

## Scrum & TDD: A Guided Tour ☺

### Introduction:

Agile and especially scrum & TDD has been a buzz word now a days. Most of the big IT brands have either already moved to scrum or in process of. If you are wondering how is scrum different, what challenges of software development does it address and why, then this two days' workshop is aimed at familiarizing the participants with scrum methodology along with basics of TDD. It will also provide an overview of how to estimate and plan scrum project.

**Learning Objectives:** The course will enable participants to ...

- Understand scrum framework and terminologies
- Appreciate how and why scrum is different from traditional waterfall methods
- Recognize advantages of scrum along with challenges associated
- Get an overview of user stories
- Learn different estimation techniques like story point, ideal days, T-shirt sizing
- Learn how to plan a scrum project – release and sprint planning
- Understand basics of TDD
- Experience hands-on TDD with a case study

### Participants' profile:

- It would help if participants have worked on projects, project management background will be an advantage.
- Basic know-how about Agile would be nice to have but not a must requirement

**Duration:** 2.5 days

### Course Outline:

Day	Session	What Is Covered	Method Followed
1	1	Introduction, expectation setting, agenda	
1	2	Agile PM Understand concept of iterative and incremental development How and why did it originate What PM challenges it can address and how Agile manifesto	Interactive discussion
1	3	Requirements management <ul style="list-style-type: none"> <li>• User stories – why and how</li> <li>• How this differs from traditional requirements gathering approach</li> <li>• What benefits it can bring</li> </ul>	Case study based Activity based – participants to elicit requirements for a sample case study project
1	4	Estimating projects <ul style="list-style-type: none"> <li>• Agile estimation techniques like poker, T-shirt sizing, etc (size, effort and duration estimates)</li> </ul>	Case study based Activity based – participants to estimates requirements captured on previous day for a sample case study project

Day	Session	What Is Covered	Method Followed
		<ul style="list-style-type: none"> <li>How it can help address challenge with uncertainty associated with estimates</li> <li>How is it different than traditional approach</li> </ul>	
2	1	<p>Planning projects</p> <ul style="list-style-type: none"> <li>Why up-front planning may not work</li> <li>How does agile planning work (planning onion)</li> <li>Release and sprint planning overview</li> <li>How it can help address challenge with uncertainty associated with plans</li> <li>How is it different than traditional approach?</li> </ul>	Interactive discussions
2	2	Summarizing scrum framework understanding	Interactive game and debriefing
2	3	<p>Basics of TDD</p> <ul style="list-style-type: none"> <li>Importance of TDD in agile</li> <li>Writing good unit tests, importance of test coverage</li> <li>Top 10 reasons to avoid TDD</li> </ul>	Interactive discussions
2	4	<p>Get into TDD</p> <ul style="list-style-type: none"> <li>Explore what a non-testable code looks like</li> <li>Explore how to make a code testable</li> <li>Explore how the same code can be written test driven</li> <li>Advantages and limitations of TDD</li> </ul>	Interactive discussions
3	1	<p>Hands on TDD</p> <ul style="list-style-type: none"> <li>My first Junit with Junit 4</li> <li>Refactoring legacy code to make it testable</li> <li>Red bar, green bar pattern</li> <li>Demonstrate how the coverage improves</li> </ul>	Hands on implementation

### Pre-requisites & Assumptions:

- It is assumed that the demonstration will happen with JUnits
- Client team to provide sample project case. This should be made available at least 1 week before the training date.
- The required hardware and software set up to be taken care by the client team
- All the team members should have identical software & hardware configuration – to be ensured by the client team

Note: This overall flow of the course is subject to change based on participants' interactions & queries.