

**Duration:** 2 days

**Course Number:** ISI-DB2-11

## **Description**

This hands-on programming workshop provides instruction and practice with DB2 UDB Commands and SQL statements will be used to create objects for application design and development. Design issues of referential Integrity, table check constraints, user-defined data types and functions, triggers and large objects will be discussed. Some performance improving techniques will be reviewed. Techniques for using embedded static SQL will be used to code C programs. Program design issues will be considered which effect concurrency and integrity.

Upon successful completion of this class, students will be able to:

- Explain the basic concepts and facilities of DB2.
- Use CLP commands and SQL to create relational objects for application development.
- Use embedded STATIC SQL in C programs to access local or remote data, using single and multiple row (cursor) techniques.
- Prepare and execute programs.
- Explain DB2 locking strategy for improving concurrency and maintaining data integrity.
- Design an Application program to manipulate data for a Distributed Unit of Work (DUW).
- Discuss the concepts of Stored Procedures.

A series of written and lab exercises will be used to reinforce the classroom education.

## **Audience**

Application developers and designers.

## **Prerequisites**

- Six months of relevant Operating Systems experience (Windows or AIX).
- Six months of programming experience in C.
- Previous experience with relational database systems and SQL is helpful, but not required.

## Course Agenda

### Day 1

- Course Introduction
- The DB2 Family
- Getting started
  - Workshop: CLP
- Creating Objects - Part 1
  - Workshop: Creating Objects
- Static SQL in Programs
- Error Handling
  - Workshop: C programming

### Day 2

- Program Preparation
- DB2 Locking
- DB2 Stored Procedures
- SQL Performance
- Data Access and EXPLAIN
  - Workshop: EXPLAIN