

Certified Scrum Developer CSD





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REF: B2216 DATE: 22 - 26 December 2024 Venue: Sharm El-Sheikh (Egypt) - Fee: 4095 Euro

#### Introduction:

This training program provides participants with essential knowledge and skills to become a Certified Scrum Developer CSD. It empowers them to understand Agile principles, Scrum framework, and practices essential for effective software development within Scrum teams.

# **Program Objectives:**

## At the end of this program, participants will be able to:

- Understand Agile values and principles.
- Apply Scrum practices and ceremonies in software development.
- Collaborate effectively within Scrum teams.
- Develop high-quality software using Agile engineering practices.

# **Targeted Audience:**

- · Software Developers.
- QA Engineers.
- · Technical Leads.
- Personnel involved in Agile software development processes.

# **Program Outline:**

#### Unit 1:

# Agile and Scrum Fundamentals:

- Introduction to Agile methodologies.
- · Agile Manifesto and principles.
- Scrum framework overview: roles, events, and artifacts.
- Scrum values and their importance in team dynamics.
- Comparing Scrum with other Agile frameworks Kanban, XP.



#### Unit 2:

# Agile Software Development Practices:

- User Stories: writing, estimating, and refining.
- Sprint Planning: preparing backlog items for development.
- Daily Stand-ups: conducting effective daily Scrum meetings.
- Sprint Review and Retrospective: evaluating sprint results and continuous improvement.
- Definition of Done DoD and its role in delivering increments.

#### Unit 3:

# Test-Driven Development TDD:

- TDD principles and benefits.
- Red-Green-Refactor cycle in TDD.
- Writing unit tests using testing frameworks JUnit, NUnit.
- Integration of TDD with Scrum development process.
- Continuous integration and automated testing practices.

## Unit 4:

#### Pair Programming and Code Reviews:

- Pair Programming: benefits and techniques.
- Conducting effective pair programming sessions.
- Code Reviews: principles and best practices.
- Peer feedback and collaborative code improvement.
- Tools and techniques for code collaboration GitHub, Bitbucket.

#### Unit 5:

## Agile Software Design and Refactoring:

• Principles of Agile software design.



- Refactoring techniques and patterns SOLID principles.
- Implementing design patterns in Agile projects.
- Emergent design and evolutionary architecture.
- Balancing flexibility and maintainability in Agile development.