

Structured Query Language Introduction

CDT610

This course provides a hands-on overview of the Structured Query Language, which provides programmers and end-users alike the means to access relational databases.

Audience

- New or intermediate SQL users

Prerequisites

- Familiarity with relational database concepts

Course Length

- Two Days

Learning Objectives

- Create DB2 tables with SPUFI and/or QMF
- Perform queries requiring a single table
- Perform queries requiring multiple tables
- Perform queries using simple functions and arithmetic
- Perform queries using date fields, including date arithmetic
- Create and query views
- Update tables

Teaching Methods

- Lecture and examples
- Hands-on exercises throughout
- Comprehensive review exercise

Course Outline

QD3

Creating DB2 tables

- SPUFI vs. QMF
- CREATE TABLE
- DROP, COMMIT
- INSERT ... VALUES
- Data types
- Nulls
- You try it

Simple Queries of a Single Table

- SELECT *
- SELECT column
- FROM
- WHERE
- LIKE
- AND, OR
- NOT
- BETWEEN
- IN
- DISTINCT
- You Try It

Simple Functions and Arithmetic

- COUNT
- SUM
- AVG
- MAX
- MIN
- Display calculate fields
- You try it

Simple Queries of Multiple Tables

- Artesian product
- Joins
- You try it

Ordering rows

- ORDER BY
- ASC, DESC
- You try it

Views

- CREATE VIEW
- Querying views
- You try it

Grouping

- GROUP BY
- HAVING
- AS
- You try it

Date Functions

- DATE data type
- INSERT with DATE fields
- YEAR, MONTH, and DAY functions
- Date arithmetic (DAYS function)
- CURRENT DATE
- You try it

Updating Tables

- UPDATE TABLE
- SET
- DELETE FROM table
- DROP TABLE table
- You try it

Comprehensive Review Exercise