Training Title	Data Modeling for Business Data Marts 18.6.2008
Target Group	• Warehouse architect, • Warehouse analyst, • Warehouse advisor, • Warehouse consultant. • Senior consultants and project managers involved in data warehousing projects • Analysts and advisors who want to learn the concepts associated with the architecture and planning of a data warehouse
Duration	1 day
Pre-requisites	none
Objectives	Data modeling for Business Data Marts focuses on definition of key concepts for designing the business specific data marts. During the training relevant terms and definitions will be explained as well as it will address differences in design for DW and DM. Course also focuses on justification of new business data marts implementation in current architecture of organizations.
Content	§ What is data modeling? o Definition and introduction to basic terms o Why is data model important? o What makes a good data model? § Completeness § Non-redundancy § Enforcement of business rules § Data reusability § Stability and flexibility § Expandability § … o Normalized vs denormalized data models § Definitions § Why do they exist? § When are they used? § 1, 2 and 3 normal forms § Database design stages o Conceptual, subject, logical and physical data models o Models used for data warehousing (star schema, snowflake, …) o Models for data warehousing vs models for transactional legacy systems § The differences § The purpose § Optimization § E-R modeling o Brief overview of terms and concept (objects – tables, attributes, keys, etc.) o Naming conventions o Standard data types

	§ Keys in data warehousing o Primary, Surrogate and foreign keys o Guidelines for choosing keys in data warehouses § Modeling business rules o Types of business rules o Discovery and verification of business rules o Documentation of business rules o Implementation of business rules § Time-dependent data o The problem o When do we add time dimension? - Dimensional models used in DW o Audit trails and snapshots o Sequences and versions o Handling deletions o Archiving o Modeling time-dependent relationships § Modeling for Data Warehouses and Data Marts o Characteristics of DW and DM § Data integration § Loading vs updating § History § Summarization o Quality criteria for DW and DM models o The basic design principles o Modeling for data warehouses o Modeling for data marts § Business data marts o Why are they created? o When is it necessary to create new data mart(s)? o What are the specifics of business data mart creation (comparing to DWH)? o Benefits vs costs of creating DM o Specific analytical data structures for statistical modeling (analytical base tables)