

IBM Db2 12.1: Performance and Tuning Optimization for Relational DBAs

OEM: IBM • Code: CLA94G

COURSE DESCRIPTION

This course equips experienced database administrators with the skills needed to analyze, tune, and optimize the performance of IBM Db2 12 for Linux, UNIX, and Windows. Participants will learn how to interpret and influence the Db2 query optimization process using statistical metadata, develop efficient indexing strategies for high-performance workloads, and apply advanced tools such as EXPLAIN, db2pd, and the Db2 Data Management Console to evaluate and refine SQL access paths. The course also introduces the Db2 AI Optimizer and automation techniques that simplify statistics collection and performance diagnostics. Emphasis is placed on real-world use cases, practical monitoring methods, and proactive tuning practices to ensure scalable and efficient database operations in enterprise environments.

AUDIENCE PROFILE

- IT professionals and technical staff seeking hands-on training in this course's subject area.

PREREQUISITES

- Completed CLA90G, CLA91G, and CLA93G or have equivalent experience
- A working knowledge of Db2 database administration
- A basic understanding of SQL and query design
- Familiarity with Db2 system catalogs
- Exposure to Db2 utilities and monitoring commands

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- Configure and manage statistics profiles to guide and automate statistics collection procedures
- Evaluate the impact of the Db2 AI Optimizer on query plan generation and performance recommendations
- Design and implement optimal indexes for performance based on workload analysis and query structure
- Utilize the Db2 Design Advisor to obtain and implement index recommendations for performance gains
- Capture and interpret EXPLAIN data using tools such as db2exfmt, db2expln, and Activity Event Monitor
- Use SQL-based table functions and administrative views to retrieve real-time and historical monitoring data
- Leverage the Db2 Data Management Console to visualize resource usage and performance indicators

Module 1: Unit 1: Statistics and Query Optimization

- Statistics and Query Optimization

Module 2: Unit 2: Indexing for Performance Improvements

- Indexing for Performance Improvements

Module 3: Unit 3: Using EXPLAIN Tools for Query Optimization

- Using EXPLAIN Tools for Query Optimization

Module 4: Unit 4: Monitoring Fundamentals

- Monitoring Fundamentals