DB2 V10 Transition

Course Summary

Description

This course is aimed at Systems Programmers, Programmers and DBA's who need to understand the new features and facilities of DB2 Version 10. This lecture based course covers all of the new features in detail.

Topics

- System Enhancement
- Scalability Enhancements
- Availability Enhancements
- Sql Enhancements
- Programming Enhancements
- Xml Enhancements
- Performance Enhancements
- Utility Enhancements
- Security Enhancements
- Data Sharing Enhancements

Audience

This course is aimed at Systems Programmers, Programmers and DBA's who need to understand the new features and facilities of DB2 Version 10. This lecture based course covers all of the new features in detail.

Prerequisites

A strong working knowledge of DB2 Version 9 is required to attend this course.

Duration

Two days

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... to Your Success!"

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Course Outline

I. SYSTEM ENHANCEMENT
- A. System z Suppor
- B. IBM System z and z/OS Support
- C. IBM zEnterprise System Support
- D. z/OS Security Server Support
- E. TCP/IP Support
- F. WLM Enhancements
- G. Using RMF for zIIP Reporting and Monitoring
- H. Warehousing on System z
- I. Data encryption
- J. IBM WebSphere DataPower
- K. Additional zIIP and zAAP Eligibility

II. SCALABILITY ENHANCEMENTS
- A. Virtual Storage Relief
- B. Latch Contention Enhancement
- C. Catalog Contention Enhancement
- D. Increased Number of Packages
- E. The WORKFILE database enhancements
- F. Elimination of UTSERIAL for DB2 Utilities
- G. Support for Extended Address Volumes
- H. Shutdown and Restart Times, and DSMAX
- I. Compression of SMF Records

III. AVAILABILITY ENHANCEMENTS
- A. Version 9 Recap - Universal Tablespaces
- B. Version 9 Recap - Partition-By-Growth Tablespace
- C. Creating A Partition-By-Growth Tablespace
- D. Version 9 Recap - Partition-By-Range Tablespace
- E. Universal Tablespace Enhancements
- F. Alter Tablespace Enhancements
- G. Alter Tablespace Enhancements - Considerations
- H. Pending Changes Pending Changes – Areor State
- I. Pending Changes – Reorg Materialisation
- J. Pending Changes – Reorg Partition Resizing
- K. Alter Tablespace Examples
- L. Alter Tablespace - Member Cluster
- M. Online Schema Changes – Recovery
- N. Default Tablespace
- O. Autonomic Checkpoint
- P. Active Log Data Set Enhancement
- Q. Backout Enhancement
- R. Partition Rotation Enhancement
- S. Compress on Insert
- T. Additional Control for Long Running Readers
- U. Online REORG Enhancements
- V. Check Utility - Increased Availability

IV. SQL ENHANCEMENTS
- A. Recap – SQL/PL Scalar Functions
- B. SQL/PL Scalar Function Enhancements
- C. Inline and Non-Inline
- D. SQL/PL Scalar Functions SQL/PL Scalar Functions – New Control Statements
- E. Non Inline Functions – Binding Considerations
- F. Non Inline Function Examples
- G. Altering Non Inline SQL Functions
- H. Native SQL Functions – Versioning
- I. Enhanced SQL Table Function Support
- J. Enhanced Native SQL Procedure Support
- K. Greater Support for Implicit Casting
- L. Datetime Constants
- M. Variable Timestamp Precision
- N. Variable Timestamp Precision – Current Timestamp
- O. Variable Timestamp Precision – Row Change Timestamps
- P. Variable Timestamp Precision – Catalog Changes
- Q. New 'Timestamp with Time Zone' Data Type
- R. Timestamp with Time Zone – String Representation
- S. Implicit Time Zone
- T. Timestamp with Time Zone – Assignment and Comparison
- U. Current Timestamp with Time Zone – Special Register
- V. Session Time Zone – Special Register
- W. Time Zone Expressions and Arithmetic
- X. New Timestamp Functions
- Y. Application Programming Considerations

