UML with Enterprise Architect for UML Practitioners

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Course Overview

This course is designed to be an detailed introduction to Enterprise Architect; it is aimed at people who want to quickly gain a proficiency in the use of Enterprise Architect and who have some prior knowledge of the UML. It is detailed in its coverage and attempts to teach most of the important aspects of the application, its structure and features, including some of the more advanced features of the tool.

What will I learn?

This course is aimed at newcomers to EA who have past experience in the UML and as such it's objectives are to cover all the UML diagrams and most of the features in the tool. Delegates will gain a practical knowledge of UML and EA to allow them to immediately start working on projects using UML and EA.

Course Style

50% lectures and 50% practical (hands on labs using the Enterprise Architect tool.

Course Contents

• Introduction to UML
o Brief introduction covering what the UML is including diagram types and very brief history

• Introduction to EA
o What is EA
o EA Architecture (where is the model stored and high level differences between versions)
o A look at the object browser and how models are structured using views and packages
o Diagramming techniques
o EA Options menu (overview)
o EA Settings menu (overview)
o How to search the model
o Focus is on getting new users to a point where they are familiar with how to use the tool and where to find certain features; also trying to instil best practice early on such as using package diagrams to structure views and reuse of elements in the model.

• Use Cases
o How to draw the Use Case diagram
o Identification of use cases and actors
o Discussion on application within iterative development methodologies
o Specification of Use Cases (Basic Flow, Alternate Flows, Exception Flows) using text
o Common issues and their solutions

• Requirements modelling and tracing in EA
o Internal and External requirements in EA
o How to draw the custom diagram for requirements in EA
o Realising and tracing requirements
o Change management using requirements diagrams
o Importing and Exporting requirements

• Activity diagram (documenting use cases and business processes diagrammatically)
o How to draw Activity diagrams
o Look at how to document use case specifications diagrammatically with activity diagrams and the benefits it brings
o Look at business process modelling using activity diagrams and the advantage of using structured activities

• Class Diagram
o Discuss what classes and objects are (very brief)
o How to draw class diagrams
o Differences between domain modelling and implementation modelling)
o Object diagram (brief overview)

• Object Diagram
• Package Diagram
• State Machine Diagram
o How to draw State Machine Diagrams
o How to Model an Object State in EA so that those states are available for that object throughout the model.

• Sequence Diagram
o Discuss differences between using sequence diagrams for analysis or design
o How to draw sequence diagrams

• Component Diagram
o How to draw Component Diagrams
o Discuss Applications of Component Diagrams such as analysing existing Architectures to look for possible optimisations
o Show how to link component class design to the component without compromising the structure of the model

• Composite Structure Diagram
o How to draw Composite Structure Diagrams
o Using collaborations to model patterns or as a data mapping tool.

• MDA
o What is a PIM
o What is a PSM
o PIM to PSM Transformations
o Brief look at the transformation templates in EA

• Code Engineering
o Forward and Reverse Engineering Code including reverse engineering binaries
o Forward and Reverse Engineering Databases (look at Data Modelling using Class Diagrams)
o Creating Sequence diagrams from existing applications through debugging them in EA.
o A look at the Code Engineering Templates in EA
o Discuss Pro's and Con's of Code Engineering.

• Data Modelling
o How to forward & reverse engineer DDL
o How to use MDA transforms to create a data model from a PIM

• Documentation in EA
o How to generate RTF documentation in EA
o Customise RTF templates
o How to generate HTML documentation in EA
o Customise HTML templates
o Virtual documents

Prerequisites

A basic knowledge of the Unified Modelling Language and Object Oriented design concepts.

Recommended Follow-On Courses

1 day Enterprise Architect for power users

Duration

2 days