

Use Case Modeling

Course Length – 2 Days

PDU's – 13

Course Description: This hands-on, interactive course helps participants examine the fundamentals of Use Case Modeling and its application for gathering requirements in the project life cycle. This course will present an extensive, iterative Use Case Modeling methodology including identification, development, and implementation. Students will participate in Use Case processes, examine the importance/impact of Use Cases, and gain the skills necessary to utilize Use Case Modeling effectively as a requirements gathering tool.

Method of teaching: *Students will use discussion, cases, and group activities to facilitate the course.*

Course Objectives:

- Understand the importance of gathering requirements in project management
- Define what constitutes a quality requirement and what purpose it serves
- Examine guiding principles for gathering quality requirements
- Examine the challenges of effective requirements gathering
- Examine classic mistakes made in gathering requirements
- Examine the difference between functional and non-functional requirements
- Understand the “black box” mentality of users and its implications on requirements gathering
- Compare/Contrast software development project life cycle models
- Examine the “4+1” view of software architecture
- Compare/Contrast traditional requirements gathering techniques with Use Case Modeling
- Examine the history and evolution of Use Case Modeling
- Examine the benefits of Use Case Modeling
- Define who benefits from Use Case Modeling
- Understand the goals of Use Cases
- Define Use Case Diagrams and their purpose
- Compare/Contrast Use Cases, Use Case Diagrams, and scenarios
- Define scenarios and paths as they relate to Use Cases and Use Case Diagrams
- Examine important components needed in gathering requirements including the mission, vision, values, SOW, risk analysis, prototypes, use cases, glossary, constraints, and business rules catalog
- Examine the Use Case Template and its components
- Define Use Case components including users, basic path, alternative path, exception path, extension points, triggers, assumptions, preconditions, post-conditions, and author
- Examine how to use a Use Case Modeling Workshop in Use Case development

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- Define the use of iterative and incremental approaches to Use Case Modeling
- Examine three types of iterations in Use Case Modeling (Façade, Filled, & Focused)
- Understand the objective, steps, tools, and deliverables of the Façade Iteration
- Understand the objective, steps, tools, and deliverables of the Filled Iteration
- Understand the objective, steps, tools, and deliverables of the Focused Iteration
- Understand the purpose of stereotypes (extend and include) in specializing Use Cases
- Define supporting artifacts to Use Cases such as packages, components, and class models
- Examine the benefits to requirements traceability using Use Case Modeling
- Compare/Contrast Use Cases and Test Cases
- Understand how to manage Use Case influenced projects by requirements rather than tasks
- Examine the application of Use Cases to non-requirement gathering activities