V. PROGRAMMING ENHANCEMENTS
- A. Temporal Tables
- B. Temporal Tables and Versioning
- C. Temporal Tables – Versioning Example
- D. System Temporal Tables – Data Access
- E. Temporal Tables – Considerations
- F. Temporal Tables – Application Controlled
- G. Business Temporal Tables – Data Selection
- H. Business Temporal Tables – Update and Delete
- I. Business Temporal Tables – Update Example
- J. Business Temporal Tables – Delete Example
- K. Temporal Tables – Catalog Information
- L. A New Access Path Framework
- M. Access Path Framework – New Repository

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Course Outline (cont'd)

N. Access Path Framework – New Catalog
O. Tables Subsystem Level Access Path Hints
P. The DSN_USERQUERY_TABLE Table
Q. Inserting Rows Into DSN_USERQUERY_TABLE
R. Access Path Framework – The Bind Query Command
S. Access Path Framework – The Free Query Command
T. Access Path Framework – Access Plan Stability
U. Version 9 Recap - Package Management
V. Version 9 Recap - Package Switching
W. Deleting Old Packages
X. Access Plan Stability – V10 Enhancements
Y. Extended Indicator Variables
Z. Extended Indicator Variables - Example
AA. New Universal Language Interface Program (Dsnuli)
BB. Locking Recap – V9 - Skip Locked Data
CC. V10 Locking Enhancement - Access To Committed Data
DD. Explain – New Special Register
EE. Lastused Information for Packages
FF. Connectivity Enhancements
GG. DDF Availability
HH. Monitoring and Controlling Enhancements
II. JDBC Type 2 Driver Performance Enhancements
JJ. High Performance DBAT
KK. Use of RELEASE(DEALLOCATE) in Java Applications
LL. Support for 64-bit ODBC Driver
MM. DRDA Unicode Enhancements
NN. DB2 Supplied Stored Procedures

VI. XML ENHANCEMENTS
A. Recap - XML in Version9
B. Recap - XML Data Type
C. Recap - Summary Of XML Objects Created
D. Recap - XML Document Processing in Version 9
E. XML Document Processing Enhancements
F. Using XmlModify to Insert Nodes Using XmlModify to Update / Delete Nodes
G. XML Indexing Enhancement
H. XML Schema Validation Enhancement
I. XML Type Modifier Support for Binary
J. XML Support for Multiple Versions of XML Documents

VII. PERFORMANCE ENHANCEMENTS
A. Improved Optimization Techniques
B. Dynamic Prefetch Enhancements
C. DDF Enhancements
D. Dynamic Statement Cache Enhancements
E. Insert Performance Improvement
F. Referential Integrity Checking Enhancement
G. BufferPool Enhancements
H. Work File Enhancements
I. Support For z/OS Enqueue Management
J. LOB Enhancements
K. Java & ODBC Performance Enhancements
L. Logging Enhancements
M. Hash Access
N. Non-Key Columns in a Unique Index
O. Support for Solid State Drive
P. The SQL PL Enhancements
Q. Preemptable Backout
R. Mass Delete Locking Enhancement
S. Parallelism Enhancements
T. Online Performance Enhancements
U. Monitoring Enhancements

VIII. UTILITY ENHANCEMENTS
A. Support FlashCopy Enhancements
B. Autonomic Statistics
C. Recover with BACKOUT YES
D. Online Reorg Enhancements

IX. SECURITY ENHANCEMENTS
A. Policy Based Audit Capability
B. System Authorities and Privilege Enhancements
C. System Defined Routines
D. The REVOKE Dependent Privilege Clause
E. Row and Column Access
F. Support for z/OS Security Features

X. DATA SHARING ENHANCEMENTS
A. Subgroup Attach Name
B. Bufferpool Scan Avoidance
C. Universal Table Space Support for Member Cluster
D. Restart Light Enhancement
E. Auto Rebuild Coupling Facility Enhancement
F. LRSN Enhancement
G. Cross Invalidation Enhancement

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