How to do a DB2 LUW Performance Review

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Abstract:

This **How to do a DB2 LUW Performance Review** class presents the research, process and impact of doing a performance review of your DB2 environments, systems, and applications. An overall system, architectural, database and performance tuning review can dramatically reduce costs and improve system and application performance, availability and scalability. By analyzing, many processing performance conditions and detailing various recommendations you can quickly improve database application performance, throughput and response time. This class details universal performance evaluation activities and techniques that have shown huge improvements within DB2 systems and applications on any Linux, UNIX or Windows DB2 environments.

This class discusses problem areas and the possible improvements in system configurations, database designs and batch, online and web applications. These techniques at many clients have dramatically reduced daily CPU consumption and saved clients millions of dollars in CPU costs or avoided costly hardware upgrades.

Outline

Chapter 1: Performance Overview
- Platform Properties
- Systems, Applications & Processes
- Applications Processing Characteristics
- Web & Java Characteristics
- System Settings
- Database Details

Chapter 2: DB2 Component Architectures
- DB2 LUW Components
- DB2 LUW Architecture
- DB2 LUW Agents
- DB2 DPF Overview
- DB2 DPF Configuration
- DB2 System Parameters
- Operational Flow

Chapter 3: System Research Techniques
- Basic Processing
- Performance Attributes
- File and Database I/O Characteristics
- CPU, Memory and I/O
- Sort Heap & Statistics Gathering

Chapter 4: LUW Research Methods
- System Settings
  - DB Configuration
  - DBM Configuration
- LUW Monitoring
  - DB2 Admin Tables
  - Event Monitors
  - Snapshot Monitors
- Monitoring Costs
- System and Application Methodology

Chapter 5: SQL Statement Analysis
- SQL Access Paths Overview
- EXPLAIN SQL Access Paths
- Explain Tables
- Data Studio Visual Explain
- How to Improve I/O Bound Processing
  - Types of Parallelism
- How to Improve CPU Bound Processes
  - Work Load Manager Overview

Chapter 5: Snapshot Monitoring Example
- Setting up Snapshot tables
- Command reference
- What to look for within the Snapshot Tables

Chapter 6: Event Monitoring Example
- Setting up Event tables
- Command reference
- What to look for within the Event Tables

Chapter 7: DB2 "Galileo"
- New "rumored" features

Appendix 1: DB2 LUW Architecture & Memory Model
Appendix 2: SQL Access Path Chart
Appendix 3: DB2 9.7 Performance Features List
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Additional or custom material substituted per request