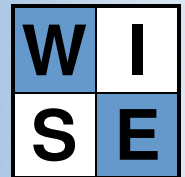


- COURSE CODE:** DZODWU
- COURSE TITLE:** DB2 for z/OS vs. DB2 UDB for LUW (distributed)
- CURRENCY:** V8.x.x and V9.x.x
- LEVEL:** Intermediate to advanced
- AUDIENCE:** DB2 DBAs, administrators and capacity planners.
- PREREQUISITES:** At least six (6) months experience as a DB2 UDB for LUW or DB2 for z/OS DBA.
- DURATION:** 2 days
- SUMMARY:** Organised mainly for the DB2 DBA, this presentation focuses on the differences, similarities and sameness with regards DB2 LUW and DB2 z/OS; with this in mind, we focus on the following:
- Architecture
 - Schema objects
 - DB2 limits
 - DB2 object creation and maintenance
 - DB2 address spaces
 - DB2 storage model
 - DB2 tools
 - Locking and concurrency
 - I/O concepts
 - DB2 optimizer
 - Backup and recovery utilities
 - Performance/monitoring tools
 - Security and authorisation
 - Performance and tuning issues
- OBJECTIVES:** Upon completion of this presentation, the delegate should be able to think clearly with regards DB2 UDB for LUW and DB2 for z/OS functional differences and likeness.



1. DB2 EDITIONS & PARLANCE

- Distributed
- Mainframe
- UDB
- LUW
- Multiplatform
- z/OS

2. ARCHITECTURE COMPARISON

- Operating system dependencies and options
- Installation parameters
- Address spaces
- DB2 instances
- 31/64 bit addressability support
- Storage model
- Process models
- TCBs, SRBs, threads, processes, etc.
- Parallelism

3. SCHEMA OBJECT COMPARISON – AN OVERVIEW

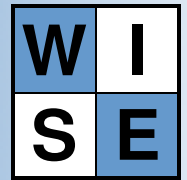
- Databases
- Tablespaces
- Tables (regular, temporary, MDC, MQT, etc.)
- Indexes
- Partitions

4. LIMITS COMPARISON

- Identifier (object) names
- Data types
- Database manager
- Database
- Page sizes and rows per page
- SQL statement size
- System objects (e.g., logs, tablespaces)

5. DB2 OBJECT CREATION & MAINTENANCE COMAPRISONS

- DB2 instance creation
- Create/alter storage group
- Create/alter database
- Create/alter tablespace
- Create/alter tables
- Create/alter index
- Create/alter partitioning
- Plan/package creation



6. STORAGE MODEL COMPARISON

- Control block structures
- Agents
- Buffer pools
- Sort pools
- Prefetchers
- Plan/package management
- Log buffers
- Cache (SQL, catalog, utility, etc.)
- Locklist

7. ADMINISTRATIVE & USER INTERFACE TOOLS COMPARISON

- Control Center
- SPUFI vs. CLP
- Task Center
- IBM Data Studio

8. LOCKING & CONCURRENCY COMPARISON

- Isolation levels
- Lock types
- Lock modes
- Lock conversion
- Lock escalation
- Deadlocks
- Lock controls
- Lock installation and parameter options

9. I/O TUNING CONCEPTS

- Buffer pools
- Prefetching
- Sort operations
- Parallelism
- Data compression options

10. OPTIMIZER COMPARISON

- Access plans
- Hints and classes
- Automated and other statistics
- Joins
- Query rewrite
- Stage 1/Stage 2 vs. sargable/non-sargable predicates

11. BACKUP & RECOVERY UTILITIES COMPARISON

- Database vs. tablespace backup
- Recovery types (e.g., crash vs. disaster)
- Recovery log types
- History files
- Database vs. tablespace restore
- High Availability Disaster Recovery (HADR)
- Restart types

12. DATA MOVEMENT UTILITIES COMPARISON

- File formats
- Export
- Import
- Load

13. DATA MAINTENANCE UTILITIES COMPARISON

- Runstats
- Reorg
- Realtime statistics

14. PERFORMANCE & MONITORING TOOL COMPARISON

- Snapshot monitoring
- Event monitoring
- DB2 Performance Expert multi-platform
- DB2 trace data (e.g., accounting and statistics)

15. SECURITY & AUTHORISATION COMPARISON

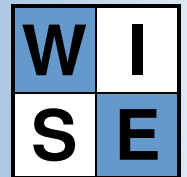
- Controlling data access to DB2 objects
- Controlling access to DB2 system
- Auditing
- Multilevel security

16. EXPLAIN FACILITY COMPARISON

- PLAN_TABLE
- PLAN_TABLE layout and interpretation
- FUNCTION_TABLE
- STATEMENT_TABLE
- Visual Explain

17. LARGE OBJECT SUPPORT COMPARISON

- CLOB
- BLOB
- UDF
- UDT



18. DATA WAREHOUSING (DW) COMPARISON

- DW Builder
- Joins
- Common Table Expressions
- Partitioning
- Materialized Query Tables (MQTs)
- Multidimensional Clustering (MDC)

19. SOME SQL COMPARISONS

- SQL procedures
- Stored procedures
- Common Table Expressions
- Identity columns
- Sequence objects
- Dynamic scrollable cursors
- Multi-row fetch
- Multi-row insert
- Scalar fullselect
- Multiple DISTINCT clauses
- GROUP BY expressions
- Triggers
- Data integrity and constraints

20. PERFORMANCE & TUNING ISSUES

- Address space dispatching
- Buffer pools and thresholds
- Locklist vs. IRLM
- Sort pools
- RID pools
- EDM pool
- Asynchronous vs. synchronous I/O
- Recovery logs
- Tablespace design
- Efficient SQL