



Object-Oriented Analysis

3-Day Course and Workshop

Course Number: NT-240

This three-day course demonstrates how to perform object-oriented analysis within the context of a systems development project. The course is language independent and will be applicable for projects that are targeting any object-oriented or object-based languages.

The course will introduce object-oriented analysis concepts, terminology, deliverables and their dependencies, as well as illustrate the necessary techniques to produce these deliverables. DEA's Business Analysis curriculum closely follows the IIBA's Business Area Body of Knowledge (BABOK). As the BABOK is updated, our courses are also updated to follow and reflect the industry best practices. Our courses are developed and delivered by professionals with extensive hands-on experience in business analysis covering many different industries.

The course will rely on examples and a case study developed and refined over the last 15+ years to allow participants sufficient experience to learn how to apply the techniques that they have been taught.

Course Objectives:

After taking this course students will be able to:

- Understand how the business drives an OO project
- Use the IIBA Bodies of Knowledge and apply them to Object Oriented Analysis
- Understand object concepts, terminology, definitions and modeling techniques and how they fit together
- Build Object Oriented Analysis models and define their details
 - Perform object oriented analysis within the context of a systems development project.
 - Use techniques to produce object oriented deliverables

Who Should Attend?

- Entry-level Business Analysts who need to understand basic data modeling concepts and techniques
- Self-taught Business Analysts
- Experienced Business Analysts interested in expanding their skills to include data modeling



Object Oriented Analysis

3-Day Course and Workshop

Introduction to Object Oriented Analysis and DEA's Approach

- Today's Systems Development Environment
- Multiple Perspectives and Levels of Detail
- Traditional vs. Object Oriented Approaches
- Understand the Role and Tasks of the Business Analyst
- The IIBA Bodies of Knowledge Areas

Object Oriented Concepts

- Definition and Purpose of OO
- Analysis vs. Design
- OO Strategies
- OO Basics and Terminology
 - Object/Instance
 - Abstraction
 - Class
 - Generalization/Specialization
 - Inheritance
 - Attributes
 - Operations/Methods
 - Encapsulation
 - Polymorphism
 - Associations
- Worksession: Using the case study, identify instances of each OO notation

Understand the Inputs to Object Oriented Analysis

- Use Organization Charts to define roles and responsibilities
- Define the Scope of a Business Area & System with a Context Diagram
- Identify the business functions under analysis with a Functional Hierarchy
- Document all external events that the business process must respond to
- Identify what the system needs to do with a Use Case approach
- Identify the business data and business rules necessary to support the functional requirements in a Data Element Document
- Worksession: Build a Context Diagram and Use Case

Packaging / Grouping Use Cases

- What is a Use Case Package Diagram?



Courses

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- What Purpose does it serve?
- Worksession: Build a Use Case Package

Describe the Types of Objects with a Class Diagram

- Class Diagram Views and Notation
 - Class
 - Attribute
 - Operations
 - Relationships / Association
- Worksession: Identify Classes and add Attributes
- Enhancing the Analysis Class Diagram
 - Multiplicity, Gen-Spec Structure, Roles, Aggregation, Methods
- Worksession: Add Associations to the Class Diagram

CRC Cards – A Technique

- Developing CRC Cards to Identify:
 - Classes, Responsibilities, and Collaborations for the Class Diagram

Capture the Varieties of Interactions within a Model as it ‘Executes’ Over Time

- Sequence Diagram
 - What is it and when do you use it?
 - Building the Diagram, Start with Use Case
 - Use Case Text, Objects, Actors, Messages
 - Worksession: Build a Sequence Diagram
- Activity Diagram
 - What is it and why build one?
 - Building the Diagram
 - Events, Action States, Transitions, Alternate Paths (Decisions), Results
 - Worksession: Build an Activity Diagram
- State Diagram
 - What is it and where does it fit?
 - Building the Diagram
 - Initial Event, States, Transitions, Events, Variables, Actions, Parameters, Final State
 - Enhancing the Class Diagram
 - Worksession: Build a State Diagram

Transition from Analysis to Design

- Where Does Analysis End and Design Begin?
- Deliverables Roadmap

Wrap up / Summary