

Duration: 2 days

Course Number: ISI-DB2-04

Description

This course presents the use of stored procedures as a solution to specific needs in DB2 applications. DB2 SQL is used as the tool to build and test stored procedure. The course covers the use of CREATE PROCEDURE DDL statement for coding stored procedures using DB2 SQL Procedure Language (SQL/PL). Several hands-on exercises demonstrate the use of INPUT and/or OUTPUT parameters and internal stored procedure logic. Several DB2 stored procedure examples are reviewed as an insight into examples of the capabilities of stored procedures. The use of the CALL statement is presented as the means to invoke stored procedures. Various methods for debugging a stored procedure are also presented.

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

- Describe what a stored procedure is and how it works.
- Describe various DB2 SQL/PL statements and how to use them in an application.
- Describe the basic structure of a SQL application using stored procedures.
- Create DB2 stored procedures using SQL DDL statement.
- Debug stored procedures.

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

Audience

Database application designers and application programmers who need to build, test, and modify DB2 Stored Procedures.

Prerequisites

- Six months experience with the z/OS environment.
- Six months experience with DB2 SQL.

Course Agenda

Day 1

Stored Procedure Overview

- What is a Stored Procedure?
 - When to Use a Stored Procedure
 - How Applications Utilize Stored Procedures
- Application Flow
 - DB2 Client/Server: The Big Picture
- SQL Statements in Stored Procedures
 - Server Procedure - Limitations

DB2 SQL Procedure Language (SQL/PL)

- SQL Procedure Language
 - Stored Procedure EXAMPLES
- SQL Procedure Language Characteristics
 - Structure - Some Details
 - Compound Statements
 - Compound Statements - Rules
 - Declarations
 - Local Variables
 - Control Flow Statements
 - IF, LOOP, CASE, REPEAT, WHILE, FOR, ITERATE, LEAVE
 - Error Handling and Condition Handlers
 - Cursors - Retrieving Multiple Rows in Main Procedure
 - Processing Result Sets – ASSOCIATE, ALLOCATE, FETCH, CLOSE
 - Nested SP - Return to Caller (only) Example
 - Nested SP - Return to Client (only) Example
 - DECLARE GLOBAL TEMPORARY TABLE (GTT)
 - Merge
- Hands-on Exercises

IBM DB2 Stored Procedure Builder – SQL

- Walk-Thru
- Hands-on Exercises

Course Agenda

Day 2

CALLing a DB2 Stored Procedure

- CALL from Stored Procedure
- Hands-on Exercises

The CREATE PROCEDURE DDL Statement

- Syntax
- Examples
- Hands-on Exercises

DB2 Stored Procedure Debugging

- Walk-Through a Debugging Scenario
- Hands-on Exercises