

Domain Modeling with UML

Objectives

- Understand fundamental Unified Modeling Language® (UML®) modeling elements
- Explain business modeling activities and work products
- Apply UML diagrams for domain modeling
 - Activity diagram
 - Class diagram
- How to model a business workflow using activity diagrams
- How to model the flow of a use case using activity diagrams
- How to build a domain model using class diagrams

Description

Domain Modeling with UML introduces a practical approach to applying Unified Modeling Language (UML) activity and class diagrams for modeling workflows and entities in the business domain. The course begins with an introduction to activity diagram fundamentals including transitions, decisions, guards, forks, and joins. This basic activity diagram syntax is used to model how a set of use cases interact with each other in a context of a larger scale business workflow. The same syntax is then applied to describing the significant flows of a single use case. Then students go through an introduction of class diagram fundamentals including objects, classes, attributes, operations, and relationships. Class diagrams are then applied to modeling business entities and their relationships. Students then learn how to structure activity diagrams using swim lanes and input/output objects. From the structured workflow diagrams, the high-level domain model is refined with attributes, operations, and newly identified classes. Students apply what they learn in various classroom modeling exercises and discussions.

Course Outline (Modules and Topics)

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| <ul style="list-style-type: none"> • Activity Diagram Fundamentals <ul style="list-style-type: none"> • Activity, transition • Decision, guard • Fork and join • Different uses for activity diagrams • Model Workflow <ul style="list-style-type: none"> • Overall, high-level behavior business and system • Significant flows of single use case or major process • Class Diagram Fundamentals <ul style="list-style-type: none"> • Object and class • Attribute and operation • Package • Relationships and multiplicity • Different uses for class diagrams | <ul style="list-style-type: none"> • Identify Business Entities <ul style="list-style-type: none"> • Business modeling work products • Business entities from business actors • Business workers from business use cases • Business entities using noun-verb analysis • Structure Workflow <ul style="list-style-type: none"> • Structure activity diagrams • Swim lanes • Input and output objects using object flows • States of objects • Refine Domain Model <ul style="list-style-type: none"> • Operations and attributes • Newly identified classes and relationships |
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Duration

1 day

Course

01-0302

Prerequisites

- Use Case Modeling Fundamentals course
- Experience with traditional requirements elicitation and analysis techniques – or – Requirements Gathering Fundamentals course

Continuing education

- Requirements Management Fundamentals
- UML Fundamentals
- Object-Oriented Analysis with UML
- User Interface Design with UML

Classroom requirements

- No computers required

In partnership with

Audience

- Business architect
- Business analyst
- System analyst
- Data analyst

Proven ▶▶▶▶▶ Practical ▶▶▶▶▶ Process™