

Business Analysis Using the Unified Modeling Language (UML)

Duration: 3 Days

Overview

Expressing business requirements that guide IT professionals to an acceptable solution is beginning to appear like the holy grail of information technology. The Unified Modeling Language (UML) is emerging as a new standard for structuring the communication between the world of IT and business. Because it is a new language in every sense of the word, parties from both worlds have to learn how to use it to communicate more effectively.

This 3-day interactive training session introduces business and system experts to a new diagramming paradigm. Class, object, use case, activity, sequence, and state diagrams are explained in non-technical language, demonstrated using a simple model, and used by the participants in an extensive case study. If a picture is worth a thousand words, good models could decrease the project effort by an order of magnitude.

Approach

This seminar is based on the most powerful adult learning method currently known: discovery learning (also known as experiential learning). As experienced adults, we believe what we experience more than what we hear or read. To make effective use of this concept in a training setting means less lecture and more trial-and-error exercises. It also means accepting that sometimes the wrong answer is the best learning experience.

Audience

The target audience includes project leaders, business analysts, systems analysts, managers and end-users who may not be information system experts but are interested in using information technology to create a competitive advantage and are willing to learn a new language to achieve that goal.

Customization

Each section listed in the outline can be presented as a stand-alone workshop. The duration of each section depends on the amount of time needed for the participants to absorb the material. The listed times represent the absolute minimum per section. Any section can be expanded with additional exercises and/or discussions with your in-house information system experts to increase the learning effect.

Presenters

Experiential learning requires leadership based on broad and in-depth experience in the topics being covered. Our instructors have extensive experience in applying many different techniques on projects with subject matter experts from a wide variety of fields.

Developed and presented by:

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Outline

OI Business Analysis Revisited

Duration ≈ 2 hour

The process of figuring out how the business community can take advantage of information technology is evolving. For years, developers, system analysts and business analysts have struggled to find better and faster ways to gather, evaluate, and comprehend business requirements. Use cases, object models and a new language called the UML (Unified Modeling Language) promise to improve the way we do business analysis.

1. What do business analysts analyze?
2. Who are the stakeholders in an information project?
3. What is requirements engineering?
4. Why do you need models?
5. What is different about analysis for new development and maintenance projects?

OU Modeling the Business Uses of Technology

Duration ≈ 5 hours

A use case depicts how end-users and other actors will interact with the delivered information technology solution. A Use Case Diagram shows the interaction at a high level. The Basic Course of Events of a use case defines the specific and detailed steps that are part of that interaction.

1. Who or what can be an actor?
2. Where do you find uses cases?
3. What is in a Basic Course of Events?
4. Where do happy, alternate, and exception paths lead?

OC Classifying and Analyzing Business Objects

Duration ≈ 5 hours

As a business analyst, you have to understand what role information plays in the end-users' universe. Information systems represent the real world. It can be challenging to recognize what impact changes in reality have on the technology. Creating an object or class model will help you recognize and track how the various kinds of relationships that exist in the business system are or will be represented in the information system.

1. When do you need to model what?
2. How is data represented in the Unified Modeling Language (UML)?
3. How do you create class and object models that normal mortals can use?
4. What role do these static models play in requirements engineering?

Outline *(continued)*

OR Modeling Business Requirements with the UML

Duration ≈ 3 hours

Business requirements are the subject matter expert's primary mechanism for communicating with information technology professionals. Written (textual) requirements are an essential component, but effective communication requires pictures. Activity, Sequence, and State Diagrams can flush out details that the text does not cover.

1. What do business requirements define?
2. Which UML models show business requirements?
3. How do you create Activity, State, and Sequence Diagrams?
4. When do you need Swimlanes?

OA Business Architecture Analysis

Duration ≈ 3 hours

Whether new development or maintenance, the start of a project is an exciting and frustrating phase. At this point, you probably don't even know what you don't know about the project, and you have to get a handle on things quickly. Business analysis is all about finding the right questions to ask, asking the right people, and recognizing valid answers. If you could draw a picture of all of this, you would be well on your way to finding the right solutions.

1. What's the problem?
2. How can you diagram a business system?
3. Where do you start?
4. What are objects and classes and why should you care?

OS Analysis and the UML

Duration ≈ 1 hour

Ultimately, the success of training lies not in the seminar itself but in the effect it has on your life. Given the time pressures of business life in the 21st century, you need to find new and creative ways of incorporating the presented techniques into your day-to-day work. To understand the importance of doing that, it might help to see the whole picture and review what was presented.

1. What are other standard diagrams of the UML?
2. Where do we go from here?

Appendix

- A. Case Study
- B. Business Analysis Skills Assessment
- C. Index
- D. Bibliography
- E. Other Hathaway & Associates Training Offers
- F. Name Tent and Evaluation

Objectives

After this section, participants will be able to:

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| OI Business Analysis Revisited | <ul style="list-style-type: none">➤ Define the evolving role of today's business analyst➤ Recognize 7 major dimensions of business systems➤ Differentiate between structured and object-oriented analysis |
| OU Modeling the Business Uses of Technology | <ul style="list-style-type: none">➤ Document user interaction in use cases➤ Apply Use Case Diagrams as a scoping tool➤ Create scenarios to flush out details |
| OC Classifying and Analyzing Business Objects | <ul style="list-style-type: none">➤ Create class and object diagrams of the business system➤ Represent how various business components are related➤ Capture implicit and explicit services that objects provide |
| OR Modeling Business Requirements with the UML | <ul style="list-style-type: none">➤ Analyze UML diagrams to identify business needs➤ Identify state transition rules➤ Document communication between business objects |
| OA Business Architecture Analysis | <ul style="list-style-type: none">➤ Identify critical project stakeholders➤ Model the business system components➤ Use business problems to determine the scope of a project |
| OS Analysis and the UML: A Summary | <ul style="list-style-type: none">➤ Discuss additional diagrams of the UML➤ Evaluate the topics presented and create a personal action list |