
Data Modeling and Relational Database Design

Duration 4 Days

What you will learn:

This course covers the use of Entity Relationship Modeling in detail, through many real life examples, practical business problems and solutions. After several iterations, the ER model captures the data requirements and business rules and forms a sound basis for the initial design of a relational database. The second part of the course is about the design process and presents the considerations for creating a normalized, stable, maintainable and well defined relational database, such as Oracle9i.

Audience:

Database Administrators
Business Analysts
Database Designers

Suggested Prerequisites:

Basic understanding of relational database concepts

Course Objectives:

Recognize and use patterns in models
Apply various techniques to optimize the design in an Oracle environment for performance and maintainability
Transfer ER models into an initial relational database design
Read, improve, create, use and judge Entity Relationship Models
Capture business rules and constraints

Course Topics:

Entity Relationship Modeling

Why create conceptual models?
Distinguishing Data and Information
Tracking Entities in various source materials
Modeling Subtypes and Supertypes
Creating appropriate Names for Entities, Attributes and Relationships
Representing a Model in Diagrams
Identifying Things in the Real World
Establishing Unique Identifiers (UID)

Relational Database Design

Why create a Database Design?
Creating well structured Names for Database Objects
Establishing the Basic Mapping of an ER Model to Table Model
Mapping Entities and Attributes
Various ways of Denormalizing your Table Design
Selecting the appropriate Oracle Data Type
Recognizing Design Fossils like Generic Arcs
Design for a Distributed Environment

Suggested Next Courses:

[Oracle9i Designer: First Class](#)

[Data Warehouse Database Design](#)