

## Agile Boot Camp

The application of Agile principles and practices on software development projects enables a project team to quickly develop working software that meets business needs. In Scrum, teams work in 2-4 week Sprints to produce production-quality software driven by business priorities using an empirical, adaptive approach. This course provides an in depth understanding of how Agile and Scrum teams deliver business value.

You will learn to apply the basic practices of any Agile approach, with a focus on Scrum. You will apply what you learn in a series of exercises that take you through identification of user stories, project/release planning, Sprint planning, and Sprint execution. Participants will build and manage a Product Backlog, a Sprint Backlog and a Release Plan.

This course uses a combination of lecture, class discussion, and hands-on exercises, with emphasis on group activities, to reinforce the concepts and principles.

### Objectives:

- < Apply key concepts and terms of Agile and Scrum to project situations
- < Be able to explain the methodology's benefits and key techniques
- < Experience the progression of key activities and artifacts
- < Gain a deep understanding of different practices that can be applied and when to apply them
- < Be able to help others to understand and apply the practices and principles

### Audience:

This course is intended for anyone who will actively participate in a project using this approach. People on the edges of the project (secondary customers, management staff, and participants in related processes) will also benefit. Project teams are encouraged to attend as a group.

### Pre-requisites:

None

### Duration:

2 days

## Outline:

### 1. Agile/Scrum Fundamentals

- What are agile practices and principles?
- What is "iterative and incremental" development?
- What is Scrum?
- Scrum Roles and responsibilities

### 2. Requirements

- What is a User Story?
- How to identify and write good User Stories
- Non-functional requirements
- Evolution of requirements during a project
- Exercise – identify user stories

### 3. Estimation and Prioritization

- What is a Product Backlog?
- Creating the initial Product Backlog
- Agile Estimation Overview
- Different ways to do Agile estimation
- Prioritization- who, what, why and when?
- Definition of "Done"
- Exercise – estimate and prioritize user stories

### 4. Release Planning

- What is Release planning?
- How is an Agile release plan different from a traditional release plan?
- Methods for creating a release plan on an Agile project
- Exercise – create a release plan

### 5. Planning a Sprint

- What is a Sprint Backlog?
- Conducting Sprint Planning Meeting Part 1
  - Selecting a subset of the product backlog
  - Determining the Sprint scope
- Conducting Sprint Planning Meeting Part 2
- Developing the Sprint backlog
- Sprint tasking and estimation
- Exercise – create a sprint backlog

### 6. Running a Sprint

- Evolution of requirements during a Sprint
- Conducting the daily Scrum
- Managing the Sprint scope
- Tracking progress; recognizing problems

### 7. Closing a Sprint

- Conducting a Sprint review
- Conducting a Sprint retrospective
- Reporting project status
- Updating the backlog; Backlog grooming
- Closing the Sprint
- Exercise - run and close a sprint

### 8. Managing the Product Backlog and Release Plan

- How does the Product Backlog change during a project?
- How do you control changes?
- How does the Release Plan change during a project?

### 9. Agile Software Engineering

- Application of typical Agile Software Engineering practices such as Continuous Integration, Test Driven Development and Pair Programming

### 10. Agile Testing

- Testing during the Sprint
- Agile testing practices
- Roles/responsibilities in testing:
  - Developers
  - Team testers
  - Product Owner
  - Independent test group