DB1020 – Stored Procedure Options on DB2 for z/OS

Course Synopsis

Duration:	Three (3) days
Audience:	Database Administrators and Application Developers who will be setting up the Stored Procedures environment on the DB2 for z/OS platform as well as calling and/or coding stored procedures in the DB2 z/OS environment.
Prerequisites:	DB1010 DB2 for z/OS SQL & Application Programming. Working knowledge of Cobol and SQL.
Delivery Method:	Instructor led, Hands-on workshops

Brief Description

This 3-day course presents coding and administration requirements for implementing DB2 Stored Procedures on DB2 for z/OS. Both external (COBOL) and native SQL Procedure Language Stored Procedures are covered.

Course Objectives What You'll Learn

Upon successful completion of this course, the student will be able to:

- Understand the Stored Procedures Environment and setup requirements to implement stored procedures
- Be able to code and test DB2 for z/OS Stored Procedures using COBOL
- Code and test a Stored Procedure Calling Program
- Be able to use IBM Data Studio to code an SQL PL Stored Procedure
- Understand the two types of Global Temporary Tables and their use with Stored Procedures
- Understand the major Performance Considerations for DB2 z/OS Stored Procedures

Topics Covered

I. Introduction to Stored Procedures

- Distributed Processing
- Stored Procedures Solutions
- Architecture
- Installation Considerations
- WLM-Established Stored Procedures Address Spaces
- Enabling Stored Procedures After Installation
- Stored Procedures Run-time Environment
- Administrator Tasks
- Using Commands

II. External COBOL Stored Procedures

- Parameter Passing Stored Procedures
  - An Example of a Simple Stored Procedure
  - Writing and Preparing COBOL Stored Procedures
  - Invoking Stored Procedures
  - Defining Your Procedure to DB2
  - Calling Simple COBOL Stored Procedures
- Result Set Passing Stored Procedures
  - Improved Functionality with Result Sets
  - Requirements for Returning Result Sets
  - How to Write Applications That Receive Result Sets

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Topics Covered Continued

III. Native SQL Procedure Language (SQL PL) Stored Procedures

- Introduction to Data Studio
  - Managing Database Connections
  - Coding Stored Procedures
  - Deploying Stored Procedures
- SQL PL
  - CREATE PROCEDURE Statement
  - Bind Options
  - Declaring SQL Variables
  - Procedural Statements in SQL
  - Creating Result Sets
  - Calling Another Stored Procedure
  - Retrieving a Result Set
- Debugging with the Unified Debugger

IV. Global Temporary Tables

- Created Temporary Tables
- Declared Temporary Tables
- Using Temporary Tables to Hold Result Sets

V. Stored Procedure Performance

- Workload Manager Address Space Considerations
- Block / Multi Row Fetch with Stored Procedures
- Distributed Data Facility & Network Issues
- Efficient SQL

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