

Designing, Developing, & Optimizing IBM Informix Databases (with Advanced SQL, Triggers & Stored Procedures)

Course Summary

Description

This course is for database administrators and application developers who will be responsible for designing and developing Informix databases. The participants will learn how to create and optimize Informix databases. The course includes sections on advanced SQL topics and how to use triggers and stored procedures.

Topics

- Database Schema Design
- Optimization
- Advanced Informix SQL
- Embedded Informix SQL
- Stored Procedures
- Triggers

Prerequisite

Requires a basic understanding of Informix, UNIX and vi commands, SQL databases, and prior experience with Informix SQL.

Duration

Five Days

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Course Outline

I. *Database Schema Design*

- A. Informix OnLine data types
- B. Calculating table & database sizes
- C. Using the Informix system tables
- D. Using data, referential, & entity integrity
- E. Using referential constraints
- F. Managing isolation levels & locking levels
- G. Constraint transaction modes

II. *Optimization*

- A. Using update statistics & distribution schemas
- B. Table fragmentation across multiple disk drives
- C. Optimizing disk & database space layout
- D. Optimizing performance with indexes
- E. Optimizing client/server transactions
- F. Using Parallel Database Query (PDQ)
- G. Reading the query plan
- H. Using Set Explain to optimize queries

III. *Advanced Informix SQL*

- A. The SQL select statement
- B. Filters & conditional expressions
- C. Relationships (joins, outer joins, and unions)
- D. Aggregates & other advanced features & functions
- E. Data Manipulation, concurrency, & definition commands

IV. *Embedded Informix SQL*

- A. Using SQL statements in programs
- B. Using the SQLCA structure
- C. Retrieving multiple rows with cursors
- D. Developing programs with dynamic SQL
- E. Executing SQL statements
- F. Using record locking & concurrency

V. *Stored Procedures*

- A. Creating stored procedures
 - 1. Variables
 - 2. Flow control
 - 3. Error handling
- B. Running stored procedures
- C. Debugging stored procedures
- D. Privileges and stored procedures

VI. *Triggers*

- A. Creating triggers
- B. Specifying trigger events
- C. Creating trigger actions
- D. Using stored procedures in triggers