DB2 11 for z/OS Application Performance and Tuning

Information

Length: 5.0 Days
Ref: CV963G

Delivery method: Classroom
Price: INR

Overview

This Application Performance and Tuning course is designed to teach the students how to prevent application performance problems and to improve the performance of existing applications. Students will learn about indexes, table design, locking, and other issues relevant to application performance. This course includes paper exercises and machine exercises designed to reinforce the lecture content.

Public

This intermediate course is designed for DB2 for z/OS application developers, DB2 for z/OS DBAs, and anyone else who is responsible for application performance and tuning in a DB2 for z/OS environment.

Prerequisites

You should have:

- Familiarity with DB2 for z/OS application programming and SQL.

Objective

- Design better indexes
- Determine how to live with the optimizer (avoid pitfalls, help when necessary)
- Avoid locking problems
- Use accounting trace information to find significant performance problems in an operational application

Topics

- Introduction to Application Performance and Tuning
- List common causes of application performance problems
- Evaluate different approaches for detecting the problems
- Describe possible solutions
- Performance Analysis Tools
- Understand components of local response time (LRT)
Identify touch random (TR), touch sequential (TS), and fetch (F) time costs
Utilize VQUBE3 to estimate local response time (LRT)
Locate necessary time values in an accounting trace report
Draw and interpret a bubble chart
Towards Better Indexes
Understand DB2 index structure and usage
Evaluate the cost of creating a new index or modifying an existing index
Design the best possible index for a single table query
Describe prefetch operations and multi-index access
Multiple Table Access
Identify various join methods and join types
Predict table join order
Design the best indexes for joining tables
Optimize correlated and non-correlated subqueries
Utilize UNION, INTERSECT, and EXCEPT operations
Towards Better Tables
Evaluate clustering alternatives
Understand basic rules of normalization
Consider conditions for denormalization
Define materialized query tables
Learning to Live with the Optimizer
Describe the limitations related to dangerous predicates
Identify situations when the optimizer needs help with filter factor estimates
Massive Batch
Detect performance problems with massive batch jobs
Make batch jobs run faster
Locking Issues
Describe DB2 serialization
Understand transaction locking
Avoid locking problems in application design
Course Summary
Summarize the topics covered in this course