Business Modeling using UML and BPMN

A business model is an abstraction of how a business functions. It models the goals, organization, processes, objects, and events of a business. A business model can tell us how a business functions today or how we plan for it to function in the future. We do business modeling to analyze a business and mold it to meet our business goals. Alternatively, we model pertinent areas of the business to inform a systems development project about the business processes, business objects, and business rules to be automated. This course teaches how to create business models using the Unified Modeling Language (UML) and Business Process Modeling Notation (BPMN).

Objectives:
Upon completion of this course, the student will be able to:
- Write a Business Vision document defining the business strategy and goals of the business.
- Model business processes and business rules using UML business use case diagrams and business use cases.
- Model workflow in business processes using UML activity diagrams.
- Model workflow in business processes using BPMN process diagrams.
- Model business objects using UML class diagrams.
- Model the states of business objects using UML state machine diagrams.

Audience:
This course is designed for the business process analysts and business designers who perform business modeling. This course is also of benefit to project managers, systems analysts, and other project roles that are recipients of the artifacts produced.

Prerequisites
None

Duration:
3 days
Related Courses:

Students who take this course would also benefit from the following courses:

- **Requirements Elicitation and Facilitation**: teaches information elicitation and meeting facilitation techniques that are invaluable throughout business modeling activities.

- **Advanced Use Case Lab**: teaches advanced concepts and guidelines for writing high quality use cases. While this course is targeted at system use cases, most of the information applies equally well to business use cases.

Outline:

1. **Business modeling defined**
   - Define the business modeling process
   - Business modeling strategies
   - Key business modeling artifacts
     - Target organization assessment
     - Business vision
     - Business architecture document
     - Business use-case model
     - Business analysis model
   - Essential business concepts
     - Goals
     - Processes
     - Resources
     - Rules
   - Explore business model perspectives most pertinent to systems development
     - Business vision view
     - Business process view
     - Business structure view
     - Business behavior view
   - **Lab**: Business modeling jeopardy: Teams of students compete to demonstrate knowledge learned

2. **Business vision view**
   - Elements of a business vision
   - Strategy definition
     - TOWS matrix
     - Vision statement
   - Goal modeling

3. **Business process view**
   - Business use case modeling
   - Business use case diagram
   - **Lab**: Identify and diagram business processes on a business use case diagram
   - Modeling a business process with UML activity diagrams
   - **Lab**: Diagram a business process with an activity diagram
   - Modeling a business process with BPMN process diagrams
   - Business use case specification
   - **Lab**: Write a business use case

4. **Business structure view**
   - Business organization modeling
   - Business object modeling
     - Identifying business objects
     - Business object modeling with UML class diagrams
       - Classes
       - Attributes
       - Association relationships
       - Generalization relationships
   - **Lab**: Model business objects on a class diagram
5. Business behavior view
   • Using UML state models to model business object states
     ‒ States
     ‒ Transitions
     ‒ Events
     ‒ Activities
     ‒ Actions
     ‒ Guards
     ‒ Constraints
   • Lab: Modeling a business object’s states

6. Specifying business rules
   • Defining business rules
   • How business rules are used
   • Types of business rules
     ‒ Derivations
     ‒ Constraints
     ‒ Existence

7. Exploring business patterns
   • Define business patterns
   • Explore representative patterns
Why IconATG?

- Fifteen years of experience mentoring, consulting, and developing training programs for large IT organizations
- Full software lifecycle curriculum of cost-effective, tailored courses
- Seasoned instructors qualified through hands-on experience
- Experienced mentors and consultants with demonstrated project success
- Proven experience tailoring and extending the Unified Process and Agile/Scrum Processes

IconATG is a thought-leader in information technology training, mentoring and consulting. Our training staff has successfully developed cost-effective, customized IT training programs and we have taught thousands of students through our formal courseware and hands-on workshops. We offer introductory to advanced courses in focused disciplines of the full software lifecycle including the Unified Process (RUP), Agile, UML, requirements and use cases, usability, project management and architecture (SOA/MDA). Our instructors’ real-world expertise is incorporated in each of our classes, giving your team the practical skills to be more productive when developing today’s most demanding applications.

Our mentors and consultants have worked with project teams to apply new technologies and processes in their organizations to ensure project success. Full lifecycle experience allows IconATG consultants to deliver expert knowledge in specific disciplines while providing an understanding of the workflow throughout the lifecycle. Mentors and consultants actively work with the project team helping them develop skills and address problems through facilitation, demonstration, co-development, review, observation and advice. Mentoring solidifies knowledge gained through training by applying the concepts learned in class. Icon’s extensive project experience has shown that teams better understand new processes and techniques by applying them with a seasoned mentor. IconATG is that critical resource; we can help ensure your success.