



Effective Relational Database Design

Duration: 2 Days

Course Description

This course explains how to design a relational database using database design models and principles. Participants will learn how to refine an initial database design through various concepts. The course also discusses ways to reduce data redundancy and utilize logical design methods to “tune up” designs.

Audience

Database analysts, data architects, developers, and anyone interested in the workings of relational design.

Prerequisites

Familiarity with the concepts and practices of logical data modeling as taught in the Logical Data Modeling course is required. A basic understanding of SQL is desirable but not necessary.

Course Outline

Introduction

The database design process
Logical data modeling vs. physical database design
Three data model levels
Roles and responsibilities

Relational Databases

Entity-relationship LDM concepts
E-R models
Primary and foreign keys
Concurrency control
Security
The database optimizer
Physical storage of tables

Logical Database Design

Normalization

Contrived columns or artificial keys
Redundant or derived tables
Data partitioning
Mapping supertype/subtype entities to tables

Transactions vs. Decisions

Data warehouse design considerations
Dimensional data
Physical data warehouse design

Physical Database Design

Indexes
Clustered vs. un-clustered indexes
Index storage structures: B-tree and hash
Database sizing



Sterlink Training Business Analysis Curriculum

1st through 5th normal form
Domains or data types
Detailed table design
When to denormalize?

Database-level options for security
design
Integrity

Best practices

For more information about this and other offerings

Please contact Sterlink Data Systems at (416) 859-6470 or email us at training@sterlink.ca

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