COURSE TABLE OF CONTENTS

Watson Query for TIBCO Data Virtualization Replacement: Migration Use Cases

OEM: IBM • Duration: 2.5 Days (20 hrs) • Code: V010023G

COURSE MODULES & TOPICS

Objectives

- Learn to replace TIBCO web services with Db2Rest endpoints, build and optimize Db2 stored procedures, and virtualize heterogeneous data sources.
- Gain hands-on skills in performance tuning, security configuration, and migration strategy for Watson Query.

Day 1: Introduction to Watson Query and CP4D

Watson Query Foundations

- Introduction to IBM Cloud Pak for Data (CP4D)
- Overview of Watson Query (WQ)
- Architecture comparison: TIBCO DV vs. Watson Query
- Connecting data sources (SAP HANA, Oracle, MSSQL)

Project and Workspace Setup

- Creating and managing Virtualization Projects
- Understanding Virtual Tables
- Publishing Virtual Assets

Replacing TIBCO Web Services with Db2Rest

- What is Db2Rest?
- Building a simple REST API using Db2 stored procedures
- Use case: Replacing a TIBCO webservice built on HANA procedure

Day 2: Development with Db2 Stored Procedures and SQL Optimization

Db2 Stored Procedure Development

- Syntax comparison: Oracle/SQL Server/SAP vs. Db2
- Writing SQL PL stored procedures
- Array processing in Db2 (Answer to: "Does Db2Rest support Array input?")
- Handling input/output parameters, cursors, and exceptions

Advanced Stored Procedure Topics

- Writing external procedures in Java or C for performance
- Use case: Migrating complex business logic from TIBCO to Java/C-based SPs

Performance Analysis and Tuning

- Using Watson Query's Query Explain
- Understanding query execution plans
- Lab: Identifying and optimizing a slow virtualized query

Day 3: Virtualization Techniques and Integration Patterns

Virtualizing Heterogeneous Sources

- Virtualizing SAP HANA stored procedures
- Handling joins across HANA, MSSQL, and Oracle
- Use case: Federated query across SAP HANA and Oracle replacing TIBCO lookup service

Db2Rest Endpoint Deployment

- Exposing procedures as REST services
- Managing and testing endpoints
- Best practices for performance and caching

Transformations and Workflows

- Creating views with transformations (CASE, COALESCE, etc.)
- Use case: Transforming TIBCO logic embedded in SQL into Watson Query views

Day 4: Administration, Security & Monitoring

Security in Watson Query

- Authentication and authorization
- Row and column-level security
- Role-based access vs. TIBCO equivalent setup

Performance and Monitoring Tools

- Monitoring virtual query workloads
- Using Remote Connectors for workload distribution
- Use case: Offloading Oracle-heavy queries to remote connector for performance gain

Tuning and Scaling Watson Query

- Resource tuning: Memory, caching, and parallelism
- Audit logs and performance dashboard

Migration Strategy and Tips

- Best practices for migrating from TIBCO DV
- Troubleshooting common issues during transition

- Wrap-up Q&A with scenario-based exercises