Logical Database Design for Sybase

Course Summary

Description

Learn the basics of designing a database from requirements gathering to implementation. Our instructors are hands-on Database Modelers. They will share their experiences while teaching the course material.

Topics

- Introduction To Databases
- Data Dictionary
- Introduction to Relational Database Design
- Denormalization
- Conceptual Design
- Distributed Database
- Logical Design
- Converting an OO design to a Relational Database
- Normalization
- Introduction to Informational Modeling
- Physical Design

Audience

This course is designed for analysts, programmers, and database administrators who are responsible for the design or a relational database.

Prerequisites

There are no prerequisites for this course.

Duration

Three days

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Course Outline

I. Introduction To Databases
- A. Databases in General
- B. Hierarchical Database
- C. Network Database
- D. Flat File Databases
- E. Relational Database
- F. Object Databases
- G. Object Relational Databases

II. Data Dictionary
- A. RDBMS Specific

III. Introduction to Relational Database Design
- A. Design
- B. Review of System Design
- C. Different Methodologies
- D. The Steps
- E. Design Bias
- F. RDB Design Methodologies
- G. 3-Levels
- H. CASE Tools

IV. Denormalization
- A. Performance Implications of a Physical Database

V. Conceptual Design
- A. Inputs
- B. Outputs
- C. When it is Done
- D. Steps in Performing

VI. Distributed Database
- A. Design for a Multi-site Database

VII. Logical Design
- A. Inputs
- B. Outputs
- C. When it is Done
- D. Entities
- E. Attributes
- F. Relations
- G. Keys
- H. Reviewing the Design

VIII. Converting an OO design to a Relational Database
- A. How it differs from a Standard Database Design

IX. Normalization
- A. Mathematical Meaning
- B. Plain English Description
- C. 6 Standard Forms
- D. 1NF, 2NF, 3NF, Boyce-Code, 4NF, 5NF

X. Introduction to Informational Modeling
- A. Understand Flow of Information at Your Site

XI. Physical Design
- A. Inputs
- B. Outputs
- C. Tables
- D. When it is Done
- E. Columns
- F. Nulls
- G. Constraints
- H. Indexes
- I. Object Placement

XII. Appendix
- A. Symbols for Different Methodologies
- B. Step by Step Design a Database
- C. Database Design Templates
- D. Glossary

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