

Introduction to Agile

Lesson 00:



Course Goals and Non Goals



Course Goals

- Introducing participants to the Agile Software Development Model
- Introduction to Agile Practices & Methods
- Understanding SCRUM
- At the end of this program, participants gain an understanding of how to transition sound traditional test practices into an Agile Development Environment
- Understand the key differences between traditional and Agile Testing Practices
- Understand the roles and responsibilities of a typical Agile Testing Team



Course Non Goals

- This course does not cover other than anything the course goals

Pre-requisites



Basic knowledge of Software Development Life Cycle
Basic knowledge of Programming Concepts
Basic Knowledge of Software Testing Fundamentals

Intended Audience

Novice Developers
Test Engineers



Day Wise Schedule



Day 1

- Lesson 1: Agile Process Framework
- Lesson 2: Agile Methods and Practices - SCRUM

Day 2

- Lesson 3: Agile Methods and Practices - Extreme Programming (XP), Lean Software Development & Kanban
- Lesson 4: Introduction to Agile Testing
- Lesson 5: Agile Testing Quadrants and Agile Test Planning

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Lesson 1: Agile Process Framework

- 1.1. History of Traditional Software Development Model
- 1.2 Software Development Model and SDLC
- 1.3 "Waterfall Model" – An Overview
- 1.4 Waterfall or Sequential Based Development Model
- 1.5 "Real Life" – Waterfall Model
- 1.6 "Waterfall Model" – Advantages
- 1.7 "Waterfall Model" – Disadvantages
- 1.8 Agile Software Development – Definition
- 1.9 Agile Development Model
- 1.10 Graphical Illustration of Agile Development Model
- 1.11 Why use Agile?
- 1.12 Agile Manifesto and Principles
- 1.13 12 Principles of Agile Methods
- 1.14 Agile Values

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Lesson 1: Agile Process Framework (Cont.)

- 1.15 What is NOT an Agile software development?
- 1.16 Foundation of an Agile software development Method
- 1.17 Common Characteristics of Agile Methods
- 1.18 Agile Methods and Practices
- 1.19 When to use Agile Model?
- 1.20 Advantages of Agile Model
- 1.21 Disadvantages of Agile Model
- 1.22 Difference between Agile and Waterfall Model
- 1.23 Agile – Myths and Reality
- 1.24 Agile Market Insight

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Lesson 2: Agile Methods and Practices - SCRUM

- 2.1 Introduction to SCRUM
- 2.2 Scrum Roles and Responsibilities
- 2.3 Scrum Core Practices and Artifacts
 - 2.3.1 User Story
 - 2.3.2 Sprint
 - 2.3.3 Release Planning Meeting
 - 2.3.4 Sprint Planning Meeting
 - 2.3.5 Daily Scrum Meeting (Daily Stand up)
 - 2.3.6 Sprint Review Meeting
 - 2.3.7 Retrospective
 - 2.3.8 Product Backlog
 - 2.3.9 Sprint Backlog
 - 2.3.10 Burn-Down Chart
 - 2.3.11 Velocity

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Lesson 2: Agile Methods and Practices – SCRUM (Cont.)

- 2.3.12 Impediment Backlog
- 2.16 Definition of “Done”
- 2.17 Splitting User Story into Task
- 2.18 Why to Split User Story into Task?
- 2.19 Guidelines for Breaking Down a User Story into Tasks
- 2.20 Examples of Scrum Task Board
- 2.21 Planning Poker®
- 2.22 Planning Poker® - Process/Steps
- 2.23 What are Story Points?
- 2.24 How do We Estimate in Story Points?
- 2.25 What Goes into Story Points?

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Lesson 3: Agile Methods and Practices - Extreme Programming (XP), Lean Software Development & Kanban

- 3.1 Introduction to Extreme Programming
- 3.2 The Rules of Extreme Programming
- 3.3 Extreme Programming (XP) - Principles
- 3.4 Extreme Programming (XP) – Key Terms
- 3.5 Introduction to Lean Software Development
- 3.6 Principles of Lean Software Development
- 3.7 What is Kanban?

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Lesson 4: Introduction to Agile Testing

- 4.1 What is Agile Testing?
- 4.2 Agile Team - Roles and Activities
- 4.3 Where does Tester fit in Agile Team?
- 4.4 Agile Team – Tester’s Role and Responsibilities
- 4.5 Agile Team – Test Manager’s Role and Responsibilities
- 4.6 How is Agile Testing different?
- 4.7 Traditional Testing Vs. Agile Testing
- 4.8 What is Iteration 0?
- 4.9 User Story Perspective Agile Testing Process
- 4.10 Tester’s Change in Mind-Set – A key to success

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Lesson 5: Agile Testing Quadrants and Agile Test Planning

- 5.1 An overview of Agile Testing Quadrants
- 5.2 Agile Testing Quadrant 1, 2 & 3 Goals
- 5.3 Agile Testing Quadrant 1, 2 & 3 Toolkit
- 5.4 Test Planning in Agile Testing

References



Websites :

- www.extremeprogramming.org
- www.agilemanifesto.org
- www.wikipedia.org
- www.scrum-institute.org
- www.agilealliance.org
- www.agilemodeling.com
- www.scrumguides.org
- www.mountangoatsoftware.com

Books :


- Agile Testing: A Practical Guide for Testers and Agile Teams - Lisa Crispin, Janet Gregory
- User Stories Applied: For Agile Software Development – Mike Cohn

Other Parallel Technology Areas

None



Next Step Courses



None