

DB205 DB2 Database & System Administration

Course description This course is designed to provide detailed information on the administration of DB2 databases, the DB2 sub-system and other system resources. The course focuses on the various DBA tasks in both production and development environments and includes practical case studies to reinforce theory. A brief introduction to SQL is also provided.

Who Should Attend System/Database administrators responsible for planning and/or supporting the DB2 system and its data.

Pre-Requisites A working knowledge of DB2 and SQL is recommended.

Duration 4 Days

DB2 Introduction

Host Environments
DB2 Object
Architecture
DB2 System
Architecture

DB2 Object Maintenance

SQL DDL Overview
Creating Indexes
Converting Indexes
Tablespace Design
Issues

DB2 Internal Data Formats

Tablespace Page
Format
Space Maps
Free Space Maps
Data Page Format
Row Format
Effect Of Update
Activity
VSAM Space
Management
Tablespace Sizing

DB2 Indexes

Functional Overview
Index Types
Index Structure
Speed
Ordering
Clustering
Entity Uniqueness
Index Page Format
Index Space
Management
Index Sizing

The Load Utility

Utility Control
Statements
Use Of Resume
Use Of Replace
Use Of Log
R. I. Considerations

The Check Utility

Check Data / Index
R. I. Considerations
Exception Tables

The Reorg Utility

When To Reorg
Reorg Phases
Reorganizing
Tablespaces
Reorganizing Indexes
Utility Control
Statements

Access Mechanisms

Indexes
Tablespace Scans
Matching Index Scan
Non-Matching Index
Scan
Clustered / Non-
Clustered Indexes
Index Only Access
Multi-Index Access
Sequential Prefetch
List Prefetch
Merge Scan Join
Nested Loop Join
Hybrid Join
Optimize For ...
Predicate Types
Explain

The Runstats Utility

DB2 Catalog Review
DB2 Optimizer
Review
When To Run
Runstats

Backup & Recovery

The Copy Utility
The Mergecopy Utility
The Recover Utility
The Quiesce Utility
The Modify Utility
Point In Time
Recovery

Locking & Concurrency

The Need For Locking
Index Types
Concurrency
Lock Types
Lock Modes
Lock Duration
IRLM Locking Options
Performance Guide-
Lines

DB2 Security

The Run-Time
Environment
Secure Resources
Authorisation Id's
Privileges
Authorities
Grant / Revoke
Object Ownership
Operational
Considerations
RACF

DB2 Resource Limit Facility

Functional Overview
Starting / Stopping
RLF
Altering RLF

Version 6 Enhancements

Utility Enhancements
New Page Sizes
Large Tablespaces
Alter Column
SQL Enhancements