

Iterative Development Fundamentals

Objectives <ul style="list-style-type: none"> • Introduce, discuss, and apply the adaptive, iterative approach • Introduce object-oriented concepts and commonly used UML diagrams • Apply iterative time element planning <ul style="list-style-type: none"> • Releases • Phases • Iterations • Understand iterative phase milestones <ul style="list-style-type: none"> • Objectives • Evaluation criteria • Apply pro-active risk management <ul style="list-style-type: none"> • Rework • Risk exposure • Plan iterations with use cases <ul style="list-style-type: none"> • Timeboxing • Assessment • Discuss iterative resource management • Apply use case point effort estimation technique 		Description <p><i>Iterative Development Fundamentals</i> teaches how to apply traditional project management concepts such as planning, controlling and monitoring, assessment and measurement, and risk management to the iterative lifecycle. Beginning with an overview of iterative development and the object-oriented and UML concepts often used to describe the system to be built, the course then describes some of the challenges with the traditional waterfall approach and how iterative development meets those challenges. Then the four phases of the iterative lifecycle are discussed along with their respective objectives and evaluation criteria. Formulating coarse-grained plans in through release and phase planning are discussed. The course discusses how risk mitigation drives the iterative planning approach and how to determine which use cases to do in which iteration. Fine-grained planning at the iteration level and how to assess an iteration are also described. The course finishes with a discussion of how to estimate effort and do iterative resource planning. Students continually apply the iterative techniques throughout the course in hands-on group exercises.</p>	
		Course Outline (Modules and Topics) <ul style="list-style-type: none"> • Iterative Process Overview <ul style="list-style-type: none"> • Features and benefits • Challenges and best practices • 2+9+1 modeling framework • Introduction to Unified Modeling Language <ul style="list-style-type: none"> • Object-oriented concepts • Core UML diagrams • Introduction to Iterations <ul style="list-style-type: none"> • Challenges with waterfall approach • Managing constant change • Define iteration • Iteration lifecycle • Project time elements • Plan Phases <ul style="list-style-type: none"> • Discuss four milestones, objectives, and evaluation criteria • Release and phase planning • Manage Risk <ul style="list-style-type: none"> • Risk management approaches • SEI Software Risk Evaluation (SRE) • Rework and organization risk • Drive Iterations with Use Cases <ul style="list-style-type: none"> • Use case modeling introduction • Trace risks to use cases • Aggregate use case risk exposure • Plan Iteration <ul style="list-style-type: none"> • Iteration planning cycle • Timeboxing and scope definition • Iteration assessment • Plan Resources <ul style="list-style-type: none"> • Project roadmap • Resource management • Estimate Effort <ul style="list-style-type: none"> • Use case points estimation technique 	
Duration 2 days	Course # 01-0501	Prerequisites <ul style="list-style-type: none"> • Leadership experience on software development projects • Experience applying traditional project management techniques 	In partnership with
Audience <ul style="list-style-type: none"> • Project manager • Resource manager • Architect • Business/system analyst • Test manager/analyst • Team lead • IT manager 		Continuing education <ul style="list-style-type: none"> • Requirements Management with Use Cases • Object-Oriented Analysis and Design with UML • Test Case Analysis with UML 	
		Classroom requirements <ul style="list-style-type: none"> • No computers required 	

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