

Course Title: Agile Software Development with Scrum

Duration : 2 days

Agile software development methodologies have become mainstream in the recent years, as the IT industry as well as its customers search for ways to ensure greater success for the software development projects.

This two-day workshop provides an in-depth understanding of Scrum, one of the most prominent agile methodologies. With the help of case studies and simulations, it helps them understand and experience the various activities in an software project using Scrum.

Program Objectives

This is a beginner to intermediate level program. At the end of the program, the participants will have a good understanding of the following:

- Principles behind agile software development
- The complete life cycle of Scrum
- Working with small iterations
- Estimation and planning
- Inspect and adapt mechanisms in Scrum
- Ways of adopting and adapting Scrum

Day-wise Break-up

Day	Module	Topic
Day 1	Module 1	Introduction to Agile Methodologies
	Module 2	Iterative Development
	Module 3	Introduction to Scrum
	Module 4	Product Discovery
	Module 5	Sprint Zero
	Module 6	Estimation and Prioritization
Day 2	Module 7	Planning for the First Sprint
	Module 8	During a Sprint
	Module 9	Ending a Sprint
	Module 10	After the First Sprint
	Module 11	Beyond the Basics

Course Outline

Module 1: Introduction to Agile Methodologies

- Introduction to agile software development
- The agile manifesto

Module 2: Iterative Development

- The waterfall model
- Iterative software development
- Benefits of iterative development

Module 3: Introduction to Scrum

- Overview of the Scrum life cycle
- Roles and activities in Scrum

Module 4: Product Discovery

- Product vision
- Creating the Product Backlog
- Stories, epics and themes

Module 5: Sprint Zero

- Requirements Workshop
- Architecture envisioning
- Defining "done"
- Acceptance tests as a way of documenting requirements
- Writing acceptance tests

Module 6: Estimation and Prioritization

- Estimating effort using Planning Poker
- Story points vs ideal engineering days
- Prioritization of stories
- Release planning

Module 7: Planning for the First Sprint

- Sprint Planning Meeting
- Determining capacity
- Identifying tasks from stories
- Estimating time required for tasks
- Creating Sprint Backlog
- Creating Task Board
- Creating Sprint Burndown Chart

Module 8: During a Sprint

- Daily Scrum Meetings
- Updating Sprint Backlog
- Updating Task Board
- Scrum Master's role in the Daily Scrum meetings

Module 9: Ending a Sprint

- Sprint Review Meeting
- Sprint Retrospective
- Sprint Termination

Module 10: After the First Sprint

- Revisiting estimates for stories and release plans
- Release burndown
- Product burndown

Module 11: Beyond the Basics

- Scaling agile for large teams
- Scaling agile for distributed teams