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SITARA CEP : 1

Requirements Engineering Workshop

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Presented by:
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This Book Belongs To …

Tutorial Objectives:

1. Establish the importance of ‘requirements engineering’ as a core competency
2. Organizations differentiate themselves when they can associate competitive advantage in doing so

Tutorial Abstract:

This tutorial is delivered in a workshop style. It engages participants to think through the following key questions within a software engineering perspective.

1. **What is the process for requirements capture right now?**
2. **What are the most common issues with project requirements? List the top 3 reasons.**
3. **When in the lifecycle do you realize that the issues are with requirements?**
4. **What steps are in place to ensure 'clarity' in requirements elicitation?**
5. **What steps are in place to ensure 'completeness' during requirements capture?**
6. **How do projects handle 'complexity' issues right now? How do you see this situation to improve?**
7. **What are the typical issues faced during 'system testing' which could have been avoided in the first place?**
8. **What effects have you noticed in later life cycle phases as a result of poor articulation of project requirements?**
9. **What are the typical issues while conducting requirements analysis/needs analysis?**
10. **List the top 5 lessons you have learned from post-mortems and project retrospectives on what should be done to improve requirements engineering capability?**

Asking the right questions and eliciting the customer’s functional and non-functional user requirements and system requirements is half-battle-won. It is important to understand that requirements will change on any live project. Projects must therefore plan to handle requirements churn and mitigate the resulting effects on the subsequent phases of the software engineering life-cycle. While documenting and updating the understanding obtained on the project is a necessary step, it is not a sufficient assurance that the project characteristics such as complexity, clarity and consistency can be stabilized.

Traceability and keeping track of how the requirements allocated to different modules/components evolve is a necessary management overhead for proper impact analysis to result. Conceptual understanding of the big-picture and decomposing this understanding using a top-down approach is a well established software engineering principle. In doing so, what are some of the best practices to keep in mind?

Exercises are designed to provide a conceptual and a hands-on working knowledge of understanding ambiguities in requirements, writing good user requirements, exploring feasibility study using viewpoints-oriented approach, importance of identifying the key stakeholders and articulation of requirements using generally accepted requirements engineering practices (GAREP). This understanding will further be honed using standard industry frameworks for requirements management such as the CMMI.