IBM Db2 12: Foundation for Relational DBAs

Duration: 4 Days **Course Code: CLA96G** **Delivery Method: Virtual Learning**

Overview:

This course provides relational DBAs with essential and advanced skills to manage, secure, recover, and optimize IBM Db2 v12.1 environments. Beginning with foundational concepts, participants will learn how to install Db2, configure instances, manage storage, and create database objects using both command-line and GUI tools. The course then expands into practical techniques for data movement, backup and recovery, and high availability configurations, equipping learners to maintain data integrity and ensure business continuity.
Security and concurrency are addressed in depth, including the implementation of user access controls, role-based permissions, encryption methods, Row and Column Access Control (RCAC), Label-Based Access Control (LBAC), and Trusted Contexts for multi-tiered architectures. Participants will also explore Db2's locking mechanisms and isolation levels to troubleshoot contention issues and manage concurrent workloads effectively.
Performance tuning and optimization are emphasized through detailed instruction on the query optimizer, indexing strategies, monitoring tools, and the use of EXPLAIN utilities. Learners will leverage the Db2 AI Optimizer, Design Advisor, and Data Management Console to analyze SQL access plans and improve system responsiveness across transactional and analytical workloads.
Through hands-on lab exercises and real-world scenarios, learners will gain the proficiency to manage Db2 environments efficiently and securely, diagnose issues quickly, and ensure high availability and performance in enterprise-scale deployments.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course targets relational DBAs beginners.

Objectives:

- After this course participants should be able to:
- Explain the Db2 versioning model and the role of Mod Packs, Fix Packs, and Cumulative Service Builds
- Configure and manage database settings using commands such as GET DB CFG, UPDATE DB CFG, RESET DB CFG, and AUTOCONFIGURE
- Use Db2 utilities such as EXPORT, IMPORT, RUNSTATS, and REORG to manage and maintain data and table performance
- Configure and monitor load operations using Db2 commands (LIST UTILITIES, MON_GET_UTILITY, and LOAD_QUERY) and assess table states
- Apply advanced recovery techniques such as schema-level logical backup and restore, redirected restore, and split mirror copies to support complex enterprise recovery scenarios
- Perform database maintenance tasks using RUNSTATS, REORG, and REORGCHK to optimize performance
- Analyze the behavior of lock modes and scopes and predict their impact on concurrency and performance
- Configure and administer security responsibilities using Db2 task authorities, including SECADM, DBADM, ACCESSCTRL, and DATAACCESS
- Configure and manage statistics profiles to guide and automate statistics collection procedures
- Utilize the Db2 Design Advisor to obtain and implement index recommendations for performance gains
- Use SQL-based table functions and administrative views to retrieve real-time and historical monitoring data

Prerequisites:

Participants should have the following skills:

- Basic knowledge of relational database concepts
- Familiarity with operating systems (Linux/Unix/Windows)

- Exposure to database administration tasks

Content:

Part 1: Essentials for Relational BAs

- Introduction to Db2 v12.1
- Db2 Command Line and GUI Tools
- The Db2 Database Manager Instance
- Creating Databases and Data Placement
- Creating Database Objects
- Recovery and Troubleshooting Fundamentals

Part 2: Data Management and Recovery

- Data Movement and Loading Fundamentals
- Backup and Recovery
- Database Maintenance, Monitoring, and Problem Determination

Part 3: Security and Concurrency

- Locking and Concurrency Control
- Security and Access Control Fundamentals
- More about Db2 Security and Access Control

Part 4: Performance Tuning and Optimization

- Statistics and Query Optimization
- Indexing for Performance Improvement
- Using the EXPLAIN Tools for Query Optimization
- Monitoring Fundamentals

Additional Information:

Official course book provided to participants.

Further Information:

For More information, or to book your course, please call us on +1 (800) 268 7737

ilt.customerservice@globalknowledge.com

www.globalknowledge.com/en-us/

Global Knowledge Training LLC, 103 Foulk Road, Suite 202, Wilmington, Delaware, 19803