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DB2 for LUW (v10.5) Multiple Partition DBA Workshop
Information

Length: 4.0 Days
Ref: CL241G-X
Delivery method: Classroom
Price: EUR

Overview

This course teaches you to perform database administrative tasks using DB2 10.5 for Linux, UNIX, and Windows with Database Partitioning Feature (DPF) in a MPP environment. This course provides a fast path to DB2 partitioned databases for experienced single partition DBAs. These tasks include customizing the environment for a partitioned database system, creating and populating partitioned databases, designing a database for parallel use, and using partitioned DB2 utilities. The partitioned database access strategies selected by the DB2 Optimizer will be examined using the DB2 Explain tools. Various diagnostic methods will be presented including using various command options. Students will learn how to implement automatic archival for partitioned database logs and how to backup and restore a partitioned database. The REBUILD option of RESTORE, which can build a database copy with a subset of the table spaces, will be discussed. Improving application performance and the use of SQL statements to track database performance and health will be covered. This course provides a quick start to DB2 partitioned database administration skills for experienced relational Database Administrators (DBA).

Public

This is an intermediate course for experienced single partition DBAs and technical individuals, involved in planning, implementing, and maintain DB2 DPF partitioned databases.

Prerequisites

- Perform basic database administration tasks on a relational database system
- Use basic OS functions such as utilities, file permissions, hierarchical file system, commands, and editor
- State the functions of the Structured Query Language (SQL) and be able to construct DDL, DML, and authorization statements
- Discuss basic relational database concepts and objects such as tables, indexes, views, and joins
- Experience as a single partition DB2 database administrator

These skills can be developed by taking:

- Linux/UNIX Basics

- SQL Workshop (C3120/3E120)
- DB2 Family Fundamentals (CE030/3E030)
- Quick Basics of DB2 10.5 Administration for Windows (CL285) or DB2 10 for Linux, UNIX, and Windows Quickstart for Experienced Relational DBAs (CL485) or DB2 10 for LUW: Basic Administration for Linux and Windows (CL2X3)

Objective

- Describe the steps to install and customize DB2 in a partitioned environment
- Use Command Line tools to administer a partitioned database
- Create objects and load data into DB2 partitioned databases
- Analyze different row relocation strategies and implement a given logical database design using a partitioned DB2 database to support integrity and concurrency requirements
- Define a DB2 partitioned recovery strategy and perform the tasks necessary to support the strategy
- Identify how a database should be designed to take advantage of the parallel architecture
- Use DB2 utilities to manage data and maintain a partitioned database
- Perform the implementation of automated archival and retrieval of partitioned database logs
- Plan for supporting partitioned database and disaster recovery scenarios using DB2 database and table space backups using the RESTORE command
- Plan for supporting database and disaster recovery scenarios using DB2 database and table space backups using the RESTORE command with a REBUILD option
- Investigate current application and partitioned database activity that might indicate performance problems using monitoring options
- Use provided DB2 functions to evaluate efficient use of partitioned database memory
- Identify and use the tools that assist in tuning of multi-partition databases
- Utilize the DB2 Explain tools to examine partitioned database access strategies
- Analyze Explain reports to identify the access strategies selected by the DB2 Optimizer for execution of SQL statements including the selection of indexes, join techniques, sorts and table queues

Topics

- Unit 1: DB2 Partitioned Database Components and Concepts
- Unit 2: Installation
- Unit 3: Creating a Partitioned DB2 Database
- Unit 4: Partitioning and Database Partition Groups
- Unit 5: Partitioned Database Storage
- Unit 6: Moving Data
- Unit 7: Partitioned Database Backup and Recovery
- Unit 8: Database Rebuild Support
- Unit 9: Scaling the Database
- Unit 10: Explain with Partitioned Database Row Relocation Strategies

- Unit 11: Database Maintenance, Monitoring and Problem Determination
- Unit 12: Partitioned Database Performance Tuning and FCM Considerations

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