Rational Rose Fundamentals

Course Summary

Description

This course is an introduction to Rational Rose.

Objectives

At the completion of this course, the student will be able to:

- Create, update and save UML models containing use-case diagrams, class diagrams, interaction diagrams, state-transition diagrams, component diagrams, and deployment diagrams.
- Understand the Rational Rose approach to team development.
- Model the application using Rational Rose.
- Implement the software based on the design.
- Establish a software development methodology for in-house development.

Topics

- Introduction to modeling with Rose
- Getting started with Rose Product
- Introduction to Application Window, Toolbox, Documentation Window
- Introduction to UML
- UML Notation and building blocks
- Class Diagrams
- Use-Case Diagrams
- State Machine Diagrams
- Interaction Diagrams
- Component Diagrams
- Deployment Diagrams
- Stereotypes

Audience

This course is designed for analysts, software engineers, application experts, and technical project managers using Rational Rose.

Prerequisites

There are no prerequisites for this course.

Duration

One day

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Course Summary

I. Introduction to modeling with Rose
- A. What is a model?
- B. Why do we model?
- C. Software Design Methodologies
- D. Structured Approach
- E. Object Oriented Approach
- F. Object Orientation Vs Procedure Orientation
- G. What is OBP?
- H. What is OOP?
- I. What is an object?
- J. Encapsulation
- K. Inheritance
- L. Polymorphism

II. Getting started with Rose Product
- A. What is Rational Rose?
- B. Application Window
- C. Toolbox
- D. Browser
- E. Documentation Window
- F. Diagram Window
- G. Overview Window
- H. Specification Window
- I. Saving & Printing Specifications and Diagrams

III. UML Building blocks
- A. History of UML
- B. What is UML?
- C. Building blocks of UML
- D. Things
- E. Structural
- F. Class
- G. Interface
- H. Collaboration
- I. Use case
- J. Active class
- K. Component
- L. Node
- M. Behavioral
- N. Interaction
- O. State machine
- P. Grouping
- Q. Packages
- R. Annotational
- S. Note

IV. UML building blocks continued
- A. Relationships
- B. Dependency
- C. Association
- D. Generalization
- E. Realization
- F. Diagrams
- G. Class diagram
- H. Object diagram
- I. Use case diagram
- J. Sequence diagram
- K. Collaboration diagram
- L. State chart diagram
- M. Activity diagram
- N. Component diagram
- O. Deployment diagram

V. Introduction to Diagrams and Specifications
- A. Diagrams Window
- B. Creating, Linking and Displaying Diagrams
- C. Model Elements
- D. Correlations
- E. Specifications Window
- F. Editing and Displaying Specifications
- G. Navigating the tabs

VI. Class Diagrams
- A. Overview
- B. What is a Class?
- C. What is an Object?
- D. Class Diagram Overview
- E. Class Specification
- F. Class Attributes & Operations
- G. Association Specification
- H. Generalize Specification
- I. Dependency Specification
- J. Is-a Vs Has-a

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VII. Use-Case Diagrams
- A. Overview
- B. Creating and Displaying Use-Case Diagrams
- C. Actors
- D. Use-Case
- E. External Events
- F. Use-Case Diagram Toolbox
- G. Dependency
- H. Generalization

VIII. State Machine Diagrams
- A. Overview
- B. Creating and Displaying State Machine Diagram
- C. Activity Diagram Overview
- D. Understanding Workflows
- E. Workflow Modeling
- F. State Transitions
- G. Decisions
- H. Synchronization
- I. Object Flow

IX. Interaction Diagrams
- A. Overview
- B. Introduction to Collaboration Diagrams
- C. Creating & Displaying Interaction Diagrams
- D. Introduction to Sequence Diagrams
- E. Creating & Displaying Sequence Diagrams
- F. Collaboration Diagram Toolbox
- G. Sequence Diagram Toolbox
- H. Sequence Numbering

X. Component Diagrams
- A. Overview
- B. Creating & Displaying Component Diagrams
- C. Component Diagram Toolbox
- D. Component Specification
- E. Package Specification

XI. Deployment Diagrams
- A. Overview
- B. Creating & Displaying Deployment Diagrams
- C. Deployment Diagram Toolbox
- D. Processor Specification
- E. Device Specification
- F. Connection Specification
- G. Process Specification

XII. Stereotypes
- A. Overview
- B. Creating Stereotypes
- C. Viewing Stereotypes
- D. Adding Stereotypes to Diagram Toolbox