Unified Modeling Language (UML) For Business Analysts

Description

Overview
The OMG’s Unified Modeling Language (UML®) has become the de-facto standard for modeling requirements and designing software systems. It provides a notational language to help BAs better understand customer developers, and ultimately reduce overall project costs. These UML diagrams work well for both waterfall and agile projects.

This 2-day hands-on workshop provides the skills and techniques that Business Analysts (BAs) need to make the most of UML. It starts with the background and history of the UML and then leads the BA through the step-by-step process of using the UML to help visualize complex requirements and business rules. The key concepts of structural and behavioral modeling are covered in some detail through interactive, example-led workshops. These hands-on workshop sessions ensure the participants will be able to model their requirements following the course.

Objectives

- Provide an awareness of the principles and concepts of visual modeling.
- Enable attendees to appreciate UML modeling techniques.
- Understand how UML can be used to model requirements and their related scenarios.
- Recognize the different diagrams in UML.
- Read and understand the basics of all the diagrams.
- Select and apply the most appropriate diagram to fit your purpose.

Workshop Details
A hands-on workshop will be used throughout the course to emphasize the concepts learned and allow the students to experience the use of UML diagrams and techniques. The participants can choose to their own project or use one of the predefined workshops (University Registration System or Supermarket Barcode System) a Case Study for performing the exercises. These workshops emphasize the creation of the following deliverables and UML models:
Outline

Day 1

Module 1 – Course Introduction

- Administration and Introductions
  - Exercise: Ice Breaker – Castle Block Diagram

Module 2 – Object-Oriented (OO) Principles

- Abstraction
- Classification
- Generalization
- Aggregation
- Encapsulation
- Information Hiding

Module 3 – The Unified Modeling Language (UML)

- What is the UML?
- Why are modeling languages important?
- Overview of the different UML diagrams

Module 4 – Development Approaches

- What is a Software Development Lifecycle (SDLC)?
- Different SDLC approaches (Waterfall, Iterative, Agile, etc.)
- Utilizing Model Driven Architecture (MDA) for developing software

Module 5 – The Use Case Diagram

- Describe the purpose and value of use cases
- Introduce a use case approach for requirement definition
  - Workshop: Draw a Use Case Diagram
Day 2

Module 6 – The Use Case Specification

- Review the Use Case template
- Define the Use Case specification components
- Writing effective scenarios
- Workshop: Write the Main, Alternate, and Exception flows

Module 7 – The Class Diagram

- Definition of objects and classes
- How to define objects, attributes, and operations
- Links, associations, and multiplicity
- Using a Use Case scenario to define classes, attributes, operations, and associations
- Generalization and polymorphism
- Aggregation and composition
- Workshop: Draw a Class Diagram

Module 8 – The Activity Diagram

- Why and when to use an Activity Diagram?
- Activity diagramming notation
- Actions & Activities
- Concurrency & Synchronization
- Advanced diagramming concepts
- Workshop: Draw an Activity Diagram

Module 9 – The Sequence Diagram

- Introduction to interaction modeling
- Translating Use Cases into Sequence Diagrams
- Objects, events, sequence, and messages
- Modeling Synchronous vs. asynchronous behavior
- Sequence diagramming notation
- Workshop: Draw a Sequence Diagram

Module 10 – The State Diagram

- Why and when to use a State Diagram?
• How to define a state?
• Review notation on events, transitions, and states
• **Workshop:** Draw a State Diagram

**Module 11 – The Way Forward**

• Identify References for future study

**PreRequisites**

It is recommended that the participants have a working knowledge of traditional Business Analysis tasks and techniques

**Audience**

This course is expressly designed for the advanced Business Analyst who would like to utilize visual modeling techniques for capturing, analyzing, and validating requirements.

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**Class Dates**

Request a Date or a Private Class below.

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**MAX Educ. Savings**
Related Classes

Fundamentals of SQL Querying

Introduction to XML

Data Modeling Workshop

Technical Business Analysis Bundle