

Duration: 2 days

Course Number: ISI-DB2-08

Description

This course introduces students to the new features and enhancements of DB2 UDB for z/OS Version 8. Upon successful completion of this course, students will be able to:

- Describe the DB2 support for 64-bit storage.
- Discuss the support provided for an increased number of partitions and new partitioned tables function.
- Describe the new features allowing more complex join statements.
- Describe the use of Common Table Expression.
- Describe the use of Dynamic Scrollable Cursors.
- Explain multi-row FETCH and INSERT.
- Describe the GET DIAGNOSTICS statement.
- Describe the use of recursive SQL.
- Describe Sequence Objects and their usage.
- Discuss the usage of a Scalar Full Select.
- Describe the usage of a SELECT Statement in an INSERT statement.
- Describe Unicode in DB2 for z/OS.
- Describe Utility enhancements and describe the new features of LOAD and UNLOAD.
- Describe support Data Partitioned Secondary Index (DPSI).
- Describe Performance Enhancements - including New Stage 1 Predicates and MQT's.
- Describe the new index support functions.
- Relate the implications of Volatile Tables.
- Describe the new functions for Visual Explain.
- Describe the process of installing, migrating and fall back DB2 UDB for z/OS Version 8.
- Describe the changes to the DB2 catalog.

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

Audience

Programmers, Analysts, Team Leads, Managers, Database Administrators requiring an appreciation and understanding of system details of the new application features of DB2 for z/OS Version 8.

Prerequisites

- Six Month of experience using DB2 UDB for z/OS Version 7 is recommended.
- Read/reviewed the IBM publication **What's New DB2 UDB for z/OS Version 8** and/or **DB2 Version 8 – Announcement Letter Overview**.

Course Agenda

Day 1

- Why 64-bit Addressing (128 Petabytes)?
- V8 – CM, ENFM, NFM - modes
- SQL Changes
 - 225 Tables in a Join
 - Common Table Expression / WITH
 - Scalar Full Select
 - Distinct, Distinct, Distinct
 - Final Table / Input Sequence
 - Select To Verify Insert
 - Identity / Sequence
 - Dynamic SQL – CLOB
 - Materialized Query Tables
 - Triggers
- Partition Table Changes
 - CL(ustering) vs. P(artition)ED vs. P(artition)ING
 - SI - DPSI – NPI
 - INDEX-controlled partitioning vs. TABLE-controlled partitioning
 - ADD partition, ROTATE partition, Alter Partition BOUNDARY, REBALANCE partition
- Application Programming Changes
 - Dynamic Scrollable Cursors
 - Fetch into ARRAY / Insert from ARRAY
 - GET DIAGNOSTIC
- UNICODE – Code Pages – Code Points
- DB2 Catalog Changes

Course Agenda (continued)

Day 2

- Additional Technical Topics - System
 - New Functions
 - Multiple Level Security (MLS)
 - Stored Procedures
 - Networking
 - New DB2 Limits
 - True Variable Length Column Index
 - Performance (V7 vs. V8) – mismatch data types & string length, transitive closure, join column sequence
 - Cost Based Parallel Sort
 - Volatile Tables
 - Star Join
 - Dynamic Temporary Tables ON COMMIT DROP
 - Miscellaneous Features
- Additional Technical Topics - Performance
 - Backward Index Scan
 - Other Perform Items – REOPT(ONCE) vs. REOPT(ALWAYS)
 - IN List predicate pushdown
 - Plan_Table Changes – V6, V7, V8
 - Visual Explain
 - UDF Table Function – CARDINALITY
- Additional Technical Topics - Utilities
 - LOAD / UNLOAD delimited
 - RUNSTATS – Distributes Stats on non-index cols
 - REORG / REBUILD – Scope Pending
- Hands-on Workshop - Using DB2 UDB for Windows to practice using the latest Application Features of DB2 UDB for z/OS v8