

## Managing Projects Using Visual Studio 2015 and Scrum

### Course Summary

#### Description

This three-day course will help take your team and project to the next level. Using a combination of lecture, demonstrations, hands-on activities, and team-based exercises, attendees will experience how to deliver software using the Scrum framework and the corresponding tools and practices in Visual Studio 2015.

Students will work in teams on a common case study. This course can be delivered using either on-premises Team Foundation Server 2015 or Visual Studio Online to plan and track work.

#### Objectives

At the end of this course, students will be able to understand:

- Agile software development values and principles
- Why empiricism is best suited for complex work
- The Scrum framework
- Scrum 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"
- Definition of "Done"
- Reducing waste during development
- Mapping Scrum concepts to Visual Studio
- The Visual Studio Scrum process template
- Mapping a product to a team project
- Using Visual Studio to plan and track work
- Strategies for one product with multiple teams
- Strategies for one team with multiple products
- Creating a Product Backlog in Visual Studio
- Refining and ordering the Product Backlog
- Tracking Effort and Business Value
- Customizing and using the Kanban board
- Creating epic and feature level backlogs
- Velocity and Cumulative Flow charts
- Configuring project alerts and notifications
- Forecasting work for upcoming Sprints
- Planning work in the current Sprint
- Decomposing the forecast into task work items
- Using the task board to update Sprint progress
- Using the Burndown chart to assess progress
- Using storyboards to elicit stakeholder feedback
- Use the code review feature in Visual Studio
- Capturing stakeholder feedback
- Use a team room to collaborate with others
- Using Microsoft Test Manager 2015
- Create a test plan, test suites, and test cases
- Using the My Work page in Team Explorer
- Automating builds using Team Foundation Build
- Writing and running unit tests
- Practicing Test-Driven Development (TDD)
- Practicing Continuous Integration (CI)
- Relevant queries and reports
- Reporting on the product's health and progress
- Creating custom reports in Microsoft Excel

## Managing Projects Using Visual Studio 2015 and Scrum

### Course Summary (cont'd)

#### Topics

- The Scrum Framework
- Scrum in Action
- Adopting Scrum
- The Team Project
- The Product Backlog
- Planning and Tracking a Sprint
- Collaborating as a Team
- Agile Software Testing
- Agile Software Development
- Reporting

#### Audience

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 discussions.

#### 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](#).

#### Duration

Three days

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### Course Outline

- I. The Scrum Framework**
  - A. The Scrum Guide
  - B. Empiricism, inspection, adaptation, transparency
  - C. Scrum roles, events, and artifacts
- II. Scrum in Action**
  - A. Refining the Product Backlog
  - B. Planning a Sprint
  - C. Planning daily work
  - D. Conducting a Sprint Review
  - E. Conducting a Sprint Retrospective
- III. Adopting Scrum**
  - A. Changing organizational culture
  - B. Adoption blockers and common issues
  - C. Dysfunction case studies
- IV. The Team Project**
  - A. Visual Studio 2015 editions and features
  - B. Visual Studio 2015 ALM overview
  - C. Planning and creating a team project
  - D. Configuring security, areas, and alerts/notifications
  - E. Supporting multiple teams in a scaled environment
  - F. Supporting multiple products by a single team
- V. The Product Backlog**
  - A. Visual Studio Scrum overview
  - B. Creating and managing the Product Backlog
  - C. PBI and Bug work item types
  - D. Tagging, querying, and charting work items
  - E. Using the Kanban board
  - F. Implementing a definition of "Ready"
  - G. Creating epic and feature level backlogs
- VI. Planning and Tracking a Sprint**
  - A. Configuring Sprints and sprint dates
  - B. Planning the forecasted work in the Sprint
  - C. Creating task work items to represent the plan
  - D. Configuring project alerts and notifications
  - E. Tracking the daily progress of work
  - F. Using the burndown chart
- VII. Collaborating as a Team**
  - A. Collaboration principles and practices
  - B. Creating storyboards in PowerPoint
  - C. Reviewing code in Visual Studio
  - D. Providing feedback using the Feedback Client
  - E. Collaborating in a Team Room
- VIII. Agile Software Testing**
  - A. Agile testing principles and practices
  - B. Creating tests to represent the Sprint plan
  - C. Microsoft Test Manager 2015
  - D. Creating a test plan, test suites, and test cases
  - E. Planning and running tests from the browser
- IX. Agile Software Development**
  - A. Using the My Work page in Team Explorer
  - B. Unit Testing & Test-Driven Development (TDD)
  - C. Team Foundation Build 2015
  - D. Continuous Integration (CI)
- X. Reporting**
  - A. The metrics that matter
  - B. Visual Studio reporting capabilities
  - C. Visual Studio Scrum out-of-the-box reports
  - D. Ad-hoc reporting using queries and charts
  - E. Ad-hoc reporting using Excel