure Boards
- Configuring an Azure DevOps project
- Managing a product backlog

Visualizing the Workflow

- Kanboard board overview
- Kanban board vs. a backlog
- Kanban board vs. a taskboard
- Defining the workflow
- Making policies explicit
- Definition of “Done”
- Defining classes of service (swimlanes)
- Defining task checklists and inline tests
- Filtering the board
- Keyboard shortcuts

Limiting WIP

- Work in Progress (WIP) overview
- Visualizing WIP limits
- Creating a pull system
- Splitting columns into “doing” and “done”
- Challenges with limiting WIP
- Bottlenecks

Managing for Flow

- Flow-based metrics
- Cycle time vs. lead time
- Little’s Law

- Flow-based analytics
- Cumulative Flow Diagrams
- Scatterplots
- Actionable Agile Analytics
- Monte Carlo simulation
- Achieving flow and predictability

Test Case Management

- Defining and maintaining quality
- Acceptance criteria and acceptance testing
- Azure DevOps Services overview
- Azure Boards overview
- Configuring a team project for testing
- Planning and running tests during a sprint
- Charts, reports, and notifications
- Extending Azure Test Plans

Test Planning

- Test case management
- Creating test plans and test suites
- Creating and using configurations
- Creating and managing test cases
- Using parameters and shared steps
- Importing and exporting test artifacts

Running Tests

- Azure Test Runner
- Testing a web application
- Testing multiple times with different data
- The Test & Feedback extension
- Capturing screenshots and video
- Reporting a bug during testing
- Viewing and charting a test run
- Exploratory testing overview
- Performing exploratory testing
- Creating a test case while exploring
- Using Azure Test Runner to test a desktop app
- Regression testing