

# Information and Data Modelling for the Enterprise

Learn via: **Classroom / Virtual Classroom / Online**

Duration: **3 Day**

<https://bilginc.com/en/training/information-and-data-modelling-for-the-enterprise-563-training/>

## Overview

One of the more important strategic assets a modern enterprise needs to manage effectively is its data and information, yet in many businesses the management of this asset is left up to individual business functions, using their own Information Systems, with little overall governance. This is a legacy problem that needs to be fixed. To be successful in today's competitive and highly regulated environment it is essential to develop an enterprise-wide view of data and information, covering the definition of the concepts about which data and information is held, and the lifecycle of the related data entities as they are manipulated by business operations. It also increasingly important, and frequently essential, to be able to analyse business transactions over time, using Business Intelligence techniques, to inform decision makers about the progress of the business towards its strategic goals, and discover new insights into fresh opportunities. The function that oversees this corporate activity and provides advice to the business in terms of expertise, tools and best practices is known as *Information and Data Management*. Within this function there is a requirement to conduct a certain amount of modelling activity, which contributes to the solution of data-related problems.

This course situates Information and Data Modelling within the Data Management Function, and teaches and demonstrates the main techniques useful to the modeller in deriving the required Information and Data structures, in accordance with recognised best practices. The techniques discussed are valuable for both the OLTP (transactional) and OLAP (business intelligence) data environments. The course makes use of industry standard notations wherever applicable, focussing on the use of UML.

## Prerequisites

There are no prerequisites for this course.

## Target audience

Anyone who has an interest in understanding how data is managed within an organisation and how it flows through business processes.

## What You Will Learn

- Able to justify the need for modelling within the Information and Data Management functions
- Understanding of the fundamentals of data modelling
- Able to develop a Conceptual Data Model
- Able to develop a Logical Data Model
- Apply a range of techniques to validate data models against business requirements
- Understanding of the need for metadata and how this might be organised
- Apply the normalisation technique as a way of analysing and designing attributes, and as a way of validating data models
- Rationalise and integrate the bottom-up view of data with the top-down view of information
- Understanding of the need for a Corporate (Enterprise) Data Model and some of the options and issues involved
- Able to approach the design of schemas for BI applications based on OLAP databases
- Able to approach the design of schemas for physical databases
- Appreciation of the role of Big Data and NoSQL in a modern data environment
- Understanding of data as it relates to the XML messaging environment

## Outline

- Introduction to Information and Data Modelling for the Enterprise
- Basic Data Modelling concepts
- Developing a conceptual model of information
- Moving from the conceptual information model to the logical data model
- Metadata and documenting attributes
- Normalisation technique to 3NF
- Corporate Data Modelling
- Modelling for OLAP and BI/DW, including the Star Schema

- Final Topics, which include: normal forms beyond 3NF, Big Data, Messaging, Physical Modelling, alternative modelling notations, data and process.