

## **Agile Estimating and Planning**

### **Course Summary**

#### **Description**

A good estimating and planning process is integral to project success. Estimates provide information to make decisions, create performance targets and develop plans. Lack of an estimating process and pressure to over promise can lead to overly optimistic estimates that potentially hurt both your project team and their customers. Adaptive planning reduces budgeting and forecasting complexity. This course provides guidelines for project estimation and planning that are consistent with the core principles of Agile Development (e.g. Scrum, Extreme Programming (XP), Crystal, Feature Driven Development, etc.) and a reference process that satisfies those principles.

Students will learn how to construct an estimate using a product backlog as input as well as how to derive and maintain a project schedule and staffing model. You will apply what you learn in a series of exercises that take you through the agile estimating reference process.

#### **Objectives**

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

- Understand the key concepts and terms of agile estimating and planning
- Explain the benefits and key techniques of agile estimating and planning
- Have a familiarity with the progression of key activities and artifacts in agile estimation and planning
- Be prepared to adapt the agile estimating reference process to an upcoming project

#### **Topics**

- Agile estimating
- Agile planning
- Creating your first estimate
- Tracking and communicating
- Retrospective

#### **Audience**

This course is intended for all project team members, customers and stakeholders who are responsible for deriving, approving or just understanding the fundamentals of a project estimate or project plan.

#### **Prerequisites**

"Effective User Story Development with User Stories" or a basic understanding of user stories and product backlogs. Attended "Applying Scrum with User Stories" or attendance at a Certified Scrum Master (CSM) course.

#### **Duration**

Two days

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### Course Outline

#### I. Agile estimating

- A. Reasons to estimate and measure
- B. Basic estimating techniques
- C. Values in agile estimating
- D. Exercise: Do a relative estimate
- E. Estimating size with story points
- F. Estimating in ideal days
- G. Techniques for estimating
- H. Exercise: Derive an estimate using Planning Poker
- I. When to re-estimate

#### II. Agile planning

- A. Reasons to plan
- B. The problem with traditional planning
- C. The product backlog
- D. Techniques for story prioritization
- E. Exercise: Prioritize a product backlog using Planning Poker
- F. Release planning
- G. Exercise: Create a release plan
- H. Iteration planning
- I. Exercise: Create story tasks and produce an iteration plan
- J. Estimating velocity
- K. Exercise: Calculate team velocity for a product backlog
- L. Planning for uncertainty

#### III. Creating your first estimate

- A. The importance of having a reference process
- B. An overview of the basic reference process
- C. Assumptions and risks – What don't we know (& what shall we assume)?
- D. Requirements scope definition – Stories unto themselves.
- E. Story estimates – One size shouldn't fit all.
- F. The project estimate – How big is it?
- G. Exercise: Size a sample project
- H. The project schedule – When are we done?
- I. Exercise: Determine a project schedule
- J. The project staffing model – Just who are we anyway?
- K. Exercise: Create a project staffing model
- L. Calculating price – How much does it cost?
- M. Exercise: Calculate a project cost
- N. Extensions to the basic reference process

#### IV. Tracking and communicating

- A. Monitoring the release plan
- B. Monitoring the iteration plan
- C. Communicating via information radiators
- D. Exercise: Produce a burn down chart for a release

#### V. Retrospective

- A. Review
- B. Agile estimating and planning retrospective