AGILE DEVELOPMENT

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Applying Agile Techniques and Implementing Scrum

Course Length
2 Days

TE7001_20091117

Course Description: Scrum participants overwhelmingly report gains in productivity, team morale, adaptability, accountability, collaboration, communication, and productivity. Software project managers and teams attending this course will develop the ability use Agile and Scrum in real world software development projects. This course goes beyond the basic Scrum framework and into the discussions of "how" to start using Scrum now!

Who Should Attend: This course is for people who will lead, support, or participate in Scrum-driven projects, including project leaders, development managers, team members, and product managers.

Prerequisites: There are no prerequisites for this course.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Learn, practice, and apply Scrum to software and technology projects.
- Develop insight necessary to apply Scrum to real world projects.
- Use Scrum as a tool for improving collaboration, communication, quality, and team productivity.
- Use Scrum techniques to support or replace an project management methodology.

Course Outline:

Agile background and evolution

Principles and values behind Agile

Overview of the Scrum basics

Scrum roles

Scrum tools & techniques

Scrum processes

Scrum versus conventional project management (PMI)

The Agile lifecycle

Planning Releases and gathering backlog

Articulating requirements with user stories

Creating rough estimations of relative effort

Sprint planning and task decomposition

The Daily Scrum

Sprint Reviews and Sprint Retrospectives

The Next Sprint

Release Planning

Common challenges and next steps to real world implementation

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Agile Development with Scrum

Course Length
2 Days
TE7002_20091118

Course Description: Scrum has become a leading agile development method. This 2-day course leads the students to understand what adopting Scrum will mean for their organization, and themselves.
Agile Development with Scrum begins with the concepts and terminology of iterative development: developing and delivering portions of a total product according to a well-defined schedule and partitioning of product features. The business case for iterative development is thoroughly covered.

The course then discusses the principles and practices that define an agile approach to software development, including: delivering continual value to the customer, flexible and rapid response to change, short time-boxed iterations, and rapid feedback on project state.

The course next covers each of Scrum's practices and, most importantly, the structure and flow of how a Scrum project is conducted according to agile principles.
Example user stories demonstrate how this simple technique can capture the goals of most value to users, and where user stories fit into a Scrum project. Estimation using both story points and ideal days is thoroughly discussed, along with the critical concepts of team velocity and the value of burndown charts.
Extensive exercises allow students to plan a release, estimate user stories and tasks, plan and populate a sprint, and understand how to conduct and end a sprint, with special consideration of software deployment options.

The course thoroughly discusses how moving to Scrum affects the major project stakeholders: business analysts, project managers, developers, testers, and documentation writers.

Who Should Attend: This course is for software developers, project managers, business or system analysts, and technical managers who wish to learn the philosophy and practices of Scrum.

Prerequisites: Experience in software development, project management, or business or systems analysis is desirable, but not mandatory.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Articulate the agile principles, practices, and roles of Scrum.
- Write user stories.
- Perform Scrum Release Planning, and Scrum Sprint Planning.
- Estimate user stories and tasks using Planning Poker.
- Deconstruct user stories into tasks and ideal day estimates.
- Carryout a sprint with Daily Scrum Meetings.
- End a Sprint with Sprint Reviews and Sprint Retrospectives.
- Use Scrum with multiple, or distributed, project teams.
- Easily pass any Certified Scrum Master certification class.

Course Outline:

Course Introduction

Iterative Development
The Iterative Philosophy
Structure of a Typical Iteration
The Business Case for Iteration
Group Discussion

Agile Development
Agility — What Does It Mean?
The Agile Manifesto
The 12 Agile Principles
Agile Practices
Group Discussion

Scrum
Scrum Practices
Structure of Scrum
3 Work Products
3 Project Roles
4 Project Meetings
Group Discussion

User Stories & Requirements
What is a User Story?
What Does a User Story Look Like?
Where Do User Stories Fit in Scrum?

Planning a Scrum Project
Introduce Course Exercise Case Study
The Product Backlog
Mapping Features to Product Backlog
Identify User Stories from Features
Estimating Effort for User Stories

Agile Estimation
Story Points & Ideal Days
Example: Assigning Story Points
Estimating Actual Effort
Velocity
Velocity & Actual Time
Estimating with Planning Poker
Exercise: Applying Planning Poker
Group Exercise: Estimating User Story Effort
Group Exercise: Release Planning in Scrum

Planning a Scrum Sprint
Mapping a Sprint Backlog to Tasks
The Sprint Planning Meetings
Example: Splitting User Stories into Tasks
Velocity-driven Planning
Commitment-driven Planning
Group Exercise: Sprint Planning in Scrum

Executing a Sprint
The Task Board
The Daily Scrum
Accumulating the Burndown
Team Self-Management
Aborting a Sprint
Finishing Early or Late
Testing within the Sprint
Bugs in an Iteration
Ending the Sprint
Deploying the Software

Scrum's Affect on Stakeholders
Business Analysts
Developers
Project Managers
Testers
Documentation Writers

Scaling Scrum
Planning for Dependencies
Planning for Multiple-Team Projects

Wrapup

References

Appendix A: Agile Alternatives
Extreme Programming
Agile Unified Process

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Certified ScrumMaster

Course Length
2 Days

TE7003_20100427

Course Description: This highly interactive 2-day workshop provides a foundational understanding of the Scrum framework and gives participants hands-on practice applying Scrum in multiple project settings and situations.

Who Should Attend: This course is for anyone on a team who wishes to learn how to use Scrum to create or participate on high performing teams focused on rapid value delivery to customers. ScrumMasters, Product Owners, and other Scrum Team Members will benefit from this class.

Prerequisites: There are no prerequisites.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Understand the core principles, strategies, and practices of Scrum
- Practice applying Scrum in multiple project settings and situations
- Cultivate the Scrum mindset vital to effective use of Scrum
- Gain skills and confidence in effectively communicating Scrum principles to managers and team members alike

Course Outline:

Day 1
Introduction to Agile
Scrum 101
The Scrum Master Role
The Product Owner Role
The Team Role
Definition of "Done"
Retrospectives

Day 2
New Ideas & Questions
Product Backlog and User Stories
Estimation & Planning
Planning Game
Change Management
Conflict & Feedback
Review of Backlog & Questions
Next Steps