

DB2 Stored Procedures (2 Day)

Benefits

The student will learn how to develop stored procedures in DB2, as well as how to invoke stored procedures from a host-based application.

Audience

Application developers who need to create or invoke DB2 stored procedures written in COBOL, Assembler, PL/I, C/C++, or REXX.

Prerequisites

The student should have experience with basic SQL, as well as experience in doing DB2 application development.

Major Topics Include:

- DB2 stored procedure architecture
- Stored Procedure Address Spaces
- Defining stored procedures
- CREATE PROCEDURE, ALTER PROCEDURE, DROP PROCEDURE
- Stored procedure catalog tables
- Writing stored procedures
- Parameter styles: GENERAL, GENERAL WITH NULLS, and DB2SQL
- Invoking stored procedures
- Preparing stored procedures and their invokers for execution
- DB2 Commands for stored procedures
- Returning result sets
- Accessing result sets
- Dynamic SQL in stored procedures
- ODBC and stored procedures
- SQL procedures language
- Stored procedure builder overview
- REXX and stored procedures

Course Outline

Stored Procedure Overview

Stored Procedure Address Spaces

Defining Stored Procedures

CREATE PROCEDURE

ALTER PROCEDURE

DROP PROCEDURE

Language Environment Run-time Parameters

Stored Procedure Catalog Tables

Computer Exercise: Defining Stored Procedures

Writing Stored Procedures

Parameters

Null Values

Program Types: MAIN and SUB

COMMIT and ROLLBACK

Non-DB2 Resources

Invoking Stored Procedures

Null Values

Calling Literals vs. Calling Variables

Preparing Stored Procedures and their Invokers

Activating Stored Procedures

Computer Exercise: Writing, Preparing, and Executing Stored Procedures

Returning Result Sets

Result Sets from the Caller's Perspective

Testing Stored Procedures

Computer Exercise: Stored Procedures with Result Sets

Dynamic SQL in Stored Procedures

PREPARE / OPEN

SQLDA

Dynamic SQL in Callers of Stored Procedures

Quasi-dynamic EXEC SQL CALL

Dynamic ASSOCIATE LOCATORS

Dynamic ALLOCATE CURSOR

DESCRIBE PROCEDURE

DESCRIBE CURSOR

Retrieving Rows with an SQLDA

Computer Exercise: Using Dynamic SQL in Stored Procedures

ODBC and Stored Procedures

Defining ODBC Stored Procedures

Coding Stored Procedures that use ODBC

Invoking Stored Procedures from ODBC clients

Miscellaneous ODBC Functions

Preparing ODBC Stored Procedures and Invokers

Computer Exercise: Using ODBC in Stored Procedures

Stored Procedures in REXX

Calling Stored Procedures

Writing Stored Procedures

Handling Null Values

Working with Result Sets

Computer Exercise: REXX Stored Procedures